

Government of Gujarat
The Gujarat Skill Development
Mission (GSDM) under the Labour,
Skill Development and Employment
Department (LSD & ED)



Gujarat Apex Training Institute

Invites for e-Bids.
From Original Equipment
Manufacturers (OEMs) and/or
authorised Channel Partners (CPs)

Supply of Goods, Tools &
Equipment
for
an International Standard IToT
in Fitter Trade
at ITI Tarsali, Gujarat, India

Package 1: Fitter Trade

IFB NO: GSDM/GATI/IToT (08)-2023/09

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B. Abbreviations

IFB	Invitation for Bid
EMD	Earnest Money Deposit
PBG	Performance Bank Guarantee
BoQ	Bill of Quantity
IToT	Institutes for Training of Trainers
NIT	Notice Inviting Tenders
TVET	Technical and Vocational Education and Training
DET	Directorate of Employment and Training
LSD & ED	Labour, Skill Development and Employment Department
GSDM	Gujarat Skill Development Mission
CP	Channel Partner
CITS	Craftsman Instructor Training Scheme
OEM	Original Equipment Manufacturer
CoE	Centre of Excellence
JV	Joint Venture
GSOF	General Shop Outfit
OSTE	Other Support Training Equipment
HT	Hand Tools
MISC	Miscellaneous
ITE	IT equipment
PPE	Personal Protective Equipment
CON	Consumable & Spares
FUR	Furniture
AATO	Average Annual Turn-Over
GCC	General Conditions of Contract
SCC	Special Conditions of Contract
EXP	Experience
CMC	Comprehensive Maintenance Contract
EWY	Extended Warranty
SWY	Standard Warranty
ToE	Team of Expert
DSC	Digital Signature Certificates
PKG	Package
FIN	Financial
INR	Indian Rupee

C. Definitions and interpretation

In the invitation to tender, tendering condition, contract, general conditions of contract and special conditions of contract, unless the context otherwise requires the following interpretation shall be valid.

- **“Bid”** shall mean the quotation in response to the NIT submitted with EMD (wherever is applicable), if applicable and within the period mentioned in the NIT.
- **“Bidder”** means an individual, an Original Equipment Manufacturer (OEM) firm, or its authorized Channel Partner (CP), a company whether incorporated or not, an association of person or joint venture who has submitted a bid to execute the contract and shall be deemed to include his successors, heirs, executors, administrators and permitted assignees, as the case may be.
- **“Consignee”** shall mean the authorized representative or officer of the purchaser at the site to whom the stores are required to be delivered in the manner indicated in the contract.
- **“Contractor”** means a successful bidder with whom a contract agreement has been entered to by the purchaser and shall be deemed to include his successors, heirs, executors, administrators and permitted assignees, as the case may be.
- **“Contract”** or **“Purchase Order”** means and comprises of a letter or e-mail or ink signed or digitally signed document issued/sent by the purchaser conveying acceptance of bidder’s/contractor’s bid submitted in response to the invitation to tender, tendering conditions, general and special conditions of contract specified in the NIT within the validity of the bid and any subsequent amendments/alterations thereto made on the basis of mutual agreement.
- **“Delivery Date”** means date of completion of contract excluding warranty period and its obligations as stipulated in the contract.
- **“Mission Director,”** means the Mission Director, GSDM authorized in writing to execute the contract on behalf of the DSD/LSD&ED, GoG.
- **“Earnest Money Deposit (EMD)”** means the deposit made in the form and manner specified in the NIT by the participating bidder towards bid security.
- **“HINDRANCE”** means an event resulting in stoppage or delay of work because of the purchaser as recorded by the contractor and authenticated by the purchaser.
- **“Team of Experts/Inspectors”** means any engineer/officer nominated and deputed by the purchaser or their appointed consultants or quality surveillance agency or any other person authorized by the purchaser from time to time to act as his representative for the purpose of inspection of stores under the contract.
- **“Notice Inviting Tender (NIT)”** means invitation to tender, tendering condition, general conditions of contract, special conditions of contract, if any, and any other document mentioned thereto.
- **“Parties”** means the parties to the contract, i.e., the contractor and the purchaser named in the contract.
- **“Performance Bank Guarantee (PBG)”** means the deposit made in the form and manner specified in this document by the contractor towards satisfactory performance of the stores/plant supplied.
- **“Purchaser”** means Mission Director, Gujarat Skill Development Mission, Gandhinagar or any other authorized officer and includes his successor or assignees.
- **“Goods”** means the materials, goods, machinery, plants, equipment or parts thereof and the civil & construction works specified in the contract which the contractor has agreed under the contract.
- **“Sub-Contractor”** means any contractor engaged by the contractor with the prior approval of the purchaser in relation to the contract.

Section I. Invitation for Bids (IFB)

Invitation for Bids (IFB) No: GSDM/GATI/IToT (08)-2023/09

1. The MD, Gujarat Skill Development Mission (GSDM), Gandhinagar (herein after referred to as **the Purchasers**) has published this Tender for the “Supply of Tools and Equipment” for an International Standard **IToT in Fitter Trade at ITI Tarsali, Gujarat, India**. The estimated Tender Value is **₹ 12,13,79,000/- (Twelve Crore Thirteen Lakh Seventy Nine Thousand Only)**
2. GSDM invite bids from the **Original Equipment Manufacturers (OEMs)** having Global and/or National presence or from their authorised **Channel Partners (CP)** for Supply of Tools and Equipment for one of International Standard IToT in **Fitter Trade at ITI Tarsali, Gujarat, India**.
3. The tender document is available in the e-procurement portal. Bidder shall submit their bids on <https://tender.nprocure.com/> only. The tenders are to be submitted/uploaded online only. Tenders submitted in any other manner will not be accepted. Tenderers are required to obtain Level III digital signature from designated firms (available on e-procurement portal) and then register with the Government of Gujarat e-procurement platform and submit tenders by using their user ID and digital signature.
4. The detailed tender notice can also be seen in GSDM Website <https://skills.gujarat.gov.in>.
5. Right to reject any or all the tenders without assigning any reasons thereof are reserved by the Purchaser GSDM which will be binding to all bidders.
6. The bidders are advised to note the qualification criteria specified in Section II to qualify for award of the contract. The tenderers are required to submit/upload tenders consisting of documents/information as specified in Clause of ITB. In two covers. The First cover i.e., Technical Bid consisting of documents/information as specified in Clause of ITB and Second Cover i.e. Financial Bid consisting of Price Schedule for the equipment as well as for AMC, CMC (wherever required) as specified in Clause of ITB.
7. The bidder will have to submit **Non refundable Bid Processing Fees of Rs. 15,000/- (Rupees Fifteen Thousand Only) and Earnest Money Deposit (E.M.D.) of ₹ 36,41,370 /-** (refundable) in favour of **Gujarat Skill Development Society payable at Gandhinagar** on or before date & hours of submission of bid in a sealed cover at GSDM office with the heading **“Tender Fee and EMD for Tender no IFB NO: GSDM/GATI/IToT (08)-2023/09 for Supply of Tools and Equipment as per the scope of supply specified in the Section-6, Clause 6.1 List of Goods and Scope of Supply and Technical Specification”** for one of the International Standard **IToT in Fitter Trade at ITI Tarsali, Gujarat, India**
8. EMD as mentioned above, shall be submitted in the form of **Demand Draft (DD)** OR in the form of an unconditional **Bank Guarantee(BG)** (which should be valid for Six months from the last date of bid submission) of any Nationalized Bank including the public sector bank or Private Sector Banks or Commercial Banks or Co-Operative Banks and Rural Banks (operating in India having branch at Gandhinagar), payable at Gandhinagar (as per prescribed format given at **Annexure A**) and must be submitted along with the covering letter.
Bank Details to issue EMD in the form of BG/DD
Name of Account - Gujarat Skill Development Society
Account no - 5745869301
Account type - Saving
Bank - Kotak Mahindra Bank
Branch - Sector 16, Gandhinagar
IFSC - KKBK0000879
9. Proposal in the form of BID is requested for the item(s) in complete accordance with the documents to be uploaded as per guidelines. **Bidder shall submit/upload their bids on <https://tender.nprocure.com/>**

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IToT Tarsali – Fitter Trade

IFB NO: GSDM/GATI/IToT (08)-2023/09

10. **Exemption certificate for Earnest Money Deposit should not be acceptable.** Please stay touring Website - Bidder shall submit their bids on <https://tender.nprocure.com/> for any corrigendum / addendum / modification till last date of Online submission.

Sd/-

Mission Director,
Gujarat Skill Development Mission
Gandhinagar, Gujarat

Package-2

IToT Tarsali – Fitter Trade

IFB NO: GSDM/GATI/IToT (08)-2023/09

(Two Cover-e-procurement)
Gujarat Skill Development Mission
(Govt. of Gujarat)

Dr. Jivraj Mehta Bhavan, Block No. 2, Third floor,
Gandhinagar-382010, Gujarat, India

Email: to-gsdm-gnr@gujarat.gov.in

Schedule of Tender:

Tenders for:	:	Supply of Tools and Equipment as per the scope of supply specified in the Section-6, Clause 6.1 “List of Goods and Scope of Supply and Technical Specification” for one of the International Standard IToT in Fitter Trade at ITI Tarsali, Gujarat, India
Tender reference	:	GSDM/GATI/IToT (08)-2023/09
Date of commencement of downloading of tender document	:	29 – 09 – 2023
Email for clarification to be sent by Date/Time	:	05 – 10 – 2023 18:00 HRS
Time and date of pre-bid meeting	:	06 – 10 – 2023 16.00 HRS
Last date for downloading of tender document from the e-procure platform https://tender.nprocure.com/	:	20 – 10 – 2023 18.00 HRS
Last date for uploading bids on https://tender.nprocure.com/	:	20 – 10 – 2023 18.00 HRS
Last date for submitting bid (hard copy)	:	25 – 10 – 2023 18.00 HRS
Date and time of opening of first covers (technical tenders) of tenders	:	26 – 10 – 2023 16.00 HRS

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IToT Tarsali – Fitter Trade

IFB NO: GSDM/GATI/IToT (08)-2023/09

Date and Time of opening of second covers (financial tenders) of tenders	:	06 – 11 – 2023 15.00 HRS
Place of opening of tenders /pre-bid meeting & address for communication	:	Office of the M.D. Gujarat Skill Development Mission, 3rd Floor, Block No. 2, Dr. Jivraj Mehta Bhavan, Gandhinagar - 382010, Gujarat, India. Phone: 91-8160304501 Email: to-gsdm-gnr@gujarat.gov.in

Section 2: Instruction to Bidders

2.1 General

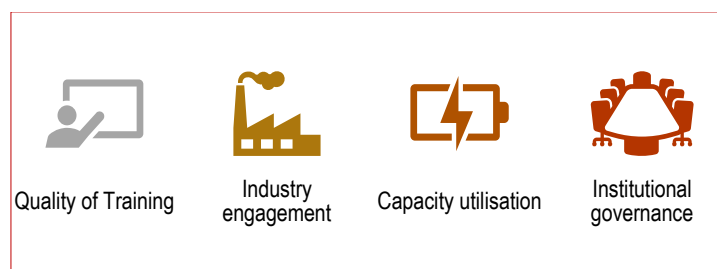
The bidders are advised to study the bid document carefully. Submission of bids shall be deemed to have been done after careful study and examination of the bid document with full understanding of its implications. This section provides general information in the form **Instructions to Bidders (ITB)**, important dates and addresses and the overall eligibility criteria for the bidders.

2.1. The Purchaser

The **Gujarat Skill Development Mission (GSDM), Gandhinagar** (herein after referred to as the Purchasers) Invites for **e-Bids in Two Bid System**, from eligible bidders - **Original Equipment Manufacturers (OEMs)** and/or authorised **Channel Partners (CPs)** either individual and/or through **Joint Venture (JV)** to **Supply of tool and equipment** for an International Standard **IToT in Fitter Trade at ITI Tarsali, Gujarat, India**. Proposal in the form of BIDs is requested for the item(s) in complete accordance with the documents to be uploaded as per the guidelines of this document. Bidder shall submit their bids on e-procurement portal <https://tender.nprocure.com/>. The bidders are advised to study the bid document carefully. Submission of bids shall be deemed to have been done after careful study and examination of the bid document with full understanding of its implications. This section provides general information about the Issuer (GSDM), important dates and addresses and the overall eligibility criteria for the bidders. Gujarat Skill Development Mission (herein after referred to as “GSDM” or “Purchaser”) a Society constituted under the Department of Labour, Skill Development & Employment (LSD&ED), and Director Employment and Training (DET), Government of Gujarat. The **scope of supply** and other requirement of this project are specified in this Bid document.

2.2. Introduction to the Project GATI

The Government of Gujarat with a vision in consistent with “Skill India” and “Make in India” initiatives has taken several proactive measures for accelerating and enhancing the quality of skilling and Technical and Vocational Education and Training (TVET). The Directorate of Employment and Training (DET) under the Labour, Skill Development and Employment Department (LSD & ED), Government of Gujarat, is responsible for vocational and skill development training in the State of Gujarat and has 287 Industrial Training Institutes (ITIs) catering to almost 1.3 lakh trainees every year in various sectors including automotive, fabrication, capital goods and manufacturing, etc. Gujarat has an evolving skilling eco-system which has come a long way from offering conventional vocational education to offering industry-relevant hi-tech skilling through active industry participation. Despite that the state is one of the most industrialised states in the country and is placed in a much more comfortable position, compared to its peers from across the country, there are several factors that inhibit the skill development eco-system from scaling up to the desired levels which can be mainly categorised into the following areas:



Of these, which are inherent to the industrial training eco system from across the country, the quality of training. to establish Gujarat Apex Training Institute (GATI). The vision of the LSD & ED, GoG to establish multiple **Centres of Excellence (CoEs)** across the state and **Institutes of Training of Trainers (iToTs)**. These institutes would be offering advanced technology training courses for trainers as well as for trainees and industry personnel in a sustainable manner to benefit vocational aspirational students and industry in Gujarat. All these institutions would be supported by a Hub based out of Ahmedabad. The main proposed goals of the GATI project are:

- World class advanced technology training institutes in the state of Gujarat, based on international standards, systems and technical expertise.
- High-tech-oriented technical training in combination with technical services, blended learning and consultancy will be offered,
- Market-driven long-term and short-term courses in the domain of modern technology as complementary measures,
- Strong interface with industry to secure relevant trainers,
- GATI will train the teachers from vocational training institutes towards development and upgradation for enhanced outreach and impact.

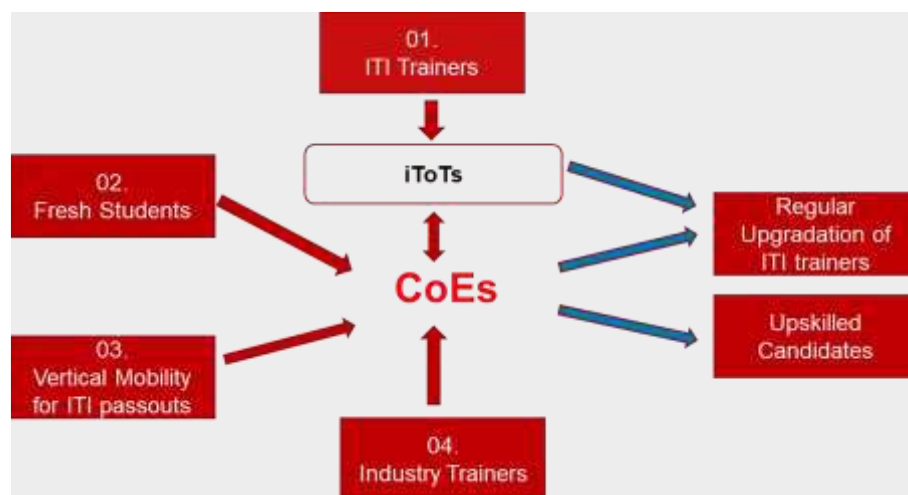


Figure 1: The Concept of CoEs

The CoEs will simultaneously run industry driven courses, trainings for industry trainers, trainings for fresh candidates as well as upskilling for ITI pass candidates/ Diploma holders along with the regular training of ITI trainers. The iToTs would be institutes solely dedicated to training of ITI's trainers.

Concept of iToT

For this project under JICA funding, one to be established in each of the eight trades finalised by DET.

- Institutions or labs in these institutions solely dedicated for instructor training only.
- Training Programmes to be affiliated with the Craftsman Instructor Training Scheme (CITS) of DGT
- Equipment/ Machinery to be upgraded against international standards.
- Material/Curricula/ Pedagogy related upgradation and developments can be fed through the CoEs
- Directorate General of Training (DGT), MSDE, Government of India has sanctioned 18 ITI's and 1 ITC centre in the state as Institute of Training of Training (iToT) centres.
- 8 such institutes across the state are targeted for upgradation to international standards and established as iToTs for the identified trades.

List of iToTs

S.No.	Sector	Name of Trade	IToT Location
1	Automotive	Mechanic (Diesel)	Bardoli
		Mechanic (Motor Vehicle)	Tarsali
2	Manufacturing	Fitter	Tarsali
		Machinist	Surat
3	Fabrication	Fitter	Tarsali
			Tarsali
4	Electrical and Electronics	Wireman	Kuber Nagar
		Electrician	Vyara

Concept of Hub:

“Kaushalya”-The Skill University will be developed as hub for the GATI project. The CoEs and iToTs as described above will be supported by this hub based out of Ahmedabad. Functions of the Hub will be - Certification of courses, Affiliation of iToT and CoE as Skill Institutes, Assessment of courses developed under the project, Training of trainers. GIZ offers to assist the Hub by establishing relevant industry linkages.

2.3. Scope and Title of the Bid

The invitation to bid is for **“supply of Tools and Equipment and perform allied minor civil and electrification related works during installation and commissioning”** as per the list of Goods and Scope of Works and Technical Specification scope of Supply as indicated in Section 6, Clause 6.1 of this bid document, for one of eight Institutes for Training of Trainer (IToT) in **Fitter Trade at ITI, Tarsali, Gujarat, India**. In connection with the Invitation for Bids (IFB) indicated in the ITB, the Purchaser, as indicated in the ITB, issues this Bidding Document for the supply of Goods and Related Services (includes allied minor civil and electrical works during installation & commissioning) incidental thereto as specified in Scope of Work. The name, identification and number of Packages of the Bidding are provided in the Bid Data Sheet (BDS).

2.4. Eligible Bidder/Tenderers

2.4.1 Pre-Qualification/Eligibility Criteria

The intersted bidder(s) must possess the requisite experience, strength and capabilities in supplying Goods and providing services necessary to meet the essential **pre-qualification criterias (PQC)** as described in the Bid document. Keeping in view the complexity and volume of the supplies and/or work involved, following criteria are prescribed as the eligibility criteria for the bidder interested in undertaking the project. The bidder must also possess technical know-how and financial wherewithal that would be required to successful completion of the required supplies and/or works sought by the Purchaser within the timeline/delivery schedule. The Bids must be complete in all respect and should cover entire scope of Scope of Supply and Work as stipulated in the bid document. This invitation to bid is open to all bidders who qualify the pre-qualification eligibility criteria as tabulated below:

Pre-Qualification/Eligibility Criteria

#	Pre-Qualification Criteria	Required documentary evidence to be submitted
I	The bidder (either OEM and/or authorized Channel Partner) should have been in business of manufacturing and supply of Fitter and/or allied Trades equipment, (a) for a minimum of 5 years, and (b) must have valid ISO 9000 certification	1) Copy of Incorporation of Business and 2) relevant/latest ISO 9000 certificate.
II	The lead bidder(s) may be an OEM or its Channel Partner (CP) or Lead Partner (LP) of combined Joint Venture (JV) of channel partners (upto three only). The bidder (OEM/LP/JV) must have manufactured, tested and supplied at least 50 % of the required quantity listed under category of 'General Shop Outfit' as indicated under the 'Scope and supply schedule' of this tender	1) Manufacturing Authorisation Certificate (if the bidder is a Channel Partner). 2) Undertaking from the OEM on manufacturing of 50% of the items listed under the category of "General Shop Outfit equipment"
III	The minimum financial performance Average Annual Turnover (AATO) of the OEM in any three (03) of last five audited Financial Year starting from 2018-19, 2019-20, 2020-21, 2021-22 and 2022-23, should not be less than One Hundred Crore (100 Crore) . The AATO of the Lead Bidder (in case of JV) should not be less than Eight Crore (8 Crore) per year in any three financial years of last five audited financial years.	1) CA certificate mentioning turnover from the said business of OEM and CP in three of last five audited Financial Year starting from 2018-19, 2019-20, 2020-21, 2021-22 and 2022-23 of both OEM and CP
IV	The bidder must have positive net worth and should be Profit making in any three of last five audited financial years ending on 31st March, 2023	1) Audited and Certified and Profit/Loss Account of last 4 Financial Years should be enclosed. Copy of CA certificate mentioning net profit of the bidder should be enclosed
V	The Bidder must submit Tender Fee ₹15,000/- and Bid Security/EMD amount of ₹ 36,41,370 /- (Rupees Thirty-Six Lakh Fourty One Thousand Three Hundred Seventy only) along-with the Technical Bid	1) in the form of Bank Guarantee (BG)/ Demand Draft (DD) to be deposited in the name of: GUJARAT SKILL DEVELOPMENT SOCIETY, Payable at Gandhinagar
VI	The bidder must provide compliance sheet point/item wise by mentioning make/model of the items along with the detailed specification. The offered items should confirm the specification	1) Filled Technical bid along with OEM catalogues brochure/leaflets/technical information including make & model of the item. The technical

	of tender and 100% items passed with given technical specification	specifications of all quoted items should match with details on OEM website. 2) The bidder is required to submit OEM undertaking for the same in the bid submission
VII	The bidder should not have been Black-listed or proceeding underway by Government of India / Government of Gujarat/ any other state	1) An undertaking to this effect in the company's letterhead signed by authorized signatory to be submitted

2.4.2 Other Qualification/Eligibility Criteria

- a) Bidders should not be associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under this Invitation of Tenders
- b) Bidders shall not be under a declaration of ineligibility for corrupt and fraudulent practices issued by Government of Gujarat and/or India or any of the State Govt of India.
- c) A Bidder may be a natural person, private entity, or government owned enterprise or any combination of them with a formal intent to enter into an agreement or under an existing agreement in the form of a joint venture. In the case of a joint venture(JV), (i) all parties to the Joint Venture shall be jointly and severally liable; and (ii) the Joint Venture shall nominate a representative who shall have the authority to conduct all businesses for and on behalf of any and all the parties of the Joint Venture during the bidding process and, in the event the Joint Venture is awarded the Contract, during contract execution.
- d) A Bidder, and all parties constituting the Bidder, shall have the nationality of an eligible country, in accordance with eligible countries. A Bidder shall be deemed to have the nationality of a country if the Bidder is a citizen or is constituted, or incorporated, and operates in conformity with the provisions of the laws of that country. This criterion shall also apply to the determination of the nationality of proposed subcontractors or suppliers for any part of the contract, including related services.
- e) A Bidder shall not have a conflict of interest. All Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to be in a conflict of interest with one or more parties in this bidding process if any of, including but not limited to, the following apply (i)they have controlling shareholders in common; or (ii)they receive or have received any direct or indirect subsidy from any of them; or (iii) they have the same legal representative for purposes of this Bid; or (iv)they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to material information about or improperly influence the Bid of another Bidder, or influence the decisions of the Purchaser regarding this bidding process; or (v)a Bidder participates in more than one bid in this bidding process, either individually or as a partner in a joint venture, except for alternative offers permitted. This will result in the disqualification of all Bids in which it is involved. However, subject to any finding of a conflict of interest in terms, this does not limit the participation of a Bidder as a subcontractor in another bid or of a firm as a subcontractor in more than one Bid; or (vi)a Bidder or any affiliated entity, participated as a consultant in the preparation of the design or technical specifications of the goods and services that are the subject of the Bid; or (vii) a Bidder was affiliated with a firm or entity that has been hired (or is proposed to be hired) by the Purchaser as Project Manager for the contract.
- f) A firm shall not be eligible to participate in any procurement activities, administered, or supported project while under temporary suspension or debarment by LSD & ED/DET/GSDM) pursuant to the Anticorruption Policy, whether such debarment was directly imposed by LSD & ED, or enforced by DET/GSDM pursuant to the Agreement for

Mutual Enforcement of Debarment Decisions. A bid from a temporary suspended or debarred firm will be rejected.

- g) Government-owned enterprises in the Purchaser's country shall be eligible only if they can establish that they (i) are legally and financially autonomous having global presence, (ii) operate under commercial law, and (iii) are not a dependent agency of the Purchaser. Bidders shall provide such evidence of their continued eligibility satisfactory to the Purchaser, as the Purchaser shall reasonably request.

All details and the supportive documents for the above should be uploaded in the n-Procure Portal. Bidder(s) who wish to participate in this bid must submit EMD as per bid requirement, otherwise, shall not be considered for evaluation and disqualified.

2.5. Eligible Goods and Services

- a) All Goods and Related Works/Services to be supplied under the Contract, shall have their country of origin in eligible source countries, and all expenditures under the Contract will be limited to such **supply of Goods** and related Works/Services at the time of installation and commissioning.
- b) For purposes of this clause, the term "Goods" includes commodities, raw material, machinery, equipment, and industrial plants; and "related works/services" includes services such as insurance, transportation, minor civil/construction works during installation & commissioning, training, and initial maintenance.
- c) The term "country of origin" means the country where the goods have been mined, produced, manufactured, or processed; or through manufacture, processing, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its imported components.
- d) The nationality of the firm that produces, assembles, distributes, or sells the goods shall not determine their origin.

The Bid Document

2.6. Contents of the Bid Document

The Bid document consists of documents which include all the matter below and should be read in conjunction with any addenda issued in accordance with ITB Clause.

- Section 1 : Invitation for Bids (IFB)**
- Section 2 : Instruction to Bidder (ITB) and Bid Data Sheet (BDS)**
- Section 3 : General Conditions of Contract (GCC)**
- Section 4 : Special Conditions of Contract (SCC) and Bid Data Sheet SCC**
- Section 5 : Scope of Supply with Schedule**
- Section 6 : Technical Specifications**
- Section 7 : Tender Forms & Formats**

The Invitation for Bids (IFB) Notice issued by the Purchaser is not part of the Bid document. The Purchaser is not responsible for the completeness of the Bid Document and its addenda, if they were not obtained directly from the source stated by the Purchaser in the IFB. The Bidder(s) is expected to examine all instructions, forms, terms, and specifications in the Bid document. Failure to furnish all information or documentation required by the Bid document may result in the rejection of the Bid. The Bidder shall bear all costs associated with the preparation and submission of its tender, and MD, GSDM, hereinafter referred to as "the Purchaser", will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the tender process.

2.7. Clarification of Bid Document

- a) A prospective Bidder seeking any clarifications on the bidding document shall contact the Purchaser in writing on the e-mail ID as indicated in this Bid document, prior to the date of the Pre-bid meeting.
- b) The Purchaser will respond in writing / e-mail to any request for clarification, provided that such request is received no later than 15 days prior to the deadline for submission of Bids.
- c) The Purchaser shall response to all Bidders who have acquired the Bidding document, including a description of the inquiry but without identifying its source.
- d) Should the Purchaser deem it necessary to amend the Bid document as a result of a clarification, it shall do so following the procedure under the **Clause - “Amendment of Bid Document”** and written response of the Purchaser's (including an explanation of the query but without identifying the source of inquiry) will be uploaded on the e-procurement portal.
- e) The prospective tenderers are requested to view the same on the e-procurement portal <https://tender.nprocure.com/>
- f) **No separate communication would be sent to any individual bidders.**

2.8. Amendment of Bid Documents

At any time prior to the deadline for submission of the Bids, the Purchaser may amend the Bidding Document by issuing addenda. Any addendum issued shall be part of the Bid Document and shall be communicated in writing to all who have obtained the Bid document directly from the Purchaser in accordance with **ITB 2.8** To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Purchaser may, at its discretion, **extend the deadline for the submission of the Bids, pursuant to Clause 2.17.** The amendment will appear on the web page of the website Bidder shall submit their bids on www.nprocure.com which shall be binding on all prospective tenders. Efforts will be made to send e-mail communication will be sent to all registered tenderers.

2.9. Preparation of Bids

2.9.1 Language of Bid

The Bid prepared by the Bidder(s), as well as all correspondence and documents relating to the tender exchanged by the Bidder and the Purchaser, shall be written in English language. Supporting documents and printed literature furnished by the bidders may be in another language provided they are accompanied by an accurate translation of the relevant passages in the English language in which case, for purposes of interpretation of the Tender, the translation shall govern.

2.9.2 Documents Comprising the Bid

The Bid shall comprise two envelopes submitted simultaneously, one containing the Technical Bid and the other containing EMD / Bid Security, both envelopes enclosed together in an outer single envelope. The bidders are required to submit soft copies of their bids electronically on the n-Procure Portal, using valid Digital Signature Certificates (DSC). The instructions given below are meant to assist the bidders in registering on the Portal, prepare their bids in accordance with the requirements and submit their bids online on the n-Procure Portal. Bidders should take into account any **corrigendum published** (if any) on the tender document before submitting their bids. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid

documents must be submitted, the number of documents- including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid. The bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG /JPEG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing the size of the scanned document. The bidder should prepare the Bid Security/EMD as per the instructions specified in the tender document. The original should be posted/couriered/submitted in person to the concerned official, at the latest by the last date of bid submission or as specified in the tender documents. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time, otherwise the uploaded bid will be rejected. Bidders are requested to note that they should submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled out by all the bidders. Bidders are required to download the BoQ file, open it and complete the white colored (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.

The tender prepared by the Bidder shall comprise the following, the scanned copies of which shall be uploaded on the e-procurement platform in two covers containing the documents as follows:

2.9.3 Technical Bid

Technical Bid Submission Sheet (Form 1A) and Technical Bid Compliance report (Form 1B) to be filled by the Bidders and submitted all necessary documentary evidence.

- a) written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB.
- b) documentary evidence in accordance with ITB 2.4, establishing the Bidder's eligibility to bid;
- c) documentary evidence in accordance with ITB 2.5, that the Goods and Related Services to be supplied by the Bidder are of eligible origin.
- d) documentary evidence in accordance with ITB, that the Goods and Related Services conform to the Bidding Document.
- e) documentary evidence in accordance with ITB 2.4, establishing the Bidder's qualifications to perform the contract if its Bid is accepted; and any other document required in the ITB.
- f) **Earnest money deposit and tender processing fee** furnished in accordance with ITB Clause 2.9.2.
- g) Documentary evidence established in accordance with ITB **Clause 2.4.2** and **Clause 2.4.1** that the Bidder is eligible to tender and is qualified to perform the contract if its tender is accepted.
- h) Documentary evidence established in accordance with ITB that the goods and ancillary services to be supplied by the Bidder are eligible goods and services and conform to the tender documents; and
- i) Equipment and Quality controls employed by the OEM in manufacturing of the equipment as per proforma given in this document.

- j) Annual financial turnover for the last three financial years (from **FY: 2018-19, 2019-20, 2020-21, 2021-22 and 2022-23**) duly certified by a Chartered Accountant.
- k) Notarized self-declaration stating that the Bidder is not blacklisted with any Government/Quasi-Governmental Organization in India and **will not supply refurbished equipment.**
- l) Any other document/information required to be completed and submitted in accordance with the provisions of the tender document to support the capacity of the Bidder to perform the contract satisfactorily.

2.9.4 Price Bid

A Financial Bid Form and Price Schedules completed in accordance with **ITB Clauses 2.9.4, 2.10 and 2.11**. The following original documents in a separate sealed envelope/cover shall be submitted by post/courier along-with Technical Bid to the Purchaser for verification and scrutiny **within five days after the last date of submission/uploading of tender:**

- a) Original Tender Fee deposit instrument such as Demand Draft/Bank Guarantee
- b) Original earnest money deposit instruments such as demand draft/Bank Guarantee
- c) Original affidavit vouching for the correctness of the information furnished and documents uploaded;

The demand draft, banker's (cashier's) through e-procurement portal etc. would be checked for their genuineness, adequacy with respect to amount, validity and acceptability. The bids of only those tenderers who have provided the originals as above for verification and review and found acceptable and those who have paid the **stipulated tender processing fee and adequate earnest money deposit either by DD/BG or acceptable instruments** would be opened at the appointed time to be notified on the e-procurement portal. In case of discrepancy between the uploaded documents and the originals, the originals shall prevail.

The Bidder shall complete the Tender Forms (both Technical Tender Form as well as Financial Tender form) as detailed in this Bid document and the Price Schedule furnished in the tender documents, indicating the goods to be supplied, a brief description of the goods, their country of origin, quantity and prices. The completed Tender Forms and Price Schedule shall be uploaded through e-procurement portal.

2.10. Tender Price

- a) The Bidder shall indicate on the Price Schedule the unit prices and total tender prices of the goods it proposes to supply under the Contract. To this end, the tenderers are allowed the option to submit the tenders for any one or more schedules specified in the 'Schedule of Requirements' and to offer discounts for combined schedules. However, bidders shall quote for the complete requirement of goods and services specified under each schedule on a single responsibility

basis, failing which such tenders will not be taken into account for evaluation and will not be considered for award.

- b) Prices indicated on the Price Schedule shall be entered separately in the following manner:
- (i) The unit rate should be quoted against each line item listed in the respective Annexures attached in this bid. Quantities can be increased or decreased by the Purchaser and the bidder has to supply deviated quantities at the rates prescribed and approved by Purchaser in the Bid document.
 - (ii) Offered price should **be exclusive of GST and inclusive of levies such as excise, insurance, transportation etc** (as indicated in the scope of supply and schedule)
 - (iii) A discount if offered should not be mentioned separately. It should be included in the offered price.
 - (iv) If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If the Bidder does not accept the correction of the errors, its bid will be rejected.
 - (v) The quoted prices shall be **valid for 365 days** from the date of opening of the financial bid.
- c) The Bidder's separation of the price components in accordance with ITB Clause above will be solely for the purpose of facilitating the comparison of tenders by the Purchaser and will not in any way limit the Purchaser's right to contract on any of the terms offered.
- d) Prices quoted by the Bidder shall be fixed during the Bidder's performance of the Contract and not subject to variation on any account. A tender submitted with an adjustable price quotation will be treated as non-responsive and rejected.
- e) **Tender Currency - Prices shall be quoted in Indian Rupees only.**

2.11. Period of Validity of Bids

- a) Bids shall remain valid for the period specified in the BDS after the bid submission deadline date prescribed by the Purchaser. A Bid valid for a shorter period shall be rejected by the Purchaser as nonresponsive.
- b) In exceptional circumstances, prior to the expiration of the bid validity period, the Purchaser may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing. If a Bid Security is requested in accordance with ITB, it shall also be extended 28 days beyond the deadline of the extended bid validity period. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request shall not be required or permitted to modify its Bid.

2.12. Documents Establishing Bidder's Eligibility and Qualifications

- a) Pursuant to ITB Clause 2.9.3, the Bidder shall furnish, as part of its Technical Tender (First Cover) documents establishing the Bidder's eligibility to tender and its qualifications to perform the Contract if its tender is accepted.
- b) The documentary evidence of the Bidder's qualifications to perform the Contract if its tender is accepted, shall establish to the Purchaser's satisfaction: that, in the case of a Bidder offering to supply goods under the contract which the Bidder did not manufacture or otherwise produce, the Bidder has been duly authorized (as per authorization form in Section 7) by the OEMs' Manufacturer or producer to

supply the goods in India. (The item or items for which Manufacturer's Authorization is required should be specified).

[Note: Supplies for any item in each schedule of the tender under "General Shop Outfit" should be from one Original Equipment Manufacturer (OEM) only. Bids from authorised Channel Partners/Agents/Dealers offering supplies from different OEMs for the same item of the schedule in the tender under the "General Shop Outfit" will be treated as non-responsive.].

- c) that the Bidder has the financial, technical, and production capability necessary to perform the Contract and meets the criteria outlined in the Qualification requirements specified in Section 3 and 4 of this bid documents. To this end, all Bids submitted shall include the following information:
- (i) The legal status, place of registration and principal place of business of the company or firm or partnership, etc.
 - (ii) Details of experience and past performance of the Bidder on equipment offered and on those of similar nature within the past three/five years and details of current contracts in hand and other commitments (suggested proforma given in Section 7)

2.13. Documents Establishing Goods' Eligibility and Conformity to Bid Documents

- a) Pursuant to ITB Clause, the Bidder must furnish, as part of its tender, documents establishing the eligibility and conformity to the tender documents of all goods and services which the Bidder proposes to supply under the contract.
- b) The documentary evidence of conformity of the goods and services to the tender documents may be in the form of literature, drawings and data, and shall consist of:
 - (i) a detailed description of the essential technical and performance characteristics of the goods;
 - (ii) a list giving full particulars, including available sources and current prices, of spare parts, special tools, etc., necessary for the proper and continuing functioning of the goods for a period of Three (03) years, following commencement of the use of the Goods by the Purchaser; and
 - (iii) an item-by-item commentary on the Purchaser's Technical Specifications demonstrating substantial responsiveness of the goods and services to those specifications or a statement of deviations and exceptions to the provisions of the Technical Specifications.
- c) For purposes of the commentary to be furnished pursuant to ITB Clause 2.13(iii) above, the Bidder shall note that standards for workmanship, material and equipment, and references to brand names or catalogue numbers designated by the Purchaser in its Technical Specifications are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names and/or catalogue numbers in its tender, provided that it demonstrates to the Purchaser's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.

2.14. Earnest Money Deposit (EMD)/ Bid Security

Bidder may submit Earnest Money Deposit (EMD) in the form of Demand Draft for the value as mentioned in the Bid Data Sheet (BDS) **in favor of “Gujarat Skill Development Society” Payable at Gandhinagar** from any Scheduled Government Bank. EMD should reach physically through speed post/ register post/courier, containing in an envelope, super scribed with subject, tender reference number addressing to the Bid Inviting Officer.

- a) Pursuant to ITB Clause, the Bidder shall furnish, as part of its Bid, the Earnest Money Deposit (EMD) in the amount as specified in BDS of this Bid document.
- b) The EMD is required to protect the Purchaser against the risk of Bidder's conduct which would warrant the security's forfeiture, pursuant to ITB Clause
- c) The earnest money deposit shall be denominated in Indian Rupees and scan copy shall be uploaded along-with Technical Bid in the e-procurement portal n-Procure.
- d) At the Bidder's option, be in the form of either a **certified check, pay order, a demand draft**, and remain **valid for a period of six months beyond the original validity period of tenders**, or beyond any period of extension subsequently requested under ITB Clause
- e) The unsuccessful Bidder's earnest money deposit will be discharged/returned as promptly as possible but **not later than 30 days** after the expiration of the period of tender validity prescribed by the Purchaser, pursuant to ITB Clause
- f) The successful Bidder's earnest money deposit will be discharged upon the Bidder signing the Contract, pursuant to ITB Clause 2.31, and furnishing the performance security
- g) The tender security may be forfeited:
 - (i) if a Bidder (i) withdraws its Bid during the period of Bid validity specified by the Purchaser on the Tender Form except as provided in ITB Clause 2.19; or
 - (ii) in case of a successful Bidder, if the Bidder fails - to sign the Contract in accordance with ITB Clause 2.31; or to furnish performance security in accordance with ITB Clause 2.32.
- h) EMD wherever called for will have to be submitted by the participating bidder in the form and manner specified in the IFB so as to reach the purchaser at the address mentioned in the Bid Data Sheet (BDS) on or before the due date and time mentioned in the IFB. In the case of a bid security, the amount and currency shall be as specified in the BDS.
- i) Unless otherwise specified in the BDS, any bid not accompanied by a substantially compliant bid security or Bid-Securing Declaration, if one is required in accordance with ITB 21.1, shall be rejected by the Purchaser as a nonresponsive Bid.
- j) The bid security or the Bid-Securing Declaration of a Joint Venture shall be in the name of the Joint Venture that submits the bid. The form must include the complete name of the Bidder.

2.15. Period of Validity of Bids

- a) Tenders shall remain valid for **180 days** after the deadline for submission of tenders prescribed by the Purchaser. A tender valid for a **shorter period shall be rejected by the Purchaser as non-responsive**.
- b) In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be

made in writing (or by cable or telex or fax). The earnest money deposit provided under ITB Clause shall also be suitably extended. A Bidder may refuse the request without forfeiting its earnest money deposit. A Bidder granting the request will not be required nor permitted to modify its tender.

2.16. Format and Signing of Tender

- a) The digital signature shall be obtained by the Bidder from the designated companies as given in the e-procurement portal and then get registered on the e-procurement portal. The user ID and password would be assigned by the system. The Bidder shall upload the tender along with all the requisite documents through e-procurement platform by using the user ID and digital signature.
- b) Any interlineations, erasures or overwriting shall be valid only if they are initiated by the person or persons signing the tender.
- c) The Bidders shall furnish information as described in the Form of Tender on commissions or gratuities, if any, paid or to be paid to agents relating to this Tender, and to contract execution if the Bidder is awarded the contract.

2.17. Submission /Uploading of Bids

2.17.1 Uploading of Tenders

- a) The Bidders shall upload the Bids (both Technical and Financial) through e-procurement portal <https://tender.nprocure.com/> Bidders should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document. **The original copy of the Technical Bid with relevant documents and original EMD/Bid Security and Tender Fee (in a separate envelope) should be submitted and/or delivered by post/courier to the Purchaser within five (05) days after the last date of submission.** Please make a Note, **“FINANCIAL BID IN THE PRESCRIBED FORMATS, TO BE SUBMITTED/UPLOADED ONLINE ONLY”**
- b) The Tender Forms and other documents as detailed in **Clause 2.9** shall be addressed to the Purchaser before uploading. Only the originals of the bid security (if it is in the form of DD/CC/BC) and the original affidavit vouching for the correctness of the information furnished and documents uploaded shall be produced or delivered by post/courier to the Purchaser within 5 days after the last date of submission which shall be verified and retained by the Purchaser. The Bidder is solely responsible for ensuring submission of the requisite documents within the stipulated period and the Purchaser shall not be responsible for non-submission(uploading) of requisite documents/information.
- c) Cable or facsimile tenders will be rejected. Tenders submitted by any other means other than through e-procurement portal <https://tender.nprocure.com/> shall be rejected.
- d) The bidder has to select the payment option as “offline” to pay the tender fee/EMD (wherever applicable) as applicable and enter details of the instrument. The bidder should prepare the Tender Fees/EMD (wherever applicable) as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the concerned official, at the latest by the last date of bid submission or as specified in the tender documents. The details of the

DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise, the uploaded bid will be rejected.

- e) Bidders are requested to note that they should submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white colored (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.
- f) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- g) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener's public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- h) The uploaded Bid documents become readable only after the tender opening by the authorized bid openers. Upon the successful and timely submission of bids (i.e. after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- i) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

2.17.2 Deadline for Submission/uploading of Bids.

- a) Tenders must be submitted/uploaded by the Tenderers no later than the time and date specified in the Invitation for Bids (Section I) through the e-procurement platform. The e-procurement platform will not accept the tenders after the stipulated date and time (as per the time of the e-procurement platform).
- b) The Purchaser may, at its discretion, extend this deadline for submission of tenders by **amending the tender documents in accordance with ITB Clause 5**, in which case all rights and obligations of the Purchaser and Tenderers previously subject to the deadline will thereafter be subject to the deadline as extended. The amendment/notification shall be notified in the e-procurement portal.

2.18. Late/Alternate Tenders

Once the Bids are submitted/uploaded, cannot be either modified/alterd by the Tenderers after the deadline for submission/uploading of tenders (as per the e-procurement platform time) prescribed by the Purchaser. Bids cannot be submitted/uploaded beyond the bid submission deadline. However, incase, the Purchaser notified any corrigendum, the Bid submission deadline may extend accordingly and shall be notified

2.19. Modification and withdrawal of Tenders

- a) In the “My bids” Section of the e-procurement the Bidder can view the status of their tenders and decrypt tender (i.e. in cases where the Bidder has chosen to encrypt the tender using his own public key) for modification or withdrawal before the stipulated date and time for submission uploading. The Tenderers may cancel/modify their tender online before the deadline for submission. For modification of tenders, the Bidder need not make any additional payment towards the cost of the tendering process. For tender modification and consequential re-submission, the Bidder is required to cancel his tender submitted earlier (only the financial tender is cancelled. All the uploaded documents would be there). The last modified tender submitted by the Bidder within the tender submission time shall be considered as the tender. For this purpose, modifications/withdrawal by other means will not be accepted. In the online system of tender submission modification/cancellation is allowed any number of times. The Tenderers may cancel their bids by clicking on the cancel button in the My Bids section before the deadline submission of tenders. However, if the tender is cancelled and not resubmitted within the stipulated time on the last date of submission of tenders, it would be deemed withdrawn.
- b) No tender may be modified subsequent to the deadline for submission of tenders.
- c) Withdrawal or modification of a tender between the deadline for submission of tenders and the expiration of the period of tender validity specified by the Bidder on the Tender Form or as extended in the e-procurement system. If a Bidder does the same through any other medium, then it may result in the Bidder's forfeiture of its earnest money deposit, pursuant to ITB Clause 2.16

2.20. Instructions for online bid submission

- a) The bidders are required to submit soft copies of their bids electronically on the n-Procure Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal. More information useful for submitting online bids on the CPP Portal may be obtained at: e-procurement portal <https://tender.nprocure.com/>
- b) **Registration:** Bidders are required to enrol on the e-Procurement module of the Public Procurement Portal e-procurement portal <https://tender.nprocure.com/> by clicking on the link “Online bidder Enrollment” on the CPP Portal which is free of charge. As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- c) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.

- d) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify/nCode/eMudhra etc.), with their profile.
- e) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- f) Bidder then logs in to the site through the secured log-in by entering their user ID/ password and the password of the DSC / e-Token.

2.21. Tender Opening and Evaluation of Tenders

The decryption of the bid would be done as specified schedule mentioned in the tender document on the e-procurement portal <https://tender.nprocure.com/> , unless otherwise postponed. In the event of the specified date of Bid Opening being declared a holiday for the Purchaser, the Bids shall be opened at the appointed time and location on the next working day.

- Part-I First Covers (Technical Bids) of the bid will be opened at the first stage on the due date and time indicated for opening in this IFB. All the bidders who have submitted bids within the due date and time specified for its submission can view the list of bidders who have participated in the tender online after opening of the tender.
- Part-II Second Cover s (Financial Bids) of the bid can be viewed online only by those bidders whose Part-I of the bid is found to be technically acceptable to the Purchaser and intimation thereof has been given by the Purchaser.
- The Purchaser will form a committee which will evaluate the Bids submitted by the bidders for detailed scrutiny. During evaluation of proposals, Purchaser, may, at its discretion, ask the bidders for clarification of their Proposals. The Pre-qualification Bids will be evaluated first to ascertain the eligibility of the Bidders.

1. Opening of First Covers (Technical Bids) by the Purchaser

- a) The Committee constituted by the Purchaser will open/unlock all technical Bids, **uploaded through e-procurement platform and/or next working day, (within five days of online submission/upload) of bids received in hard copies** in the presence of Bidders' representatives who choose to attend, **as per schedule of tender** and in the following location,

**Office of the
M.D. Gujarat Skill Development Mission,
3rd Floor, Block No. 2,
Dr. Jivraj Mehta Bhavan,
Gandhinagar - 382010, GUJARAT (India).**

The Bidders' representatives who are present shall sign a register evidencing their attendance. In the event of the specified date of Tender opening being declared a holiday for the Purchaser, the Bids shall be opened at the appointed time and location on the next working day.

- b) The Bidders' names, the sufficiency or otherwise of the earnest money deposit, the tender prices, and such other details as the Purchaser, at it's discretion, may

consider appropriate, will be announced at the opening. **No Bids, other than submitted without bid security/EMD, shall not be rejected at tender opening.**

- c) The Purchaser will prepare minutes of the tender opening and post on the e-procurement portal or it's Website.

2.22. Clarification of Tenders (Technical tender)

During evaluation of technical Bids, the Purchaser may, at its discretion, ask the Bidder for a clarification of its Bid. The request for clarification and the response shall be in writing and **no change in the substance of the tender shall be sought, offered or permitted.**

2.23. Preliminary Examination of Technical Bids

- a) The Purchaser will examine the technical tenders to confirm that all documents and technical documentation requested have been provided and determine whether they are complete, and whether the tenders are generally in order.
- b) The Purchaser shall confirm that the following documents and information have been provided in the tender. If any of these documents or information is missing, the offer shall be rejected, and the earnest money deposit may be forfeited.
 - (i) Technical Tender submission Forms.
 - (ii) Earnest money deposit: Where the Bidder has quoted for more than one schedule, /item if the earnest money deposit furnished is inadequate for all the schedules/items, the Purchaser shall take the price tender into account only to the extent the tender is secured. For this purpose, the extent to which the tender is secured shall be determined by evaluating the requirement of earnest money deposit to be furnished for the schedule/item included in the tender (offer) in the serial order of the Schedule of Requirements of the Tender document.
 - (iii) Authorization from the Manufacturer that the Bidder is an authorized Agent/Authorized Channel partner in the Format as per **Section 7**.
- c) The Purchaser may waive any minor informality or non-conformity or irregularity in a tender which does not constitute a material deviation, provided such a waiver does not prejudice or affect the relative ranking of any Bidder.
- d) Prior to the detailed evaluation, pursuant to ITB Clauses, the Purchaser will determine the substantial responsiveness of each Bid to the Bid documents. For the purposes of these Clauses, a substantially responsive tender is one which conforms to all the terms and conditions of the tender documents without material deviations. Deviations from or objections or reservations to critical provisions such as those concerning validity of Bid, **Performance Security (GCC Clause 4.18). Warranty (GCC Clause 4.28), Force Majeure (GCC Clause 4.31), Applicable law (GCC Clause 4.9/Clause 4.10), and Taxes & Duties (GCC Clause 4.17)** will be deemed to be a material deviation. The Purchaser's determination of a Bidder's responsiveness is to be based on the contents of the tender itself without recourse to extrinsic evidence.

- e) If a Bidder is not substantially responsive, it will be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

2.24. Evaluation and Comparison of Technical Bids

- (a) **Evaluation of First Cover (Technical Tenders):** The Purchaser will evaluate and determine whether each tender (i) meets the eligibility criteria defined in ITB **Clause 2.4.1**; (ii) is accompanied by the required **Tender Fee and Earnest Money Deposit(EMD)** as per stipulations of **Clause 2.14**; (iii) is valid as required in ITB **Clause 2.14** ; and (iv) meets the **pre-qualification criteria** stipulated in **Clause 2.4.2** and is qualified to perform the contract satisfactorily. The determination will take into account the Bidder's technical, financial and production capabilities. It will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted/uploaded by the Bidder pursuant to **ITB Clause 2.9.2 and Clause 2.9.3** and **Clause 2.13** as well as such other information as the Purchaser deems necessary and appropriate.
- (b) The Purchaser will draw out a list of responsive and technically qualified Bidders who can perform the contract satisfactorily and place the same on the e-procurement platform for information of the tenderers.
- (c) The **Technical Bid Evaluation Report (TBER)** shall be prepared considering the following tabulated Technical Qualification Criteria (TQC) and each bidder will be scored.

Sr. No.	Parameter	Criteria	Document Required	Max Marks
1	Financial Turnover	The minimum financial Turnover of the OEM in any three (3) out of last five (5) financial years starting from FY 2018-19, 2019-20, 2020-21, 2021-22 and 2022-23 should be more than 100 Crore. A. Between 100 and 199 Crore – (20 marks) B. Between 200 and 499 Crore – (25 marks) C. More than 500 Crore – (30 marks)	– CA certified and audited statement for any three of last five audited Financial Year starting from 2018-19, 2019-20, 2020-21, 2021-22 and 2022-23 of OEM.	30
2	Contractual Experience	Minimum contractual experience of successful completion of single/multiple equipment supplies contract/work order in Fitter and allied Trade , in one of the financial years in last five years starting from FY: 2018-19, 2019-2020, 2020-2021, 2021-2022 and 2022-23 A. If single work order of 4.0 to 8.0 Cr (20 Marks)	– Copy of Purchase Order/Work Order with Completion Letter/Certificate or any other verifiable documents issued by the	30

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Sr. No.	Parameter	Criteria	Document Required	Max Marks
		<p>B. If single work order, between 8.0 to 10.0 Cr (25 Marks)</p> <p>C. If single work order of more than 10 Cr (30 Marks)</p>	client in the name of either of the consortium partners and/or lead partner.	
3	Past Performance	<p>The Bidder must furnish the information of all past supplies of all equipment listed under the category of “General Shop Outfit” (GSOF) in last three (03) years.</p> <p>A. If the set of equipment supplied by bidder/OEM is at least 50% of items listed under GSOF – (15 marks).</p> <p>B. If the set of equipment supplied by bidder/OEM is at least 70% of items listed under GSOF – (18 marks).</p> <p>C. If set of equipment supplied by bidder/OEM is at least 100% of items listed under GSOF – (20 marks).</p>	<p>– Relevant Work order copy</p> <p>– Client satisfactory letter regarding successful implementation and satisfactory Performance.</p> <p>– Contact detail – address, email id and contact Number with</p>	20
4	Training and Services	<p>As the Purchaser aims to establish international standard Institutes for Training of Trainers (IToT) in Fitter Trade, will be equipped with latest and high-end equipment, and onsite training will be provided post installation & commissioning on these equipment, hence, it is important that the bidders need to furnish details of authorized, and duly certified Trainers/ Installation & Commissioning Engineers, on pay role of the OEM, to ensure trainings conducted without damaging both man and machines.</p> <p>A. If documentary evidence provided for 2 to 5 certified Trainers (15 Marks)</p> <p>B. If documentary evidence provided for 6 and more certified Trainers (20 Marks)</p>	<p>– Undertaking Letter upon Confirmation on OEM Letterhead. Profile of such qualified and certified Trainers/Installation & Commissioning Engineers</p>	20
Total				100

MINIMUM QUALIFICATION – 70 MARKS, LESS THEN THIS WILL BE CONSIDERED AS TECHNICALLY DISQUALIFIED.

2.25. Opening of Financial Bids

- a) The Purchaser will inform all the Technically qualified and responsive tenders through e-procurement portal of the date and time of opening of the Second Covers (Financial Tenders) of the qualified Tenderers. After the notified time and date of opening/unlocking of the second covers (Financial Tender) could be viewed automatically by the respective technically qualified tenderers. In this regard no separate intimation shall be made by the Purchaser.
- b) **Clarification of Bids** - During evaluation of financial tenders, the Purchaser may, at its discretion, ask the Bidder for a clarification of its tender. The request for clarification and the response shall be in writing and no change in substance or price of the tender shall be sought, offered or permitted.
- c) **Preliminary Examination:** The Purchaser will examine whether the financial tender is complete, whether it has been properly signed and whether the tender are generally in order.
- d) The Purchaser may waive any minor informality or non-conformity or irregularity in a tender which does not constitute a material deviation, provided such a waiver does not prejudice or affect the relative ranking of any Bidder.

2.26. Evaluation and Comparison of Bids (Financial Bids)

- (a) The Purchaser will evaluate the tenders which have been determined to be substantially responsive, pursuant to ITB Clause 20 for each schedule/item separately. No tender will be considered if the complete requirements covered in the schedule/item are not included in the tender
- (b) The Purchaser's evaluation of a tender will take into account, in addition to the tender price (Ex-factory/ex-warehouse/off-the-shelf price of the goods offered from within India, such price to include all costs as well as duties payable on components and raw material incorporated or to be incorporated in the goods, and Excise duty on the finished goods, if payable) and price of incidental services, the following factors, in the manner and to the extent indicated in ITB Clause and in the Technical Specifications:
 - (i) cost of inland transportation, insurance and other costs within India incidental to the delivery of the goods to their final destination.
 - (ii) delivery schedule offered in the tender.
 - (iii) deviations in payment schedule from that specified in the Special Conditions of Contract.
 - (iv) the availability in India of spare parts and after-sales services for the goods / equipment offered in the tender.
 - (v) **Cost of Two Years (o2) Comprehensive Maintenance Contract (CMC) Services after Three (03) years of warranty period.**

Pursuant to above Clause one or more of the following evaluation methods will be applied while preparing the **Financial Bid Evaluation Report (FBER)**:

- a) **Inland Transportation, Insurance and Incidentals:** (i) Inland transportation, insurance and other incidentals for delivery of goods to the final destination as stated in ITB Clause 9.2 (iii). The above costs will be added to the tender price.
- b) **Delivery Schedule:** (i) The Purchaser requires that the goods under the Invitation for Tenders should be delivered at the time specified in the Schedule of Requirements. The estimated time of arrival of the goods at the project site should

be calculated for each tender after allowing for reasonable transportation time. Treating the date as per schedule of requirements as the base, a delivery "adjustment" will be calculated for other tenders **at 2% of the ex-factory price including excise duty for each week of delay** beyond the base and this will be added to the tender price for evaluation. No credit will be given to earlier deliveries and tenders offering delivery **beyond SIX (06) months** of the stipulated delivery period will be treated as unresponsive.

- c) **Deviation in Payment Schedule:** The Special Conditions of Contract stipulate the payment schedule offered by the Purchaser. If a tender deviates from the schedule and if such deviation is considered acceptable to the Purchaser, the tender will be evaluated by calculating interest earned for any earlier payments involved in the terms outlined in the tender as compared to those stipulated in this invitation, at a rate of 2 % percent per annum.
- d) **Spare Parts and After Sales Service Facilities in India:** The cost to the Purchaser of establishing the minimum service facilities and parts inventories, as outlined elsewhere in the tender documents, if quoted separately, shall be added to the tender price.
- e) **Cost of Comprehensive Maintenance Services** for the stipulated period after the stipulated warranty period. - The cost of CMC charges for the stipulated period after the stipulated warranty period shall be added to the tender price of the equipment

2.27. Contacting the Purchaser

- a) Subject to ITB Clauses, no Bidders shall contact the Purchaser on any matter relating to its tender, from the time of the tender opening to the time the Contract is awarded. If the Bidder wishes to bring additional information to the notice of the purchaser, it should do so in writing.
- b) Any effort by a Bidder to influence the Purchaser in its decisions on tender evaluation, tender comparison or contract award may result in rejection of the Bidder's tender.

2.28. Award of Contract

Subject to ITB Clause, the Purchaser will award the Contract to the successful Bidder whose tender has been determined to be substantially responsive and has been determined as the lowest evaluated tender, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.

2.29. Purchaser's right to vary Quantities at Time of Award

The Purchaser reserves the right at the time of Contract award to increase or decrease by up to **Ten (10) percent of the quantity of goods** and services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions.

2.30. Purchaser's Right to Accept or Reject any or all Bidders.

The Purchaser reserves the right to accept or reject any tender, and to annul the tendering process and reject all tenders at any time prior to contract award, without thereby incurring any liability to the affected Bidder or Tenderers.

2.31. Notification of Award

- a) Prior to the expiration of the period of tender validity, the Purchaser will notify the successful Bidder in writing by registered letter or by cable/telex or fax, to be confirmed in writing by registered letter, that its tender has been accepted.
- b) The notification of award will constitute the formation of the Contract.
- c) Upon the successful Bidder's furnishing of performance security pursuant to ITB Clause, the Purchaser will promptly notify the name of the winning Bidder to each unsuccessful Bidder and will discharge its earnest money deposit.
- d) If, after notification of award, a Bidder wishes to ascertain the grounds on which its tender was not selected, it should address its request to the Purchaser. The Purchaser will promptly respond in writing to the unsuccessful Bidder.

2.32. Signing of Contract

- a) At the same time as the Purchaser notifies the successful Bidder that its tender has been accepted, the Purchaser will send the Bidder the Contract Form provided in the tender documents, incorporating all agreements between the parties.
- b) Within 21 days of receipt of the Contract Form, the successful Bidder shall sign and date the Contract and return it to the Purchaser.

2.33. Performance Security

- a) Within **21 days** of the receipt of notification of award from the Purchaser, the successful Bidder shall furnish the performance security in accordance with the Conditions of Contract, in the Performance Security Form provided in the tender documents or in another form acceptable to the Purchaser.
- b) Failure of the successful Bidder to comply with the requirement of ITB Clause 27.2 or ITB Clause 28.1 shall constitute sufficient grounds for the annulment of the award and forfeiture of the earnest money deposit, in which event the Purchaser may make the award to the next lowest evaluated Bidder or call for new tenders.

2.34. Corrupt or Fraudulent Practices

The Purchaser requires that Bidders/ Suppliers/ Contractors observe the highest standard of ethics during the procurement and execution of Government financed contracts. In pursuance of this policy, the Purchaser:

- a) defines, for the purposes of this provision, the terms set forth as follows:
“Corrupt practice” means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution; and
“Fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Government, and includes collusive practice among Tenderers (prior to or after tender submission) designed to establish tender prices at artificial non-competitive levels and to deprive the Government of the benefits of free and open competition;
- b) will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;

- c) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a Government financed contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a Government-financed contract. Furthermore, Bidders shall be aware of the provision stated in Clause of the General Conditions of Contract.

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2.35. Bid Data Sheet (BDS)

ITB 2.1	General		
ITB 2.1	The Purchaser is: The Gujarat Skill Development Mission (GSDM), Department of LSD&ED, Government of Gujarat, India		
ITB 2.2	The name of the Project is: Gujarat Apex Training Institute (GATI)		
ITB 2.3	The Title of the National Competitive Bidding (NCB) is: Invites for e-Bids from Original Equipment Manufacturers (OEMs) and/or authorised Channel Partners (CPs) Supply of Tools and Equipment and allied Works/Services for an International Standard IToT in Fitter Trade at ITI Tarsali, Gujarat, India		
	The number and identification of Package comprising this NCB through n-Procure is GSDM/GATI/IToT (08)-2023/09		
	Package 1: Fitter Trade, IToT Tarsali, Gujarat, India		
	#	Package No	Scope of Supply of Goods and allied Works
	1	PKG 1	Supply of set of Tools and Equipment as per the scope of supply and technical specification as given in Section 6, Clause 6.2 of this bid document, for an international standard IToT for Fitter Trade includes General Shop Outfit, CITS++ Trainees Tool Kit + PPEs, OSTE, PPE, MISC, CON, IT and ITeS equipment, Consumables and Spares, and allied Works/Services
ITB 1.1	Interested and/or eligible Original Equipment Manufacturers (OEMs) and/or Authorised Channel Partner (CP)/Dealers must be meet Pre-Qualification Criteria Clause 2.4.1 under Section-1 of this Bid document.		
ITB 2.4 ITB 2.4.1.	Eligible Bidder/Tenderers – should qualify criteria indicated ITB 2.4 and 2.4.1 and 2.4.2		
ITB 2.6	Contents of Bidding Document		

<p>ITB 2.7</p>	<p>For clarification purposes only, the Purchaser's address is: Attention: The M.D., Gujarat Skill Development Mission, 3rd Floor, Block No. 2, Dr. Jivraj Mehta Bhavan, Gandhinagar - 382010, GUJARAT (India) Phone: 91-8160304501 Email: to-gsdm-gnr@gujarat.gov.in</p> <p>All the request for clarification in writing should reach before or on <u>date and time as per Schedule of Tender</u>. A pre-bid meeting shall be held on <u>date and time as per Schedule of Tender</u> in the following location/Venue: Meeting room, 3rd Floor, Block No. 2, Dr. Jivraj Mehta Bhavan, Gandhinagar - 382010, GUJARAT (India)</p>
<p>ITB 2.8</p>	<p>Amendments other than issued addendum in the Bid Document not considered for evaluation. The Purchaser may amend the Bidding Document by issuing addenda.</p>
<p>ITB 2.9</p>	<p>Preparation of Bids</p>
<p>ITB 2.9.1</p>	<p>The language of the Bid is: <u>English</u> The tender prepared by the Tenderer, as well as all correspondence and documents relating to the tender exchanged by the Tenderer and the Purchaser, shall be written in English language. Supporting documents and printed literature furnished by the Tenderer may be in another language provided they are accompanied by an accurate translation of the relevant passages in the English language in which case, for purposes of interpretation of the Tender, the translation shall govern</p>
<p>ITB 2.9.2 ITB 2.9.3</p>	<p>Technical Bid Compliance report (format at Annexure-A) to be filled in by the tenderer and submitted all necessary documentary evidence. Technical Submission Form duly completed and signed by the Bidders. Earnest money deposit (EMD) and tender processing fee furnished in accordance with ITB Clauses. Documentary evidence established in accordance with ITB Clause that the Bidder is eligible to Bid and is qualified to perform the contract if its tender is accepted; Documentary evidence established in accordance with ITB Clause that the goods and ancillary services to be supplied by the Tenderer are eligible goods and services and conform to the tender documents; and VAT registration and filing of VAT returns for the last three financial years (i.e. from 2019-20 to 2022-23). Equipment and Quality controls employed by the Manufacturer of the equipment as per proforma given in Section 7;</p>

	Annual Average Turn-Over (AATO) of any three of five financial years starting from FY: 2018-19 to 2022-23, duly certified by a Chartered Accountant; Notarized self-declaration stating that the Tenderer is not blacklisted with any Government/Quasi-Governmental Organization in India and will not supply refurbished equipment; Any other document/information required to be completed and submitted in accordance with the provisions of the tender document to support the capacity of the Tenderer to perform the contract satisfactorily. The Bidder shall upload in the e-procurement portal https://tender.nprocure.com/ and submit one set of original hard copies with its Technical Bid, Tender Fee and EMD in a sealed envelope within five (05) days after online bid submission/upload deadline the following additional documents: 1) <u>Printed catalogues, with detail technical information of the offered goods/equipment.</u>
ITB 2.9.4	The units and rates in figures entered into the Price Schedules should be typewritten, must be in print form. Price Schedules not presented accordingly may be considered nonresponsive.
ITB 2.18	Alternative and Late submission of Bids shall not be permitted, unless otherwise the Purchaser has not released any addenda and extended Bid submission date.
ITB 2.10	In addition to the above, the Bidder shall quote prices for Goods offered from outside the Purchaser's country using the current Incoterms: Free Carrier <u>FCA</u>
ITB 2.10	The prices quoted by the Bidder shall be: Fixed
ITB 2.4.1	Bidder shall furnish all the documentary evidence as define in the Pre-Qualification Criteria, which establishes Qualification for perform the Contract.
ITB 2.12	The Bidders shall include Manufacturer's Authorization Certificate for all such Items listed under " General Shop Outfit category ". However, in case of items not classifiable as either off-the-shelf or high value such as regular equipment or computers that may require confirmation of available warranties, etc., the Bidder required to submit documentation to substantiate that it is an authorized dealer, distributor, or reseller of the goods being procured.
ITB 2.9.2	The Bidder is required to furnish information/ Documentary evidence that it will be represented by a Channel Partner in the Purchaser's country.
ITB 2.15	The bid validity period shall be 180 days .

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ITB 2.14	The Bidder shall furnish a EMD - Earnest Money Deposit in the amount of ₹ 36,41,370 /- (@ 3 % of the estimated Package cost) and Tender Fee of ₹ 15,000/-
ITB 2.23	Any bid not accompanied by an irrevocable and callable bid security shall be rejected by the Purchaser as nonresponsive. However, if a bidder submits a bid security that deviates in form, amount and/or period of validity, the Purchaser shall request the Bidder to submit a compliant bid security within 14 days of receiving such a request. Failure to provide a compliant bid security within the prescribed period of receiving such a request shall cause the rejection of the bid.
ITB 2.17	The Bidder shall prepare one original set of the Technical Bid and EMD as described in ITB 11 and clearly mark each “ORIGINAL - TECHNICAL BID” In addition, the Bidder shall upload Scan copies of the Technical Bid and EMD, on n-Procure Portal in the event of any discrepancy between the original and the uploaded scan copies, the uploaded scan copies shall prevail. The original hard/physical copy with Tender Fee and EMD should reach the following address within five days of last date of bid submission/upload. The M.D., Gujarat Skill Development Mission, 3rd Floor, Block No. 2, Dr. Jivraj Mehta Bhavan, Gandhinagar - 382010, GUJARAT (India) Phone: 91-8160304501 Email: to-gsdm-gnr@gujarat.gov.in
ITB 2.12	An organizational document, board resolution or its equivalent, or power of attorney specifying the representative's authority to sign the Bid on behalf of, and ITB to legally bind, the Bidder. If the Bidder is an intended or an existing joint venture, the power of attorney should be signed by all partners and specify the authority of the named representative of the joint venture to sign on behalf of, and legally bind, the intended or existing joint venture. If the joint venture has not yet been formed, also include evidence from all proposed joint venture partners of their intent to enter into a joint venture in the event of a contract award in accordance with ITB
ITB 2.31	The Bidder shall submit an acceptable authorization within 14 days .
2.17	Submission and Opening of Bids
ITB 2.17	The Bid prepared by the Bidder shall comprise of the following documents: (a) Bid Security/EMD and Bid Processing Fee (if any): The Bidder shall furnish, as part of the Bid, a Bid security/EMD for the amount as mentioned in the ITB/BDS in the form of Demand Draft OR in the

	<p>form of an unconditional Bank Guarantee (which should be valid for Six (06) months from the last date of bid submission) of any Nationalized Bank including the public sector bank or Private Sector Banks or Commercial Banks or Co-Operative Banks and Rural Banks (operating in India having branch at Gandhinagar) as per prescribed format and must be submitted along with the covering letter. Also submit Pre-qualification Bid in support of eligibility, a bidder must submit the following documents: Pre-qualification Bid Letter, General information about the Bidder, detailed checklist for Eligibility dully filled in along with the supporting documents as defined, declaration that the bidder has not been blacklisted by any Ministry of Government of India or by Government of any State in India or by Government of Gujarat or any of the Government PSUs as per Format, declaration regarding Blacklisting, undertaking by the bidder for acceptance to the Terms & Conditions mentioned in this Tender, Average Annual Turn-Over as per eligibility criteria, Experience of projects of prescribed as per Eligibility Criteria and Completion of Projects of Prescribed Nature and Size. In addition to the Bid uploaded on the n-Procure portal, the Bidders are required to submit one Original hard Copy of Technical Bidding Document along with Tender Fee and EMD as per the format attached super subscribe as Envelope 1 – Technical Bid, and Envelope 2 – EMD, all two Envelope must be in Single Cover should reach within five days of last date of bid submission/upload at the following address before due Date, and Time.</p> <p>The M.D., Gujarat Skill Development Mission, 3rd Floor, Block No. 2, Dr. Jivraj Mehta Bhavan, Gandhinagar - 382010, GUJARAT (India)</p>
ITB 2.1 ITB 2.20	<p>The identification of this bidding process is: <u>As mentioned in ITB 1.1</u></p>
ITB 2.1 ITB 2.17	<p>For bid submission (One set of Original Hard Copies in a sealed cover) purposes only, the Purchaser's address is:</p> <p>Attention: The M.D., Gujarat Skill Development Mission, 3rd Floor, Block No. 2, Dr. Jivraj Mehta Bhavan, Gandhinagar - 382010, GUJARAT (India) Phone: 91-8160304501 Email: to-gsdm-gnr@gujarat.gov.in</p>
ITB 2.17	<p>The deadline for bid submission is: Date: <u>as per Schedule of Tender</u></p>

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	The Deadline for Submission of Hard Copies of Technical Bid and EMD/Bid Security: Date: as per Schedule of Tender
ITB 2.21.1	The Technical bid opening shall take place at: The M.D., Gujarat Skill Development Mission, 3rd Floor, Block No. 2, Dr. Jivraj Mehta Bhavan, Gandhinagar - 382010, GUJARAT (India) Phone: 91-8160304501 Email: to-gsdm-gnr@gujarat.gov.in Date: as per Schedule of Tender
ITB 2.21	E. Evaluation and Comparison of Bids
ITB 2.23	The Purchaser shall examine the Technical Bid to confirm that all documents and technical documentation requested in ITB have been provided, and to determine the completeness of each document submitted
ITB 2.24	The Purchaser shall confirm that the following documents and information have been provided in the Technical Bid. If any of these documents or information is missing, the offer shall be rejected: <ul style="list-style-type: none"> ▪ Technical Bid Submission Sheet ▪ written confirmation of authorization to commit the Bidder; ▪ Tender Fee ▪ bid security/EMD or Bid-Securing Declaration, and ▪ Manufacturer's Authorization Certificate
ITB 2.24(b)	Responsiveness of Technical Bid - The Purchaser's determination of a Technical Bid's responsiveness is to be based on the contents of the Technical Bid itself, as defined in ITB
ITB 2.24(c)	Examine Technical Bid in particular, to confirm that all requirements of Schedule of Supply have been met without any material deviation, reservation, or omission.
ITB 2.28	Award of Contract
ITB 2.28 ITB 2.31	The Variation in Quantities of the Items / Equipment The maximum percentage by which quantities may be increased or decreased is: 10%

Section 3: General Conditions of Contract (GCC)

3.1. Definitions

In this Contract, the following terms shall be interpreted as indicated:

- **"The Contract"** means the agreement entered into between the Purchaser and the Supplier, as recorded in the Contract Form signed by the parties, including all the attachments and appendices thereto and all documents incorporated by reference therein;
- **"The Contract Price"** means the price payable to the Supplier under the Contract for the full and proper performance of its contractual obligations.
- **"The Goods"** means all the tools, equipment, machinery, and/or other materials which the Supplier is required to supply to the Purchaser under the Contract;
- **"Services"** means services ancillary to the supply of the Goods, such as transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training and other obligations of the Supplier covered under the Contract;
- **"GCC"** means the General Conditions of Contract contained in this section.
- **"SCC"** means the Special Conditions of Contract.
- **"The Purchaser"** means the organization purchasing the Goods, as named in SCC.
- **"The Purchaser's country"** is the country named in SCC.
- **"The Supplier"** means the individual or firm supplying the Goods and Services under this Contract.
- **"The Government"** means the Government of Gujarat State.
- **"The Project Site"**, where applicable, means the place or places named in SCC.
- **"Day"** means calendar day.

3.2. Application

These General Conditions shall apply to the extent that they are not superseded by provisions in other parts of the Contract.

3.3. Standards

The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications, and, when no applicable standard is mentioned, to the authoritative standard appropriate to the Goods' country of origin and such standards shall be the latest issued by the concerned institution.

3.4. Use of Contract Documents and Information; Inspection and Audit by the Government

- 3.4.1. The Supplier shall not, without the Purchaser's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.

- 3.4.2. The Supplier shall not, without the Purchaser's prior written consent, make use of any document or information enumerated in GCC Clause 4.1 except for purposes of performing the Contract.
- 3.4.3. Any document, other than the Contract itself, enumerated in GCC Clause 4.1 shall remain the property of the Purchaser and shall be returned (in all copies) to the Purchaser on completion of the Supplier's performance under the Contract if so, required by the Purchaser.
- 3.4.4. The supplier shall permit the Government to inspect the Supplier's accounts and records relating to the performance of the Supplier and to have them audited by auditors appointed by the Government, if so, required by the Government.

3.5. Patent Rights

- 3.5.1. The Supplier shall indemnify the Purchaser against all third-party claims of infringement of patent, trademark or industrial design rights arising from use of the Goods or any part thereof in India.

3.6. Performance Security

- 3.6.1. Within 21 days of receipt of the notification of contract award, the Supplier shall furnish Performance Security to the Purchaser for an amount of **5% of the Contract Value**, valid up to 60 days after the date of completion of performance obligations including Warranty obligations. In the event of any correction of defects or replacement of defective material during the Warranty period, the Warranty for the corrected/replaced material shall be extended to a further period of 12 months and the Performance Through e-procurement portal for proportionate value shall be extended 60 days over and above the initial Warranty period.
- 3.6.2. The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
- 3.6.3. The Performance Security shall be denominated in Indian Rupees and shall be in one of the following forms:
- A Through e-procurement portal or irrevocable Letter of Credit, issued by a Nationalized/Scheduled bank in the form provided in the tender documents or another form acceptable to the Purchaser; or
 - A cashier's check or Banker's certified check, or crossed demand draft or pay order drawn in favour of the Purchaser; or
 - Specified small savings instruments pledged to the Purchaser.
- 3.6.4. The Performance Security will be discharged by the Purchaser and returned to the Supplier not later than 60 days following the date of completion of the Supplier's performance obligations, including any Warranty and CMC obligations, under the Contract.
- 3.6.5. In the event of any contract amendment, the Supplier shall, within 20 days of receipt of such amendment, furnish the amendment to the Performance Security, rendering the same valid for the duration of the Contract as amended for 60 days after the completion of performance obligations including Warranty and CMC obligations.

3.7. Inspections and Tests

- 3.7.1. The Purchaser or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no extra cost to the Purchaser. SCC and the Technical Specifications shall specify what inspections and tests the Purchaser requires and where they are to be conducted. The Purchaser shall notify the Supplier in writing in a timely manner of the identity of any representatives retained for these purposes.
- 3.7.2. The inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s), at point of delivery and/or at the Goods final destination. If conducted on the premises of the Supplier or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data - shall be furnished to the inspectors at no charge to the Purchaser.
- 3.7.3. Should any inspected or tested Goods fail to conform to the specifications, the Purchaser may reject the goods and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Purchaser.
- 3.7.4. The Purchaser's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival at Project Site shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by the Purchaser or its representative prior to the Goods shipment.
- 3.7.5. Nothing in GCC Clause 7 shall in any way release the Supplier from any warranty or other obligations under this Contract.
- 3.7.6. Manuals and Drawings.
 - a) Before the goods and equipment are taken over by the Purchaser, the Supplier shall supply operation and maintenance manuals together with drawings of the goods and equipment. These shall be in such detail as will enable the Purchaser to operate, maintain, adjust and repair all parts of the equipment as stated in the specifications.
 - b) The manuals and drawings shall be in the ruling language (English) and in such form and numbers as stated in the contract.
 - c) Unless and otherwise agreed, the goods and equipment shall not be considered to be completed for the purpose of taking over until such manuals and drawings have been supplied to the Purchaser.

3.8. Packing

- 3.8.1. The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.
- 3.8.2. The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be provided for in the Contract including additional requirements, if any, specified in SCC and in any subsequent instructions ordered by the Purchaser.

3.8.3. Packing Instructions: The Supplier will be required to make separate packages for each Consignee. Each Package will be marked on three sides with proper paint/indelible ink the following:

- i. Project,
- ii. Contract No.,
- iii. Suppliers Name, and
- iv. Packing List Reference number.

3.9. Delivery and Documents

Delivery of the Goods shall be made by the Supplier in accordance with the terms specified by the Purchaser in the Notification of Award. The details of shipping and/or other documents to be furnished by the supplier are specified in SCC.

3.10. Insurance

The Goods supplied under the Contract shall be fully insured in Indian Rupees against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery. For delivery of goods at site, the insurance shall be obtained by the Supplier in an **amount equal to 110% of the value of the goods** from “warehouse to warehouse” (final destinations) on “All Risks” basis including War risks and Strikes.

3.11. Transportation

Where the Supplier is required under the Contract to transport the Goods to a specified place of destination within India defined as Project site, transport to such place of destination in India including insurance, as shall be specified in the Contract, shall be arranged by the Supplier, and the related cost shall be included in the Contract Price

3.12. Incidental Services

3.12.1. The supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:

- a) performance or supervision of the on-site assembly and/or start-up of the supplied Goods;
- b) furnishing of tools required for assembly and/or maintenance of the supplied Goods;
- c) furnishing of detailed operations and maintenance manual for each appropriate unit of supplied Goods;
- d) performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and
- e) training of the Purchaser's personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance and/or repair of the supplied Goods.

3.12.2. Prices charged by the Supplier for incidental services, if not included in the Contract Price for the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.

3.13. Spare Parts

- 3.13.1. As specified in the SCC, the Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:
- such spare parts as the Purchaser may elect to purchase from the Supplier, providing that this election shall not relieve the Supplier of any warranty obligations under the Contract; and
 - In the event of termination of production of the spare parts:
 - advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and
 - following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if requested.
- 3.13.2. The Supplier shall carry sufficient inventories to ensure ex-stock supply of consumable spares for the Goods, such as gaskets, plugs, washers, belts etc. Other spare parts and components shall be supplied as promptly as possible but, in any case, within 3 months of placement of order.

3.14. Warranty

- 3.14.1. The Supplier warrants that the Goods supplied under this Contract are new, unused, of the most recent or current models and that they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Supplier further warrants that all Goods supplied under this Contract shall have no defect arising from design, materials or workmanship (except when the design and/or material is required by the Purchaser's Specifications) or from any act or omission of the Supplier, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination.
- 3.14.2. This warranty shall **remain valid for 12 months** after the Goods or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the Contract, or for 15 months after the date of shipment from the place of loading whichever period concludes earlier. The Supplier shall, in addition, comply with the performance and/or consumption guarantees for a **period of Two (02) years**, thereafter **CMC for another 24 months after completion of 36 months (12-months standard and 24-months extended) warranty period** as specified under the Contract. If for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier shall at its discretion either:
- make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance tests in accordance with SCC Clause 2; OR
 - pay liquidated damages to the Purchaser with respect to the failure to meet the contractual guarantees. The rate of these liquidated damages shall be as specified in the Technical Specifications.
- 3.14.3. The Purchaser shall promptly notify the Supplier in writing of any claims arising under this warranty.
- 3.14.4. Upon receipt of such notice, the Supplier shall, within the period of Three days and with all reasonable speed, repair or replace the defective Goods or parts

thereof, free of cost at the ultimate destination. The Supplier shall take over the replaced parts/goods at the time of their replacement. No claim whatsoever, shall lie on the Purchaser for the replaced parts/goods thereafter. In the event of any correction of defects or replacement of defective material during the Warranty period, the Warranty for the corrected or replaced material shall be extended for a further period of 12 months.

- 3.14.5. If the Supplier, having been notified, fails to remedy the defect(s) within Three days, the Purchaser may proceed to take such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

3.15. Payment

- 3.14.1. The method and conditions of payment to be made to the Supplier under this Contract shall be specified in the SCC.
- 3.14.2. The Supplier's request(s) for payment shall be made to the Purchaser in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and the Services performed, and by documents, submitted pursuant to GCC Clause 9, and upon fulfillment of other obligations stipulated in the contract.
- 3.14.3. Payments shall be made promptly by the Purchaser but in no case later than sixty (60) days after submission of the invoice or claim by the Supplier.
- 3.14.4. Payment shall be made in **Indian Rupees**.

3.16. Prices

Prices payable to the supplier as stated in the contract shall be firm during the performance of the contract.

3.17. Change Orders

- 3.17.1. The Purchaser may at any time, by written order given to the Supplier pursuant to **GCC Clause 4.33**, make changes within the general scope of the Contract in any one or more of the following:
- drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser.
 - the method of shipping or packing.
 - the place of delivery; and/or
 - the Services to be provided by the Supplier.
- 3.17.2. If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or delivery schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this clause must be asserted within thirty (30) days from the date of the Supplier's receipt of the Purchaser's change order.

3.18. Contract Amendments

Subject to GCC Clause 17, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

3.19. Assignment

The Supplier shall not assign, in whole or in part, its obligations to perform under the Contract, except with the Purchaser's prior written consent.

3.20. Subcontracts

- 3.20.1. The Supplier shall notify the Purchaser in writing of all subcontracts awarded under this Contract if not already specified in the tender. Such notification, in his original tender or later, shall not relieve the Supplier from any liability or obligation under the Contract. Sub-contracts shall be only for bought out items and sub-assemblies.
- 3.20.2. Subcontracts must comply with the provisions of GCC Clause 2.

3.21. Delays in the Supplier's Performance

- 3.21.1. Delivery of the Goods and performance of the Services shall be made by the Supplier in accordance with the time schedule specified by the Purchaser in the Schedule of Requirements.
- 3.21.2. If at any time during performance of the Contract, the Supplier or its sub-contractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may, at its discretion, extend the Supplier's time for performance with or without liquidated damages, in which case the extension shall be ratified by the parties by amendment of the Contract.
- 3.21.3. Except as provided under **GCC Clause 4.31**, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to **GCC Clause 4.27**, unless an extension of time is agreed upon pursuant to **GCC Clause 4.34** without the application of liquidated damages.

3.22. Liquidated Damages

- 3.22.1. All the items mentioned in the BOM should be supplied, delivered, and commissioned within the mentioned timelines. Subject to **GCC Clause 4.27** if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, any delay will attract a penalty. The applicable rate for liquidated damages for delay shall be:
 - 3.22.2. a sum equivalent to **0.1% of the contract price for One week**
 - 3.22.3. a sum equivalent to **0.2% per week of the contract price for the second and Third week**

- 3.22.4. a sum equivalent to **0.4% per week of the contract price for the fourth week**
- 3.22.5. From 5th week onwards, **0.5% per week for further 4 weeks**
- 3.22.6. A delay of more than 8 weeks will be sufficient to cause termination of the contract. In that case the **Performance Bank Guarantee of the bidder will be forfeited.**
- 3.22.7. The maximum amount of **liquidated damages delay shall be 10% of the contract price.**
- 3.22.8. Once the maximum delay is reached, the Purchaser **may consider termination of the Contract** pursuant to **GCC Clause 4.35**

3.23. Termination for Default

- 3.23.1. The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part:
 - a) if the Supplier fails to deliver any or all of the Goods within the period(s) specified in the Contract, or within any extension thereof granted by the Purchaser pursuant to **GCC Clause 4.34**; or
 - b) if the Supplier fails to perform any other obligation(s) under the Contract.
 - c) If the Supplier, in the judgement of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.For the purpose of this Clause:
“**Corrupt practice**” means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.
“**Fraudulent practice**” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition.
- 3.23.2. In the event the Purchaser terminates the Contract in whole or in part, pursuant to **GCC Clause 4.35.1**, the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to the Purchaser for any excess costs for such similar Goods or Services. However, the Supplier shall continue the performance of the Contract to the extent not terminated.

3.24. Force Majeure

- 3.24.1. Notwithstanding the provisions of **GCC Clauses 4.31**, the Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- 3.24.2. For the purposes of this Clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.

- 3.24.3. If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

3.25. Termination for Insolvency

The Purchaser may at any time terminate the Contract by giving written notice to the Supplier, if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Purchaser.

3.26. Termination for Convenience

- 3.26.1. The Purchaser, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.
- 3.26.2. The Goods that are complete and ready for shipment within 30 days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:
- a) to have any portion completed and delivered at the Contract terms and prices; and/or
 - b) to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and for materials and parts previously procured by the Supplier.

3.27. Settlement of Disputes

- 3.27.1. The Purchaser and the supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.
- 3.27.2. If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given.
- 3.27.3. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.
- 3.27.4. Arbitration proceedings shall be conducted in accordance with the rules of procedure specified in the SCC.
- 3.27.5. Notwithstanding any reference to arbitration herein,

- a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
- b) The Purchaser shall pay the Supplier any monies due the Supplier.

3.28. Limitation of Liability

3.28.1. Except in cases of criminal negligence or willful misconduct, and in the case of infringement pursuant to Clause 3.5,

- a) the Supplier shall not be liable to the Purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Purchaser; and
- b) the aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

3.29. Governing Language

The contract shall be written in English language. Subject to GCC Clause 3.30, English language version of the Contract shall govern its interpretation. All correspondence and other documents pertaining to the Contract which are exchanged by the parties shall be written in the same language.

3.30. Applicable Law

The Contract shall be interpreted in accordance with the laws of the Union of India.

3.31. Notices

Any notice given by one party to the other pursuant to this Contract shall be sent to other party in writing or by cable, telex or facsimile and confirmed in writing to the other Party's address specified in SCC. A notice shall be effective when delivered or on the notice's effective date, whichever is later.

3.32. Taxes and Duties

Suppliers shall be entirely responsible for all taxes, duties, license fees, octroi, road permits, etc., incurred until delivery of the contracted Goods to the Purchaser.

Section 4: Special Conditions of Contract (SCC)

4.1 Definitions

4.1.1 The following words and expressions shall have the meanings hereby assigned to them:

- (a) **“Contract”** means the Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendixes, and all documents incorporated by reference therein.
- (b) **“Contract Documents”** means the documents listed in the Agreement, including any amendments thereto.
- (c) **“Contract Price”** means the price payable to the Supplier as specified in the Agreement, subject to such additions and adjustments thereto or deductions therefrom, as may be made pursuant to the Contract.
- (d) **“Day”** means calendar day.
- (e) **“Delivery”** means the transfer of the Goods from the Supplier to the Purchaser in accordance with the terms and conditions set forth in the Contract.
- (f) **“Completion”** means the fulfilment of the related Services by the Supplier in accordance with the terms and conditions set forth in the Contract.
- (g) **“GCC”** means the General Conditions of Contract.
- (h) **“Goods”** means all of the Commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Purchaser under the Contract.
- (i) **“Purchaser’s Country”** is the country specified in the Special conditions of Contract.
- (j) **“Purchaser”** means the entity purchasing the Goods and Related Services, as specified in the SCC.
- (k) **“Related Services”** means the services incidental to the supply of the goods, such as insurance, installation, training and initial maintenance and other similar obligations of the Supplier under the Contract.
- (l) **“SCC”** means the Special Terms conditions of Contract.
- (m) **“Subcontractor”** means any natural person, private or government entity, or a combination of the above, including its legal successors or permitted assigns, to whom any part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier.

- (n) **“Supplier”** means the natural person, private or government entity, or a combination of the above, whose bid to perform the Contract has been accepted by the Purchaser and is named as such in the Agreement and includes the legal successors or permitted assigns of the Supplier.
- (o) Gujarat Skill Development Mission (GSDM) **“The Site,”** where applicable, means the venue/location named in the SCC.
- 4.2 Contract Documents** 4.2.1 Subject to the order of precedence set forth in the Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory.
- 4.3 Fraud and Corruption** 4.3.1 The Anticorruption Policy requires beneficiaries of Govt of Gujarat, as well as Bidders, Suppliers, and Contractors under this contract, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the Purchaser
- (a) defines, for the purposes of this provision, the terms set forth below as follows:
- i. “Corrupt practice” means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;
 - ii. “fraudulent practice” means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;
 - iii. “coercive practice” means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
 - iv. “collusive practice” means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party;
 - v. “obstructive practice” means (a) deliberately destroying, falsifying, altering, or concealing of evidence material to an GSDM investigation; (b) making false statements to investigators in order to materially impede an GSDM investigation; (c) failing to comply with requests to provide information, documents or records in connection with an Office of Anticorruption and Integrity (OAI) investigation; (d) threatening, harassing, or intimidating any

- party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or (e) materially impeding GSDM contractual rights of audit or access to information; and
- vi. "Integrity violation" is any act which violates GSDM Anticorruption Policy, including (i) to (v) above and the following: abuse, conflict of interest, violations of GSDM sanctions, retaliation against whistleblowers or witnesses, and other violations of GSDM's Anticorruption Policy, including failure to adhere to the highest ethical standard.
- (b) will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations in competing for the Contract;
- (c) will cancel the portion of the financing allocated to a contract if it determines at any time that representatives of the borrower or of a beneficiary of GSDM-financing engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations during the procurement or the execution of that contract, without the borrower having taken timely and appropriate action satisfactory to GSDM to remedy the situation; and
- (d) will impose remedial actions on a firm or an individual, at any time, in accordance with GSDM Anticorruption Policy and Integrity Principles and Guidelines (both as amended from time to time), including declaring ineligible, either indefinitely or for a stated period of time, to participate¹ in GSDM-financed, administered, or supported activities or to benefit from an GSDM financed, administered, or supported contract, financially or otherwise, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations
- 4.3.2 The Supplier shall permit GSDM to inspect the Supplier's accounts and records relating to the performance of the Supplier and to have them audited by auditors appointed by GSDM, if so, required by GSDM

¹ Whether as a Contractor, Subcontractor, Consultant, Manufacturer or Supplier, or Service Provider; or in any other capacity (different names are used depending on the particular Bidding Document).

- 4.4 Interpretation**
- 4.4.1 If the context requires it, singular means plural and vice versa.
- 4.4.2 Incoterms
- (a) The meaning of any trade term and the rights and obligations of parties thereunder shall be as prescribed by Incoterms.
- 4.4.3 Entire Agreement
- The Contract constitutes the entire agreement between the Purchaser and the Supplier and supersedes all communications, negotiations, and agreements (whether written or oral) of parties with respect thereto made prior to the date of Contract.
- 4.4.4 Amendment
- No amendment or other variation of the Contract shall be valid unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each party thereto
- 4.4.5 Non-waiver
- (a) Non-waiver
- (b) No relaxation, forbearance, delay, or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect, or restrict the rights of that party under the Contract, neither shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract.
- (c) Any waiver of a party's rights, powers, or remedies under the Contract must be in writing, dated, and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.
- 4.5. Language**
- 4.5.1 The Contract as well as all correspondence and documents relating to the Contract exchanged by the Supplier and the Purchaser, shall be written in the language specified in the SCC. Supporting documents and printed literature that are part of the Contract may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified in the SCC, in which case, for purposes of interpretation of the Contract, this translation shall govern.
- 4.5.2 The Supplier shall bear all costs of translation to the governing language and all risks of the accuracy of such translation
- 4.6. Joint Venture**
- 4.6.1 If the Supplier is a **Joint Venture** all the parties shall be jointly and severally liable to the Purchaser for the fulfillment of the provisions of the Contract and shall designate one party to act as a leader with authority to

- bind the Joint Venture. The composition or the constitution of the Joint Venture shall not be altered without the prior consent of the Purchaser.
- 4.7. Eligibility** 4.7.1 The potential bidders both OEM and/or Channel Partner are to be registered with n-Procure only Eligible, There OEM may be from any Countries are Eligible.
- 4.8. Notices** 4.8.1 Any Notice given by one party to the other pursuant to the Contract shall be in writing to the address specified in the SCC. The term “in writing” means communicated in written form with proof of receipt.
4.8.2 A Notice shall be effective when delivered or on the Notice’s effective date, whichever is later
- 4.9. Governing Law** 4.9.1 The Contract shall be governed by and interpreted in accordance with the laws of the Purchaser’s country, unless otherwise specified in the SCC.
- 4.10. Settlement of Disputes** 4.10.1 The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.
4.10.2 If the parties fail to resolve such a dispute or difference by mutual consultation within 28 days from the commencement of such consultation, either party may require that the dispute be referred for resolution to the formal mechanisms specified in the SCC
- 4.11. Scope of Supply** 4.11.1 Subject to the SCC, the Goods and Related Services to be supplied shall be as specified in “Scope of Supply and Technical Specification”
4.11.2 Unless otherwise stipulated in the Contract, the Scope of Supply shall include all such items not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required for attaining Delivery and Completion of the Goods and Related Services as if such items were expressly mentioned in the Contract.
- 4.12. Delivery** 4.12.1 The Delivery of the Goods and Completion of the Related Services shall be in accordance with the Delivery and Completion Schedule specified in the Clause 5.5. The details of shipping and other documents to be furnished by the Supplier are specified in the SCC.
- 4.13. Supplier’s Responsibilities** 4.13.1 The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with Clause 4.11, and the Delivery and Completion Schedule, as per Clause 4.12
- 4.14. Purchaser’s Responsibilities** 4.14.1 Whenever the supply of Goods and Related Services requires that the Supplier obtain permits, approvals, and import and other licenses from local public authorities, the Purchaser shall, if so, required by the Supplier, make its best effort to assist the Supplier in

complying with such requirements in a timely and expeditious manner

- 4.15. Contract Price**
- 4.15.1 The Contract Price shall be as specified in the Agreement subject to any additions and adjustments thereto, or deductions therefrom, as may be made pursuant to the Contract.
- 4.15.2 Prices charged by the Supplier for the Goods delivered and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid, with the exception of any price adjustments authorized in the SCC
- 4.16. Terms of Payment**
- 4.16.1 The Contract Price shall be paid as specified in the SCC
- 4.16.2 The Supplier's request for payment shall be made to the Purchaser in writing, accompanied by invoices describing, as appropriate, the Goods delivered and Related Services performed, and by the documents submitted pursuant to Clause 4.12 and upon fulfillment of all the obligations stipulated in the Contract.
- 4.17 Taxes and Duties**
- 4.17.1 For goods, the Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Purchaser
- 4.18. Performance Security**
- 4.18.1 The Supplier shall, within 28 days of the notification of Contract award, provide a Performance Security for the due performance of the Contract in the amounts and currencies specified in the SCC.
- 4.18.2 The proceeds of the Performance Security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
- 4.18.3 The Performance Security shall be denominated in the currencies of the Contract, or in a freely convertible currency acceptable to the Purchaser and shall be in one of the forms stipulated by the Purchaser in the SCC, or in another form acceptable to the Purchaser.
- 4.18.4 The Performance Security shall be discharged by the Purchaser and returned to the Supplier not later than 28 days following the date of completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless specified otherwise in the SCC
- 21 Subcontracting**
- 21.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under the Contract if not already specified in the Bid. Subcontracting shall in no event relieve the Supplier from any of its obligations, duties, responsibilities, or liability under the Contract
- 4.21.2 Subcontracts shall comply with the provisions of Clauses 4.3 and 4.7

4.22 Specifications and Standards

4.22.1 Technical Specifications and Drawings

- (a) The Supplier shall ensure that the Goods and Related Services comply with the technical specifications and other provisions of the Contract.
- (b) The Supplier shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designed by or on behalf of the Purchaser, by giving a notice of such disclaimer to the Purchaser.
- (c) The Goods and Related Services supplied under this Contract shall conform to the standards mentioned in **Technical Specification** and, when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate to the country of origin of the Goods.

4.23 Packing and Documents

- 4.23.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. During transit, the packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme temperatures, salt and precipitation, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the final destination of the Goods and the absence of heavy handling facilities at all points in transit.
- 4.23.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified in the SCC, and in any other instructions ordered by the Purchaser

4.24 Insurance

- 4.24.1 Unless otherwise specified in the SCC, the Goods supplied under the Contract shall be fully insured, in a freely convertible currency from an eligible country, against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery, in accordance with the applicable Incoterms or in the manner specified in the SCC

4.25 Transportation

- 4.25.1 Unless otherwise specified in the SCC, obligations for transportation of the Goods shall be in accordance with the Incoterms specified in Sections 6(Schedule of Supply).

4.26. Inspections and Tests

- 4.26.1 The Supplier shall at its own expense and at no cost to the Purchaser carry out all such tests and/or inspections of the Goods and Related Services as are specified in this bid document under the Scope of Supply.

- 4.26.2 The inspections and tests may be conducted on the premises of the Supplier or its Subcontractor, at point of delivery, and/or at the final destination of the Goods, or in another place in the Purchaser's country as specified in the SCC. Subject to **Sub-clause 4.26.3**, if conducted on the premises of the Supplier or its Subcontractor, all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Purchaser.
- 4.26.3 The Purchaser or its designated representative shall be entitled to attend the tests and/or inspections referred to in **Sub-clause 4.26.2**, provided that the Purchaser bear all its own costs and expenses incurred in connection with such attendance including, but not limited to, all traveling and board and lodging expenses.
- 4.26.4 Whenever the Supplier is ready to carry out any such test and inspection, it shall give reasonable advance notice, including the place and time, to the Purchaser. The Supplier shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Purchaser or its designated representative to attend the test and/or inspection
- 4.26.5 The Purchaser may require the Supplier to carry out any test and/or inspection not required by the Contract but deemed necessary to verify that the characteristics and performance of the Goods comply with the technical specifications, codes, and standards under the Contract, provided that the Supplier's reasonable costs and expenses incurred in the carrying out of such test and/or inspection shall be added to the Contract Price. Further, if such test and/or inspection impedes the progress of manufacturing and/or the Supplier's performance of its other obligations under the Contract, due allowance will be made in respect of the Delivery Dates and Completion Dates and the other obligations so affected
- 4.26.6 The Supplier shall provide the Purchaser with a report of the results of any such test and/or inspection
- 4.26.7 The Purchaser may reject any Goods or any part thereof that fail to pass any test and/or inspection or do not conform to the specifications. The Supplier shall either rectify or replace such rejected Goods or parts thereof or make alterations necessary to meet the specifications at no cost to the Purchaser, and shall repeat the test and/or inspection, at no cost to the Purchaser, upon giving a notice pursuant to **Sub-clause 4.26.4**

4.27. Liquidated Damages

- 4.26.8 The Supplier agrees that neither the execution of a test and/or inspection of the Goods or any part thereof, nor the attendance by the Purchaser or its representative, nor the issue of any report pursuant to **Sub-clause 4.26.6**, shall release the Supplier from any warranties or other obligations under the Contract
- 4.27.1 As per mentioned in Penalties Clause in this Document. Except as provided under GCC Clause 4.32, if the Supplier fails to deliver any or all of the Goods or perform the Related Services within the period specified in the Contract, the Purchaser may without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in the SCC of the Contract Price for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in the SCC. Once the maximum is reached, the Purchaser may terminate the Contract pursuant to GCC Clause 35.

4.28. Warranty

- 4.28.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract
- 28.2 Subject to **Sub-clause 4.22.1**, the Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the country of final destination.
- 4.28.3 The warranty shall remain valid for **36 months and 24 months comprehensive maintenance contract (after expiry of 36-month warranty)** after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the SCC.
- 4.28.6 If having been notified, the Supplier fails to remedy the defect within the period specified in the SCC, the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

4.31. Force Majeure

- 4.31.1 The Supplier shall not be liable for forfeiture of its Performance Security, liquidated damages, or termination for default if and to the extent that it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

4.33 Change Orders and Contract Amendments

4.31.2 For purposes of this clause, “Force Majeure” means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

4.31.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

4.33.1 The Purchaser may at any time order the Supplier through Notice in accordance GCC Clause 4.8, to make changes within the general scope of the Contract in any one or more of the following:

- a) drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;
- b) the method of shipment or packing;
- c) the place of delivery; and
- d) the Related Services to be provided by the Supplier

4.33.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier’s performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or in the Delivery and Completion Schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this Clause must be asserted within 28 days from the date of the Supplier’s receipt of the Purchaser’s change order

4.33.3 Prices to be charged by the Supplier for any Related Services that might be needed but which were not included in the Contract shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services

4.34. Extensions of Time

4.34.1 If at any time during performance of the Contract, the Supplier or its Subcontractors should encounter conditions impeding timely delivery of the Goods or completion of Related Services pursuant to **Clause 4.12**, the Supplier shall promptly notify the Purchaser in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Supplier’s notice, the Purchaser shall evaluate the situation and

may at its discretion extend the Supplier's time for performance, in which case the extension shall be ratified by the parties by amendment of the Contract

- 4.34.2 Except in case of Force Majeure, as provided under Clause 4.31, a delay by the Supplier in the performance of its Delivery and Completion obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to Clause 4.27, unless an extension of time is agreed upon, pursuant to **Sub-clause 4.34.1**.

4.35. Termination

4.35.1 Termination for Default

- (a) The Purchaser, without prejudice to any other remedy for breach of Contract, by Notice of default sent to the Supplier, may terminate the Contract in whole or in part,
- i. if the Supplier fails to deliver any or all of the Goods within the period specified in the Contract, or within any extension thereof granted by the Purchaser pursuant to Clause 4.34; or
 - ii. if the Supplier fails to perform any other obligation under the Contract.
- (b) In the event the Purchaser terminates the Contract in whole or in part, pursuant to Clause 4.35.1(a), the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Related Services similar to those undelivered or not performed, and the Supplier shall be liable to the Purchaser for any additional costs for such similar Goods or Related Services. However, the Supplier shall continue
- (c) performance of the Contract to the extent not terminated.
- (d) if the Supplier, in the judgment of the Purchaser has engaged in fraud and corruption, as defined in Clause 3, in competing for or in executing the Contract.

4.35.2 Termination for Insolvency

The Purchaser may at any time terminate the Contract by giving Notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Purchaser.

4.35.3 Termination for Convenience

- (a) The Purchaser, by Notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The Notice of termination shall specify that termination is for the Purchaser's

convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.

- (b) The Goods that are complete and ready for shipment within 28 days after the Supplier's receipt of the Notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect
- i. to have any portion completed and delivered at the Contract terms and prices; and/or
 - ii. to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Related Services and for materials and parts previously procured by the Supplier.

4.36. Assignment

- 4.36.1 Neither the Purchaser nor the Supplier shall assign, in whole or in part, their obligations under this Contract, except with prior written consent of the other party

Bid data Sheet - SCC

The following Special Conditions of Contract shall supplement the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. The corresponding clause number of the General Conditions is indicated in parentheses.

GCC 4.1.1(i)	The Purchaser's country is India
GCC 4.1.1(j)	The Purchaser is: The M.D., Gujarat Skill Development Mission, 3rd Floor, Block No. 2, Dr. Jivraj Mehta Bhavan, Gandhinagar - 382010, GUJARAT (India)
GCC 4.1.1 (o)	The Site is: One of eight IToTs, located at eight IToTs, located at Industrial Training Institute, Tarsali Opposite Army Canteen, Tarsali Road, Vadodara 390009, Gujarat The detail address as mentioned in the Schedule Supply,
GCC 4.4.2 (a)	The version of Incoterms shall be Incoterms 2022 or latest
GCC 4.5.1	The language shall be English Language for translation of supporting documents and printed literature is English
GCC 4.8.1	For notices , the Purchaser's address shall be: Attention: The M.D., Gujarat Skill Development Mission, 3rd Floor, Block No. 2, Dr. Jivraj Mehta Bhavan, Gandhinagar - 382010, GUJARAT (India) Phone: 91-8160304501 Email: to-gsdm-gnr@gujarat.gov.in
GCC 4.9.1	The governing law shall be the Laws of India
GCC 4.10.2	The dispute settlement mechanism to be applied pursuant to GCC Clause, shall be formal mechanism for the resolution of disputes shall be: a) In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, 1996, by a Sole Arbitrator. The Sole Arbitrator shall be appointed by agreement between the parties; failing such agreement, by the appointing authority namely the Indian Council of Arbitration/President of the Institution of Engineers (India)/The

	<p>International Centre for Alternative Dispute Resolution (India). A certified copy of the appointment Order shall be supplied to each of the Parties.</p> <p>b) Arbitration proceedings shall be held at Gandhinagar/Ahmedabad, Gujarat, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English.</p> <p>c) The decision of the arbitrators shall be final and binding upon both parties. The cost and expenses of Arbitration proceedings will be paid as determined by the Arbitrator. However, the expenses incurred by each party in connection with the preparation, presentation etc. of its proceedings shall be borne by each party itself.</p>
GCC 4.11.1	<p>The Scope of Supply shall be defined in Section 6, Clause 6.1 “Scope of Supply and Technical Specification”. At the time of awarding the Contract, the Purchaser shall specify any change in the Scope of Supply with respect to Scope of Supply, included in the Bidding Document. Such changes may be due, for instance, if the quantities of Goods and Related Services are increased or decreased at the time of award. Manuals and Drawings - before the goods and equipment are taken over by the Purchaser, the Supplier shall supply operation and maintenance manuals together with drawings of the goods and equipment. These shall be in such detail as will enable the Purchaser to operate, maintain, adjust and repair all parts of the equipment as stated in the specifications. The manuals and drawings shall be in the ruling language (English) and in such form and numbers as stated in the contract. Unless and otherwise agreed, the goods and equipment shall not be considered to be completed for the purpose of taking over until such manuals and drawings have been supplied to the Purchaser</p>
GCC 4.12.1	<p>Details of shipping and documents to be furnished by the Supplier shall be: (As per the destinations mentioned in Delivery and Completion Schedule of the BOQ): Upon delivery of the Goods to the transporter, the Supplier shall notify the Purchaser and send the following documents to the Purchaser:</p> <ol style="list-style-type: none"> copies of the Supplier’s invoice showing the description of the Goods, quantity, unit price, and total amount; delivery note, railway receipt, or truck receipt or airway bill in case of air transportation; insurance certificate/policies Manufacturers or Supplier’s warranty certificate; inspection certificate issued by the nominated inspection agency, and the Supplier’s factory inspection report; and certificate of origin. <p>The Purchaser shall receive the above documents before the arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses.</p>
GCC 4.13	<p>The Supplier is obliged to work closely with the Purchaser’s staff, act within its own authority and abide by directives issued by the Purchaser and implement activities. The Supplier will abide by the job safety</p>

	measures prevalent in India and will free the Purchaser from all demands or responsibilities arising from accidents or loss of life the cause of which is the Supplier's negligence. The Supplier will pay all indemnities arising from such incidents and will not hold the Purchaser responsible or obligated. The Supplier is responsible for managing the activities of its personnel or sub-contracted personnel and will hold itself responsible for any misdemeanours. The Supplier will treat as confidential all data and information about the Purchaser, obtained in the execution of his responsibilities, in strict confidence and will not reveal such information to any other party without the prior written approval of the Purchaser.
GCC 4.15.2	The price adjustment shall be: Not Applicable
GCC 4.16.2	<p>Payment of the Contract Price shall be made as per the payment Terms of the Contract Price shall be made in the following manner:</p> <p>The payment each milestone shall be done on the submission of Testing and Inspection report for the IToT along with Bill/invoice. The Testing and Inspection report should be signed by the Supplier, Team of Experts (ToE) appointed by Purchaser.</p> <ol style="list-style-type: none"> On delivery of all equipment at the destination as per the "Schedule and Scope Supply" - 80% of the Contract Price. On Installation & Commissioning of the supplied Tools and Equipment at destination and Demonstration: 10% of the Contract Price On Completion of On-site Training and producing completion certification from competitive authority at iTOT: final payment of 10% of the Contract Price
GCC 4.16.1	The currencies for payments shall be Indian Rupees in which the bid price is expressed in the bid of the successful bidder
GCC 4.18.1	<p>The Supplier shall provide a Performance Security of FIVE (5%) percent of the Total Contract Value for 66 Months (60+6). The Performance Security shall be denominated in the currencies in which the bid price (in INR) is expressed in the bid of the successful bidder within 28 days of receipt of the notification of contract award, the Supplier shall furnish Performance Security to the Purchaser for an amount mentioned, valid up to 60 days after the date of completion of performance obligations including Warranty and CMC after warranty obligations. In the event of any correction of defects or replacement of defective material during the Warranty period, the Warranty for the corrected/replaced material shall be extended to a further period of 12 months and the Performance Through e-procurement portal for proportionate value shall be extended 60 days over and above the initial Warranty period. The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract. The Performance Security shall be denominated in Indian Rupees and shall be in one of the forms: (a)Through e-procurement portal or</p>

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	irrevocable Letter of Credit, issued by a Nationalized/Scheduled bank in the form provided in the tender documents or another form acceptable to the Purchaser; or (b) A cashier's check or Banker's certified check, or crossed demand draft or pay order drawn in favour of the Purchaser.; The Performance Security will be discharged by the Purchaser and returned to the Supplier not later than 60 days following the date of completion of the Supplier's performance obligations, including any Warranty obligations and CMC, under the Contract. In the event of any contract amendment, the Supplier shall, within 21 days of receipt of such amendment, furnish the amendment to the Performance Security, rendering the same valid for the duration of the Contract as amended for 60 days after the completion of performance obligations including Warranty obligations.
GCC 4.18.3	The forms of acceptable Performance Security are A bank guarantee issued by a reputable bank located in the Purchaser's country, acceptable to the Purchaser, in the format included Bid, or a cashier's or certified check, or cash
GCC 4.18.4	Discharge of the Performance Security shall take place: NA
GCC 23.2	<p>The packing, marking, and documentation within and outside the packages shall be:</p> <p>Packing: (1) The supplied Goods shall be packed by standard protective measures. Such packing shall be suitable for long distance transportation and well protected against dampness, moisture, shock, rust and rough handling so as to ensure that the Goods will safely arrive at the designated site without any damage due to the above-mentioned reasons, and</p> <p>(2) In each package, there shall be one copy each of the detailed packing list and the quality certificate.</p> <p>Marking:(1) The Supplier shall mark the following on the four adjacent sides of each package with indelible paint in conspicuous English printed words:</p> <p>CONSIGNEE, CONTRACT NO. SHIPPING MARK, CONSIGNEE CODE, DESTINATION, NAME OF GOODS AND ITEM NO., CASE NO. GROSS/NET WEIGHT (Kg), MEASUREMENT (LENGTH x WIDTH x HEIGHT IN CM)</p> <p>(2) If any package weighs two (2) tons or more, the Supplier shall mark on two sides of each package in English and with appropriate transportation marks to show the "center of gravity" and "points of slinging" to facilitate loading, discharging and handling. According to the characteristics of the Goods and the different requirements in transportation, packages shall be marked legibly by the Supplier with words "Handle with Care", "Right Side Up", "Keep Dry", etc., and with other appropriate marks.</p>
GCC 4.24.1	<p>The insurance coverage shall be in accordance with:</p> <p>Pursuant to GCC, Sub clause 24.1, the Supplier must insure the Goods in an amount equal to 110% of the CIF, CIP or (DAP) Delivered at Place (purchaser specified place) with unloading and installation as a responsibility of seller</p>

GCC 4.25.1	Obligations for transportation of the Goods shall be in accordance with Incoterms 2022 or latest
GCC 4.26.2	Tests and Inspections specified in BOQ, shall be carried out at the following times or milestones, and places: The Purchaser or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no extra cost to the Purchaser. SCC and the Technical Specifications shall specify what inspections and tests the Purchaser requires and where they are to be conducted. The Purchaser shall notify the Supplier in writing in a timely manner of the identity of any representatives retained for these purposes. The inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s), at point of delivery and/or at the Goods final destination. If conducted on the premises of the Supplier or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data - shall be furnished to the inspectors at no charge to the Purchaser. Should any inspected or tested Goods fail to conform to the specifications, the Purchaser may reject the goods and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Purchaser. The Purchaser's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival at Project Site shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by the Purchaser or its representative prior to the Goods shipment
GCC 4.27.1	<p>The applicable rate for liquidated damages for delay shall be:</p> <ul style="list-style-type: none"> a) a sum equivalent to 0.1% of the contract for One week b) a sum equivalent to 0.2% per week of the contract price for the second and Third week c) a sum equivalent to 0.4% per week of the contract price for the fourth week d) from 5th week onwards, 0.5% per week for further 4 weeks e) A delay of more than 8 weeks will be sufficient to cause termination of the contract. In that case the Performance Bank Guarantee of the bidder will be forfeited. f) The maximum amount of liquidated damages delay shall be 10% of the contract price. g) Once the maximum is reached, the Purchaser may consider termination of the Contract pursuant to GCC Clause 23
GCC 4.28.3	<p>The period of validity of the Warranty shall be: 36 months from the date of the acceptance of the Testing and Inspection report of items supplied and 24 months of comprehensive maintenance contract (CMC) post completion of warranty period.</p> <p>The place of final destination shall be as per Delivery and Completion Schedule as per Scope of Supply and Schedule.</p>
GCC 4.28.5	The Supplier shall attend to the complaint within 72-hours of the receipt of complaint and correct any defects covered by the Warranty within 5 working days of being notified by the Purchaser of the occurrence of such defects and/or after attending the complaint.

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GCC 4.31.1	The amount of aggregate liability shall be 100% of the contract price.
GCC 4.34.1	Except in the case of Force Majeure, as provided under Clause 4.32, a delay by the Supplier in the performance of its Delivery and Completion obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to Clause 4.27. Extension of time is not permissible.
GCC 4.35.1	The Purchaser, without prejudice to any other remedy for breach of Contract, by issue Notice of default sent to the Supplier, may terminate the Contract in whole or in part.

Section 5: Scope and Schedule of Supply

5.1 Bill of Quantity with minimum Technical Specifications of equipment

The Gujarat Skill Development Mission (GSDM) under the Labour, Skill Development and Director Employment and Training (DET) on behalf of Employment Department (LSD & ED), Gujarat on behalf of GATI, Government of Gujarat issued this Tender for selection of Supplier for **Supply of tools and equipment** and related Works (during installation and commissioning) to establish one of the eight International Standard IToT in **Fitter Trade** at **ITI Tarsali, Gujarat, India**. The scope of supply under this Tender also involves minor **civil and electrical related works** need to be performed at the time of installation and commissioning of supplied tools and equipment. For the details of the Scope of Supply, and Technical Specifications of tools and equipment, please refer to Section 6, Clause – 6.1, and 6.2 of this Bid documents. **The BoQ - details of related works (minor civil works, electrical works and IT related internet/networking works) not indicated under the scope of supply of this bid document but to be performed at the time of installation and commissioning of supplied tools and equipment**, are to be identified by the bidder and specify in the prescribed **Form-22: Price Schedule for Related Services/Works**) and submitted along with Technical Bid. The floor plans, Layouts of the Labs/Workshops, where the supplied tools and equipment are to be installed, can be downloaded. **The cost of related services/works, , shall not be evaluated with the price bid but will be negotiated and awarded separately with the contracted/successful bidder only.**

5.2 Supply of tools and equipment for the Labs/Workshops, Classrooms

The Bidder is required to supply, install, configure, test and commission the required equipment as per the Quantifiable Specification / Standards of the **Related Works/Service including** including machine tools, trainees Tool kit and PPEs, Equipment General Shop Outfit + Spares & Consumables, Hardware, software and computers and accessories as per the technical and functional specification mentioned in this Bid document. The bidder needs to provide comprehensive, on-site training on deployed training and service team. Warranty Support as part of the warranty services bidder shall provide a comprehensive on-site and free **warranty for 36 months and thereafter 24 months comprehensive maintenance contract (CMC)** from the date of installation & commissioning, this also includes all licensed software, any other third-party tool, Bidder shall provide the comprehensive manufacturer's warranty and support in respect of proper design, quality and workmanship of all hardware, equipment, accessories etc. covered by the bid. The bidder must warrant all hardware, equipment, accessories, spare parts, software etc. procured and implemented as per this bid against any manufacturing defects during the warranty period. The bidder shall provide the performance warranty in respect of performance of the installed hardware and software to meet the performance requirements and service levels in the bid. The Bidder shall ensure that the products quoted **should not be declared “End of**

Production” for next 7 years and “End of support” for the next 10 years by the OEM from the date of bid submission. As mentioned in the pre-qualification criteria, the bidder/OEM to ensure all supplies, especially items under the category **(a) General Shop Outfit (GSOF) (b) IT, audio-visuals and Software related equipment (ITE), (c) Other Support Training equipment (OSTE), (d) Personal Protective Equipment(PPE)** are most recent series models incorporating the latest improvements in design and the models should have been **released on or after December 2020** and be in **satisfactory operation for six (06) months** as on date of tender opening. The complete list of Goods, equipment with minimum technical specifications and required quantity is indicated in **Section 6** of this Bid document. The **total number of 218 Goods, Tools, equipment and Consumables & Spares under this Bid/Package for IToT Tarsali pertaining to Fitter Trade**, are categorized in term of (i) **GSOF** – General Shop Outfit, (ii) **OSTE** – Other Support Training Equipment, (iii) **HT** – Hand Tools, Trainees Tool Kit (iv) **PPE** – Personal Protective Equipment, (v) **MISC** – Standards, Charts, Drawing instruments (vi) **ITE** – IT, Audio-visuals, Software related Equipment, and (vii) **CON** – Consumables. For a detailed list of equipment under the above category, **please refer to Section 6** of this Bid document.

5.3 Testing and Inspection:

- a) A **Team of Experts (ToE)** authorized by the Purchaser may carry out third-party tests and inspections for all Goods to be supplied under the Contract. It shall include but not limited to the Physical inspections of Goods, Conformation/ Compliance of approved Technical Specifications and Prescribed Standards, Codes, and software licenses. In case of fabricated items/furniture all dimensions as per approved drawings and data sheets shall be checked by inspecting authority.
- b) The Supplier or his representative(s), and ToE as appointed by Purchaser shall jointly conduct inspections and testing of the Goods in the **IToT Tarsali** where the goods will be installed and commissioned by the Supplier. All costs involved in arranging and performing such inspections except the expenses of ToE shall be borne by the Supplier.

5.4 Delivery and Completion Schedule

Milestones for supply will be mutually decided between the Purchaser and the successful Supplier. The Supplier(s) will be provided with the exact details of Location/destination (IToT) from the Purchaser. The delivery period shall start as of the date of signing the contract agreement. Delivery shall take place in compliance with the dates, duration and locations indicated in the Table below. The bidder may conduct a site visit before the submission of bid at its own cost to ascertain the site condition of IToT, internet connectivity, etc.

Package-2

IToT Tarsali – Fitter Trade

IFB NO: GSDM/GATI/IToT (08)-2023/09

Delivery and Completion Schedule

#	Scope of Supply/Works		Timeline/Delivery (Calendar Days)
1	Signing of Contract and/or Issue of Purchase Order	T ₀	00
2	Site inspection for identifying/assessing, related Works and Services involved in installation and commission	T ₁	T ₀ + 7
3	Pre-Dispatch Inspection by the ToE (nominated by Purchaser)	T ₂	T ₀ + 90
4	Supply of tools and equipment at destination/IToT Location	T ₃	T ₀ + 130
5	Installation & Commissioning of Tools and Equipment as per the Lab Layouts	T ₄	T ₃ + 15
6	Onsite Training on installed Equipment	T ₅	T ₄ + 15
7	Completion Certificate	T ₆	T ₅ + 15
8	Total Calendar days (T₀ to T₆) to complete		175

“T” is the date of issuing of final Purchase Order (PO)/Contract.

“T+120” means 120-Calendar days from “T” (starting date/issuing PO)

A indicative list of District/Block-wise spread of IToTs in Gujarat for the supply of goods and allied services/Works

#	Name and address of the IToT Consignee (Location/Destination where items are to be delivered as per delivery Schedule)	District
1	Industrial Training Institute, Tarsali Opposite Army Canteen, Tarsali Road, Vadodara 390009, Gujarat, India Phone: 0265 264 1491 Email iti-tarsali-vad@gujarat.gov.in (to be confirmed)	Vadodara, Gujarat

5.5 Technical Specifications

Please refer to Section-6 of this Bid document for detailed specification of tools and equipment.

5.6 Drawings and Layouts, for allied services/Works

The layouts of lab/workshops where the goods/equipment will be installed, commissioned shall be provided by the purchaser to the successful Bidder along with contract agreement. However, the copy of schematic drawings indicating overall floor plan and layout of Workshops are depicted below for reference only.

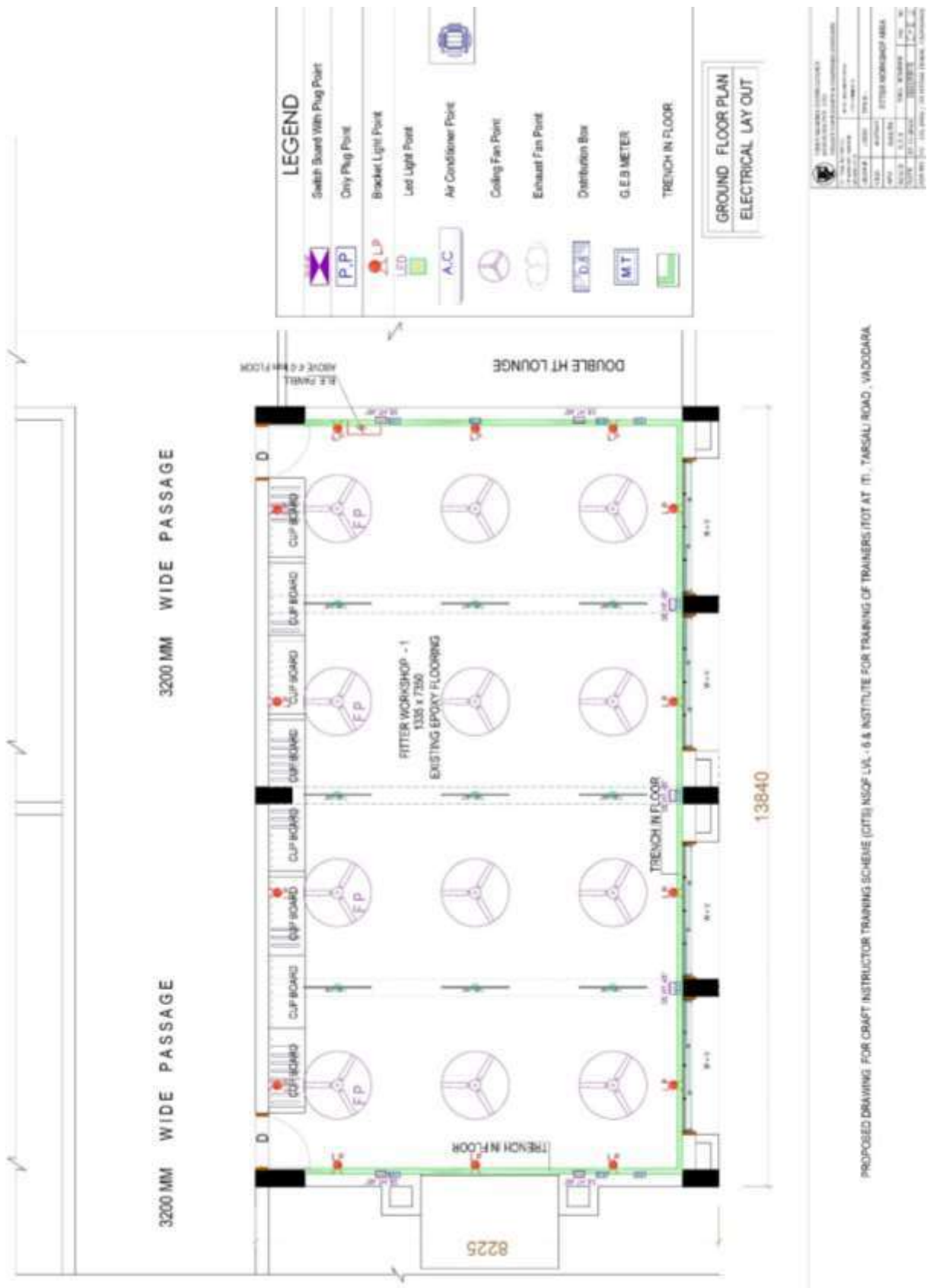
The Bidders are required to provide drawings (for installation and commissioning), printed catalogues, Brouchures, and furnish other relevant information pertaining to the offered tools and equipment, along-with with Technical Bid.

Package-2

IToT Tarsali – Fitter Trade

IFB NO: GSDM/GATI/IToT (08)-2023/09

Overall Floor Plan of IToT Ground Floor.

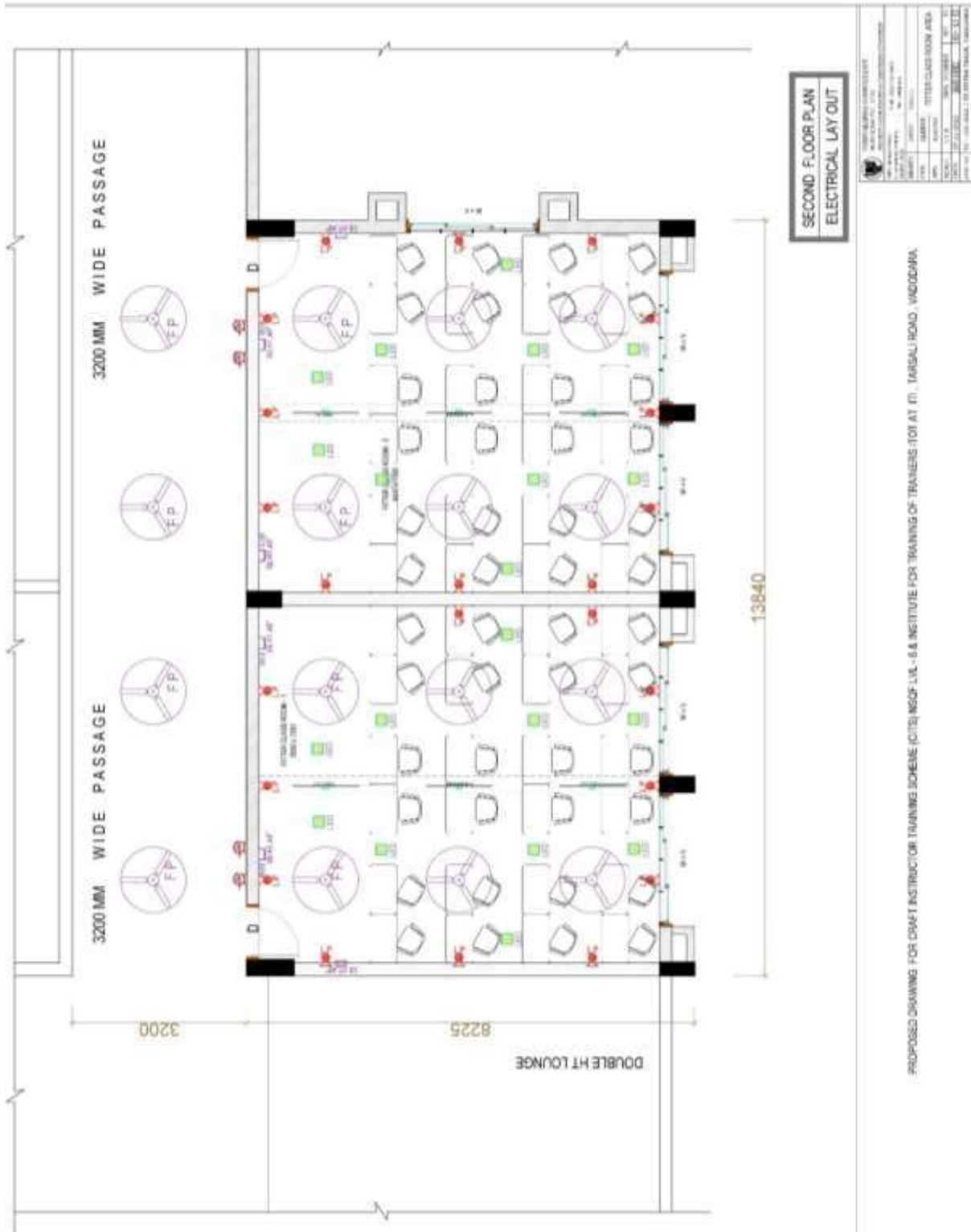


Package-2

IToT Tarsali – Fitter Trade

IFB NO: GSDM/GATI/IToT (08)-2023/09

Layout Plan – 2nd Floor



Section 6 - Technical Specifications

[Notes:]

- a) *Text of Technical specifications to be inserted in the Tender Documents by the Purchaser, as applicable.*
- b) *The Specifications should be drafted to permit the widest possible competition and, at the same time, present a clear statement of the required standards of workmanship, materials, and performances of the goods to be procured. Only if this is done will the objectives of economy, efficiency and fairness in procurement is realized, responsiveness of tenders be ensured, and the subsequent task of tender evaluation facilitated.*
- c) *Wherever the goods are covered by Bureau of Indian Standards (BIS), the references to the Standards should be given.*
- d) *Wherever the goods are not covered by Bureau of India Standards (BIS), bidder should furnish quality certificate from Quality Council of India (QCI) or any other certificate as approved by Government of India.*
- e) *Reference to brand name and catalogue number should be avoided as far as possible; Where unavoidable, they should be followed by the words "or at least equivalent"]*

List of Tools and Equipment, Goods and Technical Specification

List of goods and Technical Specification of items/goods/equipment/services with Quantity indicated in the Table below. It is desired that the bidder shall furnish technical specification(s) with Make/Brand against each line item, in the prescribed format.

6.1. List of Goods, Tools and Equipment with Category

All 218 items under this scope of Supply for IToT Tarsali pertaining to Fitter Trade, are categorized in term of (i) **GSOF** – General Shop Outfit, (ii) **OSTE** – Other Support Training Equipment, (iii) **ITE** – IT, Audio-visuals, Software related Equipment, (iv) **HT** – Hand Tools, Trainees Tool Kit (v) **PPE** – Personal Protective Equipment, (vii) **CON** – Consumables, (ix) **MISC** – Standards, Charts, Drawing instruments. Item wise applicable Standard Warranty (**SWY**) of 12 months, Extended Warranty (**EWY**) of 24 months and Comprehensive Maintenance Contract (**CMC**) against each line item in term of “Yes” and “NO” is also indicated. Bidders while making price offers requires considering the same.

#	Category	Name	Qty	CMC (24 Month)	EWY (24 Month)	SWY 12 Month)
1	GSOF	SS and SC centre lathe (all geared)	2	Y	Y	Y
2	GSOF	Hydraulic / Electro-Hydraulic/ Analysis and control of Hydraulics.	1	Y	Y	Y
3	GSOF	Pneumatic / Electro-Pneumatic/ Analysis and control of Pneumatic.	1	Y	Y	Y
4	GSOF	Advance Factory Automation Training kits	1	Y	Y	Y
5	GSOF	Application Learning Systems	1	Y	Y	Y
6	GSOF	Hydraulic Power Saw Machine suitable	1	Y	Y	Y
7	GSOF	CNC turn Centre	1	Y	Y	Y
8	GSOF	Universal Milling machine with minimum specification	1	Y	Y	Y
9	GSOF	Vertical Milling Machine	1	Y	Y	Y
10	GSOF	CNC Machining Centre	1	Y	Y	Y
11	GSOF	CNC milling tools to suit above machine (Sl. No. 187):	2	Y	Y	Y
12	GSOF	Surface Grinding Machine	1	Y	Y	Y
13	GSOF	Universal Tool and Cutter Grinding Machine	1	Y	Y	Y
14	OSTE	Interchangeable ratchet socket set	1	Y	Y	Y
15	OSTE	Hand reamer adjustable cover	1	N	N	Y
16	OSTE	Hand reamer taper	1	N	N	Y
17	OSTE	Reamer parallel	1	N	N	Y
18	OSTE	Set combination	2	Y	Y	Y
19	OSTE	Micrometer	3	Y	Y	Y
20	OSTE	Micrometer	3	Y	Y	Y
21	OSTE	Micrometer	2	Y	Y	Y

Section 6

Technical Specification with Required Value/Range

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#	Category	Name	Qty	CMC (24 Month)	EWY (24 Month)	SWY 12 Month)
22	OSTE	Micrometer Inside	1	Y	Y	Y
23	OSTE	Vernier calliper	3	Y	Y	Y
24	OSTE	Vernier Height Gauges	1	Y	Y	Y
25	OSTE	Vernier bevel protractor	1	Y	Y	Y
26	OSTE	Drill Twist Taper Shank	1	N	N	Y
27	OSTE	Drill chuck	1	N	Y	Y
28	OSTE	Wheel dresser(1for4units)	1	N	N	Y
29	OSTE	Machine vice	1	N	Y	Y
30	OSTE	Machine vice	1	N	Y	Y
31	OSTE	Sleeve drill Morse	1	N	Y	Y
32	OSTE	Bench Vice	20	N	Y	Y
33	OSTE	Leg Vice	2	N	Y	Y
34	OSTE	Dial Test Indicator	1	Y	Y	Y
35	OSTE	Lathe Tools HSS Tipped set	2	N	N	Y
36	OSTE	Lathe Tools Bit HSS	13	N	N	Y
37	OSTE	Counter Boring and Counter sinking Tool	2	N	Y	Y
38	OSTE	Arm strong type bit holder RH	2	N	Y	Y
39	OSTE	Arm strong type bit holder LH	2	N	Y	Y
40	OSTE	Arm strong type bit holder Straight	2	N	Y	Y
41	OSTE	Straight edge	2	N	Y	Y
42	OSTE	Surface Plate	2	Y	Y	Y
43	OSTE	Marking table	1	Y	Y	Y
44	OSTE	Universal scribing block	2	N	Y	Y
45	OSTE	V- block pair	2	N	Y	Y
46	OSTE	Square adjustable	2	N	Y	Y
47	OSTE	Angle plate	2	N	Y	Y
48	OSTE	Spirit Level	1	N	Y	Y
49	OSTE	Portable hand drill (electric)	2	Y	Y	Y
50	OSTE	Twist Drill straight shank	1	N	N	Y
51	OSTE	Twist Drill straight shank	1	N	N	Y

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Technical Specification with Required Value/Range

IFB NO: GSDM/GATI/IToT (08)-2023/09

#	Category	Name	Qty	CMC (24 Month)	EWY (24 Month)	SWY 12 Month)
52	OSTE	Taps and dies complete set	1	N	N	Y
53	OSTE	Taps and dies complete set	1	N	N	Y
54	OSTE	Taps and dies complete set	1	N	N	Y
55	OSTE	Pipe wrench	1	N	N	Y
56	OSTE	Pipe wrench	1	N	N	Y
57	OSTE	Pipe vice	2	N	N	Y
58	OSTE	Adjustable pipe tap set BSP with Dies set	1	N	N	Y
59	OSTE	Wheel dresser(1for4units)	1	N	N	Y
60	OSTE	Machine vice	1	N	Y	Y
61	OSTE	Machine vice	1	N	Y	Y
62	OSTE	Sleeve drill morse	1	N	Y	Y
63	OSTE	Bench Vice	25	N	Y	Y
64	OSTE	Leg Vice	2	N	Y	Y
65	OSTE	Gauge slip as Johnson metric set	1	Y	Y	Y
66	OSTE	Carbide wear block	2	Y	Y	Y
67	OSTE	Gauge snaps	1	Y	Y	Y
68	OSTE	Gauge plug single ended	1	Y	Y	Y
69	OSTE	Gauge Telescopic	1	Y	Y	Y
70	OSTE	Dial Vernier Calliper	1	Y	Y	Y
71	OSTE	Vernier Micrometer	1	Y	Y	Y
72	OSTE	Depth Micrometer	1	Y	Y	Y
73	OSTE	Vernier Calliper	1	Y	Y	Y
74	OSTE	Comparators Stand with Dial Indicator	1	Y	Y	Y
75	OSTE	Surface Roughness comparison plates	1	Y	Y	Y
76	OSTE	Digital Vernier Calliper	1	Y	Y	Y
77	OSTE	Digital Outside Micrometer	1	Y	Y	Y
78	OSTE	Digital Dial Test Indicator	1	Y	Y	Y
79	OSTE	Digital Universal Hardness Tester	1	Y	Y	Y
80	OSTE	Flat tongs	4	N	N	Y
81	OSTE	Round tongs	2	N	N	Y

Section 6

Technical Specification with Required Value/Range

IFB NO: GSDM/GATI/IToT (08)-2023/09

#	Category	Name	Qty	CMC (24 Month)	EWY (24 Month)	SWY 12 Month)
82	OSTE	Straight snips	6	Y	Y	Y
83	OSTE	Bend snips	6	Y	Y	Y
84	OSTE	Solder bit/soldering iron hatchet type	4	Y	Y	Y
85	OSTE	Anvil	2	Y	Y	Y
86	OSTE	Swage block	1	Y	Y	Y
87	OSTE	Trammel	2	Y	Y	Y
88	OSTE	Hand groover	1	Y	Y	Y
89	OSTE	Portable forge with hand blower	1	Y	Y	Y
90	OSTE	Gas cutting torch with different noses	1	Y	Y	Y
91	OSTE	Arc welding table with positioner	2	Y	Y	Y
92	OSTE	Gas welding table with fire bricks	1	Y	Y	Y
93	OSTE	Grinding attachment for Lathe sl. No 159	1	Y	Y	Y
94	OSTE	Dial Test Indicator	1	Y	Y	Y
95	OSTE	Sine bar	1	Y	Y	Y
96	OSTE	Sine bar	1	Y	Y	Y
97	OSTE	Micron suitable to measure minimum 300mm distance. (Optional)	1	Y	Y	Y
98	OSTE	Surface roughness tester	1	Y	Y	Y
99	OSTE	Air-conditioned	10	Y	Y	Y
100	OSTE	Drilling Machine pillar type with drill chuck & key.	2	Y	Y	Y
101	OSTE	Pedestal Grinder Double End type.	2	Y	Y	Y
102	OSTE	Power Saw Machine Stroke length 160 mm	1	Y	Y	Y
103	OSTE	Fly Press 4T capacity	1	Y	Y	Y
104	OSTE	Arc welding transformer-single phase, 200 Amps.	2	Y	Y	Y
105	OSTE	Oxy-acetylene gas welding plant with all accessories	1	Y	Y	Y
106	OSTE	TIG Welding Machine	1	Y	Y	Y
107	OSTE	Hardness testing machine	1	Y	Y	Y
108	OSTE	Work Bench	6	N	Y	Y
109	OSTE	Special tools and equipment	1	Y	Y	Y
110	OSTE	Tool holder to suit the CNC machine (Sl. No. 183)	2	Y	Y	Y
111	OSTE	worktable to mount small machines	6	N	Y	Y

Section 6

Technical Specification with Required Value/Range

IFB NO: GSDM/GATI/IToT (08)-2023/09

#	Category	Name	Qty	CMC (24 Month)	EWY (24 Month)	SWY 12 Month)
112	OSTE	worktable to mount small machines	2	N	Y	Y
113	OSTE	worktable to mount small machines	2	N	Y	Y
114	OSTE	work benches with bench vices and storage draws	1	N	Y	Y
115	OSTE	DG Set	1	Y	Y	Y
116	OSTE	Engineering Drawing Trainees Tool Kit	26	Y	Y	Y
117	OSTE	Air conditioning for classroom	1	Y	Y	Y
118	OSTE	Air Conditioner	4	Y	Y	Y
119	HT	Try Square	26	N	N	Y
120	HT	Straight scribe	26	N	N	Y
121	HT	Flat File	26	N	N	Y
122	HT	Flat File	26	N	N	Y
123	HT	Hacksaw frame fixed	26	N	N	Y
124	HT	Outside calliper	5	N	N	Y
125	HT	Inside calliper	5	N	N	Y
126	HT	Calliper	5	N	N	Y
127	HT	Divider	5	N	N	Y
128	HT	Screwdriver	5	N	N	Y
129	HT	Cold Chisel Flat	5	N	N	Y
130	HT	Ball pein Hammer	13	N	N	Y
131	HT	Ball pein Hammer	13	N	N	Y
132	HT	Half-round File	13	N	N	Y
133	HT	Dot punch	13	N	N	Y
134	HT	Warding File	4	N	N	Y
135	HT	Knife edge File	4	N	N	Y
136	HT	File saw	4	N	N	Y
137	HT	File feather edge	4	N	N	Y
138	HT	File triangular	2	N	N	Y
139	HT	File round	8	N	N	Y
140	HT	File square	4	N	N	Y
141	HT	File square	4	N	N	Y

Section 6

Technical Specification with Required Value/Range

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#	Category	Name	Qty	CMC (24 Month)	EWY (24 Month)	SWY 12 Month)
142	HT	Feeler gauge	1	N	N	Y
143	HT	File triangular	6	N	N	Y
144	HT	File Swiss type needle	2	N	N	Y
145	HT	File half-round	6	N	N	Y
146	HT	File round	4	N	N	Y
147	HT	File Card	6	N	N	Y
148	HT	Oilcan	2	N	N	Y
149	HT	Pliers combination	2	N	N	Y
150	HT	Spanner Metric—worth D.E. set of 10 pcs.	6	N	N	Y
151	HT	Spanner adjustable	2	N	N	Y
152	HT	Box Spanner	1	N	N	Y
153	HT	Clamp toolmaker	2	N	N	Y
154	HT	Clamp"C"	2	N	N	Y
155	HT	Clamp"C"	2	N	N	Y
156	HT	Scraper flat	6	N	N	Y
157	HT	Scraper 3 corner	6	N	N	Y
158	HT	Scraper half round	6	N	N	Y
159	HT	Chisel cold	6	N	N	Y
160	HT	Chisel cold	6	N	N	Y
161	HT	Chisel cold	6	N	N	Y
162	HT	Extractor Stud	2	N	N	Y
163	HT	Screw pitch gauge	1	N	N	Y
164	HT	Wire gauge, metric standard	1	N	N	Y
165	HT	Wing Compass	2	N	N	Y
166	HT	Hand Hammer	2	N	N	Y
167	HT	Radius Gauges(Assorted)	13	N	N	Y
168	HT	Engineers Try Square (Knife wedge) 150mmBlade.	1	N	N	Y
169	HT	Steel Rule	4	N	N	Y
170	HT	Steel Rule	4	N	N	Y
171	HT	Letter Punch Set	1	N	N	Y

Section 6

Technical Specification with Required Value/Range

IFB NO: GSDM/GATI/IToT (08)-2023/09

#	Category	Name	Qty	CMC (24 Month)	EWY (24 Month)	SWY 12 Month)
172	HT	Number Punch set	1	N	N	Y
173	HT	Wing Compass	2	N	N	Y
174	HT	Hand Hammer	2	N	N	Y
175	HT	Engineers Try Square (Knife wedge)	1	N	N	Y
176	HT	Radius Gauges (Assorted)	13	N	N	Y
177	ITE	CAD software (latest version)	13	Y	Y	Y
178	ITE	Desktop computer	13	Y	Y	Y
179	ITE	UPS	13	Y	Y	Y
180	ITE	Smart Interactive Touch screen TV / Monitor	1	Y	Y	Y
181	ITE	Surround speakers	1	Y	Y	Y
182	ITE	All in one copier	3	Y	Y	Y
183	ITE	Computer	3	Y	Y	Y
184	ITE	Desktop Computer	26	Y	Y	Y
185	ITE	Auto-CAD Software	26	Y	Y	Y
186	ITE	Laser Jet printer	1	Y	Y	Y
187	ITE	UPS	26	Y	Y	Y
188	ITE	LCD Projector	1	Y	Y	Y
189	ITE	Computer System with latest configuration with	1	Y	Y	Y
190	ITE	UPS	1	Y	Y	Y
191	ITE	LCD Projector Screen	1	Y	Y	Y
192	ITE	Document Camera / Visualizer	1	Y	Y	Y
193	ITE	Smart Board / Inter Active Board	2	Y	Y	Y
194	ITE	Over Head Projector	2	Y	Y	Y
195	ITE	Video Camera with stand	1	Y	Y	Y
196	ITE	Printer cum Scanner	1	Y	Y	Y
197	ITE	Laptop with all latest OS	1	Y	Y	Y
198	MISC	Safety chart sand posters	10	N	N	Y
199	MISC	Whiteboard with magnetic duster	1	N	N	Y
200	MISC	First-aid box	1	N	N	Y
201	MISC	White board	1	N	N	Y

Section 6

Technical Specification with Required Value/Range

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#	Category	Name	Qty	CMC (24 Month)	EWY (24 Month)	SWY 12 Month)
202	MISC	Pin board	4	N	N	Y
203	MISC	White Board	1	N	N	Y
204	MISC	Wall Clock	1	N	N	Y
205	MISC	Wall charts, Transparencies and DVDs related to the trade	1	N	N	Y
206	PPE	Safety goggles.	26	N	N	Y
207	PPE	Fire Extinguisher	2	Y	Y	Y
208	PPE	Fire Buckets	2	Y	Y	Y
209	PPE	Fire Extinguisher	2	Y	Y	Y
210	PPE	Fire Buckets	2	Y	Y	Y
211	PPE	Leather gloves	4	N	N	Y
212	PPE	Leather apron	4	N	N	Y
213	PPE	Asbestos gloves	4	N	N	Y
214	PPE	Equipment for conducting BLS (Basic Life Support) training.	1	N	N	Y
215	PPE	Equipment for conducting BLS (Basic Life Support) training	1	N	N	Y
216	CON	Stone oil	4	N	N	N
217	CON	Carborundum stone	2	N	N	N
218	CON	Consumables	1	N	N	N

6.2. List of Goods, Tools and Equipment and Technical Specification

(The specification and required value/range given against each line item is generic/approximate and not anticipated any specific/particular brand/model/make. However, the generic specification indicated in view of the international standard/repute IToT institution.)

#	Name of the Item/ Equipment	UoM	Specifications Required Value / Range	Total Qty to be procured	Country of Origin (to be filled by the Bidder)	Specification (To be filled by the Supplier)	Pass/Fail (By Purchaser)
1	SS and SC center lathe (all geared) with having minimum specification as: center height 150mm and centre distance 1000mm along with 4 jaw and 3 jaw chucks, auto feed system, safety guard, motorized coolant system and lighting arrangement.	Nos.	SS and SC centre lathe with standard accessories and complete set of Tools & Tooling System. Lathe Machine Specification • Height of centres – Minimum 150 mm, • Centre distance - Minimum 1000 mm • Max Swing over bed – Minimum 350 mm, • Max Swing over carriage Minimum 200mm, • Width of bed – Minimum 200 mm, • Distance between centres – Minimum 450 mm, • Spindle speed - 12 min (from 32 to 1200 rpm), • Feed: longitudinal - 18 from 0.05 to 2.50 mm/rev, • Feed: cross - 18 from 0.01 to 0.50 mm/rev, • Main motor - 3/1500 kW/rpm, • Power of coolant motor - Minimum 60 w Standard accessories: Face plate – 01No, 3-Jaw Chuck - with 2 set of jaws, 4-Jaw chuck dia.200mm with chuck flange – 01No, Steady Rest -4No, Centre sleeve, • Oil gun, • Scarp tray • Motorized coolant equipment – 01 No. • Taper turning attachment - 01No. • lighting arrangement -Machine lamp for 220V – 01No. • Safety Guard. • Tool post guard • foot brake • Machine Spanner Set – 01 Set. Tools & Tooling System: Atleast Set of Turning Tool Holders and Cutting Tools of reputed make as indicated below. a) OD Turning Tool Holders (L.H., R.H., Straight) –10 Nos. Each b) Precision Drill Chuck (key less) -05Nos.	2			

Section 6

Technical Specification with Required Value/Range

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#	Name of the Item/ Equipment	UoM	Specifications Required Value / Range	Total Qty to be procured	Country of Origin (to be filled by the Bidder)	Specification (To be filled by the Supplier)	Pass/Fail (By Purchaser)
			c) Threading (External) Tool Holders at least -8 Set. d) Threading (Internal) tool 25 – 50 mm at least 8-Set. e) Boring Tool Holder for outer Ø 12 to 32 mm- 4-Set each f) Face Grooving Tool Holder 50 mm 8-Set. g) OD Grooving Tool holder 04-Set. h) Parting Tool (4 mm and 3 mm width) 8-Set each i) Arm strong type tool bit holder straight, Left-Hand, Right-Hand, suit to 10MM Tool Bits – 4-Set each type j) HSS Tools bit 6MM, 8MM, 10MM x Length 100MM(4-Inch) – 12Nos Each k) Set of Brazed Carbide Tip/Insert Tool Holders to suit the machine for Lathe Operations – Turning, Facing, Grooving, Thread Cutting (External/Internal), Boring upto 50MM, Parting-off, Knurling. Etc – 4Set each. l) Spares and consumables for three years. Three Sets of Machine operating Installation, Maintenance and Spare part manual.				
2	Design, supply, installation, commissioning, testing and training of Hydraulic / Electro-Hydraulic/ Analysis and control of Hydraulics.	Set	1.The Hydraulic Training Kit must be hydraulic based standalone training kit which should cover pure hydraulic systems, Electro hydraulic systems, Analysis and control technology. The kit should have software for PC-supported acquisition, representation and documentation of analogue measured values of hydraulic components and systems.	1			

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			<ul style="list-style-type: none"> The kit should facilitate learning and demonstration of following topics: Design and function of a Hydraulic System, Electro hydraulic Design and Function of Pilot operated valves and solenoid valve Symbols according to international standards. Basic Circuit Diagrams on practical applications Hydraulic energy Electrical logics AND/OR Reading and understanding technical data and measurement curves Interpretation of measurement results Analytical fault finding Control technology with position, sequence and pressure control Hydraulic controls with pilot operated valves Hydraulic reservoirs, flow distributors Basic principles of analogue processing Each Hydraulic component should have quick fix arrangement for easy, quick & safe mounting. All the components should be included as simulation models in the component library of Hydraulic simulation 				

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			<p>software. All exercises given in the work books should be readily available as simulation condition in Hydraulic simulation software. The components should be fixed manually on the profile plate without tools.</p> <ul style="list-style-type: none"> Each hydraulic component should have connectors with size of G$\frac{1}{4}$ "thread & NRV. Each electro hydraulic components should have 4 mm safety sockets. The kit should be modular and upgradable so that future investments to higher levels of training are reduced. <p>Double sided work station (Minimum L 1250mm, W 700mm, H 1700mm) should be consisting of</p> <ul style="list-style-type: none"> Modular and to be assembled and commissioned in the site. Vertically/inclined mounted. Suitable attachment frame with all necessary mounting kits Reinforced grid or Grooved plate as single piece made of Aluminum profile with both sides grooves. Connection termination via quick disconnects couplings. Single / Double row rack to hold electronics 				

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			<ul style="list-style-type: none"> • Suitable drawer unit for storing the components • Component sizes matching the simulator • Quick plug-in locking system for mounting on profile plates • Precision quick connectors located on top of components providing easy access • Connectors are self-closing with no leakage • Suitable distributor with depressurized circuit • Circulation at zero pressure (manually / electrically) • The Container inside the workstation should have at least four drawer units to keep Hydraulic components • All supporting accessories should be included • The workstation should be Ergonomically designed • Hydraulic Power pack with constant-displacement pump • Tank: 32 / 40 l, sight glass, temperature display, drain screw 3- 5 l/ min • With AC motors, three-phase • Tank lid with filter and return filter 				

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			<ul style="list-style-type: none"> Leak proof, self-sealing coupling nipples for P and T Plug socket for unpressurised return Hose tray for minimum 20 hoses – 2 Nos. Oil tray <p>Safety: The system shall be design with all possible safety interlocks.</p> <p>Valves: 1) All the valves shall be conforming to IS 4411 or other relevant codes.</p> <p>Basic hydraulic training components with Operating Pressure 60 bar & Maximum Operating Pressure 120 bar , Each set consist of: (4Set)</p> <p>4/2-way valve: hand lever operated, spring return.- 01 No.</p> <ul style="list-style-type: none"> Valve port pattern, hydraulic ISO/DIN 4401 size 02 Leak proof, self-sealing coupling nipples <p>4/3-way valve: hand lever operated with detent, AB to T,- 01 No.</p> <ul style="list-style-type: none"> Valve port pattern, hydraulic ISO/DIN 4401 size 02 Leak proof, self-sealing coupling nipples 4/3-way valve: hand lever operated with detent, closed mid position- 01 No. Valve port pattern, hydraulic ISO/DIN 4401 size 02 Leak proof, self-sealing coupling nipples 				

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			<ul style="list-style-type: none"> Pressure relief valve: Manual Adjustment, Included with non-return valve.- 01 No. 2-way flow control valve: Manual actuation with Differential pressure of the pressure balance 0.55 MPa (5.5 bar) - 01 No. Non-return valve: pilot operated with Suitable Tube length - 01 No. <p>Double acting cylinder with 200 mm stroke length- 01 No.</p> <ul style="list-style-type: none"> Non-return valve with Suitable Tube length - 01 No. Manually actuated One-way flow control valve with Inbuilt non-return valve- 01 No. Shut off valve - 01 No. <p>Suitable T connector (Ports: 2x coupling nipples and 1x quick coupling socket) for specified pressure.- 5 Nos.</p> <p>4-way distributor with gauge- 2 Nos.</p> <ul style="list-style-type: none"> Quality class 1.6% of the full scale value Operating pressure, static: 3/4 of the full scale value Operating pressure, dynamic: 2/3 of the full scale value Cushioning: glycerin <p>Suitable Flow sensor - 01 No.</p>				

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			<ul style="list-style-type: none"> Clockwise/anti-clockwise rotation: output as analogue value from 0 – 10 V Operating voltage 24 V DC Measuring range 0 – 10 l/min Analogue output 0 – 10 V Electrical connection on 4 mm safety sockets <p>load simulator with protective cover (minimum 8 kgs)- 01 No.</p> <p>Hydraulic motor: 01 No.</p> <ul style="list-style-type: none"> Bi directional motor with external leakage line connection with freewheel on shaft side, Maximum permissible pressure in the return line 5 MPa (50 bar), Displacement: 8.2 cm³ per revolution, 0 – 10 l/min equates to 0 – 1220 r.p.m. Design: orbit <p>Pressure gauge - 3 Nos.</p> <ul style="list-style-type: none"> Effective range and maximum permissible pressure 12 MPa Quality class 1.6% of the full scale value Operating pressure, static: 3/4 of full scale value Operating pressure, dynamic: 2/3 of full scale value Cushioning: glycerin 				

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			<p>Hydraulic hose with quick release coupling, 600 mm length- 8 Nos.</p> <ul style="list-style-type: none"> Suitable operating Temperature Min. bending radius 100 mm Note: All above accessories shall be suitable to the specified operating & maximum pressure. <p>Hydraulic hose with quick release coupling, 1000 mm length- 4 Nos.</p> <ul style="list-style-type: none"> Suitable operating Temperature Min. bending radius 100 mm <p>Hydraulic hose with quick release coupling, 1000 to 1500 mm length- 2 Nos.</p> <ul style="list-style-type: none"> Suitable operating Temperature Min. bending radius 100 mm Note: All above accessories shall be suitable to the specified operating & maximum pressure. <p>Digital multimeter- 1 No.</p> <ul style="list-style-type: none"> Voltage: 1 mV – 600 V Current: 0.1 μA – 10 A Resistance: 0.1 Ω – 40 MΩ Frequency: 1 Hz – 10 MHz Capacitance: 0.01 nF – 100 μF <p>2. Add-on Electro Hydraulics training components set; each set consist of: The design should comply with the supplied rack fittings.</p>				

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			<p>Terminated on to contact safe connector sockets</p> <p>Electro hydraulic training components with Operating Pressure 60 bar & Maximum Operating Pressure 120 bar , Each set consist of: (4 Set)</p> <p>Power supply unit- 1 No.</p> <ul style="list-style-type: none"> • Input voltage: 230 ± 10% V AC (50 Hz) • Output voltage: 24 V DC, short-circuit proof • Electrical assembly mounting single /double row rack to hold electronics modules <p>Relay unit with three relays, 4 changeover switches- 2 Nos.</p> <ul style="list-style-type: none"> • Contact load: max. 5 A • Cut-off load: max. 90 W • Pick-up time: 10 ms • Drop-off time: 8 ms • NEMA variant: Symbols as per NEMA standard <p>Signaling unit with an illuminated pressure switch, three illuminated push button, each with a mini bulb.- 1 No.</p> <ul style="list-style-type: none"> • Contact set: 1 makes, 1 breaks • Contact load: Maximum 2 A • Power consumption (Miniature bulb): • 0.48 W 				

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			<ul style="list-style-type: none"> NEMA variant: Symbols as per NEMA standard <p>Limit switch, electrical, actuation via trip cams (from the left)- 1 No.</p> <ul style="list-style-type: none"> contact load: maximum 5 A <p>Limit switch, electrical, actuation via trip cams (from the right)- 1 No.</p> <ul style="list-style-type: none"> contact load: maximum 5 A <p>Double acting cylinder with 200 mm stroke length- 1 No.</p> <ul style="list-style-type: none"> Note: All above accessories shall be suitable to the specified operating & maximum pressure. <p>Electronic pressure switch- 1 No.</p> <ul style="list-style-type: none"> Operating voltage 18 – 35 V DC Switching outputs 2 x PNP, maximum 1.2 A Effective range and maximum permissible pressure 12 MPa Analogue output (0 – 10 V) 4-digit digital display <p>Proximity sensor with cylinder mounting- 2 Nos.</p> <ul style="list-style-type: none"> Connection with suitable safety connectors Switching output, NO contact (PNP) with switching status indication 				

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			<ul style="list-style-type: none"> Overload and short-circuit proof, with reverse polarity protection Operating voltage 5 – 30 V DC Output current: max. 100 mA Switching time (on/off) max. 5ms or better DC 4/2-way double solenoid valve, 24VDC- 1 No. Actuation: switching solenoid Valve port pattern, hydraulic ISO/DIN 4401 size 02 Leak proof, self-sealing coupling nipples 24 V DC power Minimum 6.5 W output <p>DC 4/2-way solenoid valve, spring return, 24VDC- 1 No.</p> <ul style="list-style-type: none"> Actuation: switching solenoid Valve port pattern, hydraulic ISO/DIN 4401 size 02 Leak proof, self-sealing coupling nipples 24 V DC power Minimum 6.5 W output <p>DC 4/3-way solenoid valve, closed mid position 24VDC- 1 No.</p> <ul style="list-style-type: none"> Actuation: switching solenoid Valve port pattern, hydraulic ISO/DIN 4401 size 02 Leak proof, self-sealing coupling nipples 				

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			<ul style="list-style-type: none"> 24 V DC power Minimum 6.5 W output Electrical connection: Suitable safety socket <p>3.Add-on Process Sequence control and Analysis of Hydraulic System Each set consist of: (4Set)</p> <ul style="list-style-type: none"> Input/output box for digital signals with 4 mm safety plugs and 24-pin or suitable connector.- 1 No. <p>Inputs: 3 safety sockets each for 8 three-wire sensors</p> <ul style="list-style-type: none"> Outputs: 2 safety sockets each for 8 actuators Connections: 4 mm safety sockets for 24 V DC, I/O status display: Via LED <p>Communication cable to connect interface unit and input/output box for digital signals.</p> <p>Input/output box for analogue signals with 4 mm safety plugs and 24-pin or suitable connector.- 1 No.</p> <ul style="list-style-type: none"> Permissible voltage range: 22 – 27 V DC Reference Ground Analog voltage input: Input 4nos, Range: 0 to +10 V, (max. 30 V), 				

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			<ul style="list-style-type: none"> Analog output: 2 nos., Voltage: 0 to +10 V, Short circuit proof: max. ± 30 V, protected, current: max. 20 mA <p>Communication cable to connect interface unit and input/output box for analogue signals- 1 No.</p> <p>Interface unit with two 24-pin and one 15-pin connector or suitable connector.- 1 No.</p> <ul style="list-style-type: none"> One USB port, it should have a LCD display. The unit should work as an interface unit for measuring, open-loop control, closed-loop control and it should connects the simulation to the real world. By using the interface unit (it is an interfacing device only and not PLC) it should be able to control the electro hydraulic training kit by hydraulic simulation software. <p>4/3-way valve, solenoid operated, relieving mid-position- 1 No.</p> <ul style="list-style-type: none"> Actuation: switching solenoid Operating pressure 6 MPa (60 bar) Maximum permissible pressure 12 MPa (120 bar) Valve port pattern, hydraulic ISO/DIN 4401 size 02 No leakage, self-sealing coupling nipples 				

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			<ul style="list-style-type: none"> 24 V DC power Minimum 6.5 W output Electrical connection: 4 mm safety socket <p>Pressure sensor, it should be inserted at any point for pressure measurement and should give an analogue output- 2 Nos.</p> <ul style="list-style-type: none"> Operating voltage 20 – 30 V DC Effective range and maximum permissible pressure 12 MPa Analogue output 0 to + 10 V Electrical connection on 4 mm safety plug <p>Flow control valve- 1 No.</p> <ul style="list-style-type: none"> Actuation: manual Note: All above accessories shall be suitable to the specified operating & maximum pressure. Limit switch, electrical, actuation via trip cams (from the left)- 1 No. contact load: maximum 5 A <p>Hydraulic hose with quick release coupling with resistance, 1000 mm length- 1 No.</p> <ul style="list-style-type: none"> Operating pressure 6 MPa Max. permissible pressure 12 MPa Suitable operating Temperature <p>Software for Measurement & Control in Hydraulics: 1 User</p> <ul style="list-style-type: none"> Software for acquisition of transient response, display and documentation of 				

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			<p>analogue measured values in hydraulic equipment and systems through the use of common industrial sensors with voltage output signal for pressure, force and flow rate with exercises and training assistance. The exercises are broken down into the areas of basic experiments, cylinder controllers, proportional technology and control technology. The interface to hydraulic components, as well as sensor technology, must be adapted by means of the software. The software also controls the measuring sequence. Results should be gauged with measuring points, printed out or exported to a spread sheet programmer. Furthermore, the software also should include the entire collection of exercises as a PDF file.</p> <p>Software for Virtual process simulator models: - 1 user</p> <ul style="list-style-type: none"> A graphical 2D process simulator with numerous attractive examples for PLC training, a wide variety of practical process models can be controlled with any PLC using connection unit. The following topics should be included: Multi-level parking garages, Sluice gates, Sorting systems, Hot water tanks, Washing machines, 7- 				

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			<p>segment display, Alarm systems, Level crossings, Elevators, Garage doors, Wind generators and much more</p> <p>4.Hydraulic simulation software: (4 Users)</p> <ul style="list-style-type: none"> The simulation tool hydraulics should include a circuit creation tool, a high-performance simulation tool and a comprehensive learning tutorial. This software package should be provide keeping in mind that this should be a handy tool for the trainers in Educational Training Institutes & corporate training centres to go hand in hand with the latest in the industry. With this software, The software should be possible to simulate circuits hydraulics, electro hydraulics, servo hydraulics, proportional and digital technologies. Functional features of products & components can be understood The virtual cut sectional animation lets the students to know the internal details of the product & to understand the functions simultaneously Trainers can explain about the products and can educate the students at a very short period, so as to have ample time on 				

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			<p>using trainer kits to gain more practical knowledge</p> <ul style="list-style-type: none"> • Even a non-technical person can easily understand the concepts of hydraulic products • By using the software, controlling of Electro hydraulic components should be possible through interfacing unit. • The software should be possible to simulate circuits hydraulics, electro hydraulics, servo hydraulics, proportional and digital technologies <p>5.Manuals</p> <ul style="list-style-type: none"> • Basic hydraulic – Hard copy of Text book- 1 No. • Basic hydraulic – Hard copy of Exercises book- 1 No. • Electro Hydraulics – Hard copy of Text book- 1 No. • Electro Hydraulics – Hard copy of Exercises book- 1 No. 				
3	Design, supply, installation, commissioning, testing and training of Pneumatic / Electro-Pneumatic/ Analysis and control of Pneumatic.	Set	<p>Pneumatic Trainer Kit 04 sets</p> <p>Each pneumatic component should have Quick-Fix arrangement for easy, quick & safe mounting. All the components should be included as simulation models in the component library of Pneumatic simulation software.</p>	1			

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			<p>All exercises given in the work books should be readily available as simulation condition in Pneumatic simulation software.</p> <p>The components should be fixed manually on the profile plate without tools.</p> <p>Each pneumatic component should have pneumatic connectors with size of 1/8"/5mm port size for 4 mm tubing</p> <p>The kit should be modular and upgradable so that future investments to higher levels of training are reduced.</p> <p>Double sided work station (Minimum L 1250mm, W 700mm, H 1700mm) should be consisting of Modular and to be assembled and commissioned in the site.</p> <p>Vertically/inclined mounted.</p> <p>Suitable attachment frame with all necessary mounting kits</p> <p>Reinforced grid or Grooved plate as single piece made of Aluminum profile with both sides grooves.</p> <p>Connection termination via quick disconnects couplings.</p> <p>Single / Double row rack to hold electronics</p> <p>Suitable drawer unit for storing the components</p> <p>Component sizes matching the simulator</p> <p>Quick plug-in locking system for mounting on profile plates</p> <p>Precision quick connectors located on top of components providing easy access</p> <p>Safety</p>				

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			<p>The system shall be design with all possible safety interlocks</p> <p>Valves</p> <p>1) All the valves shall be conforming to IS 15407 or other relevant codes</p> <p>Dry compressed air supply with required line pressure shall be made available at the installation site.</p> <p>The individual connections and its fitting for each workbench, its installation and commissioning shall be in the scope of supplier.</p> <p>Double acting cylinder – 2 Nos.</p> <ul style="list-style-type: none"> • Piston dia: 20 mm • Stroke length: Maximum 100 mm • Operating pressure: Maximum 1000 kPa (10 bar) • Pneumatic connection for plastic tubing 4 mm <p>Single acting cylinder – 1 No.</p> <ul style="list-style-type: none"> • Piston dia: 20 mm • Stroke length: Maximum 50 mm • Operating pressure: Maximum 1000 kPa (10 bar) • Pneumatic connection for plastic tubing 4 mm <p>3/2-way valve with push button with spring return – 3 Nos.</p> <ul style="list-style-type: none"> • Type: NC • Actuation: Pushbutton 				

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			<ul style="list-style-type: none"> Pressure range: 0 - 8 bar Flow rate: 60 l/min Pneumatic connection for plastic tubing 4 mm <p>3/2-way valve with push button with spring return – 1 No.</p> <ul style="list-style-type: none"> Type: NO Actuation: Pushbutton Pressure range: 4 - 8 bar Flow rate: 100 l/min Pneumatic connection for plastic tubing 4 mm <p>3/2-way roller lever valve – 3 Nos.</p> <ul style="list-style-type: none"> Type: NC Actuation: Roller lever Pressure range: 0 - 8 bar Flow rate: 80 l/min Pneumatic connection for plastic tubing 4 mm <p>3/2-way roller lever valve – 1 No.</p> <ul style="list-style-type: none"> Type: NC Actuation: idle return roller lever Pressure range: 0 - 8 bar Flow rate: 80 l/min Pneumatic connection for plastic tubing 4 mm <p>5/2-way valve with selector switch – 1 No.</p>				

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			<ul style="list-style-type: none"> Actuation: Selector switch Pressure range: 0 - 8 bar Flow rate: 90 l/min Pneumatic connection for plastic tubing 4 mm <p>5/2 pneumatically actuated DCV with return spring – 1 No.</p> <ul style="list-style-type: none"> Actuation: Pneumatically Pressure range: 0 - 10 bar Flow rate: 500 l/min Pneumatic connection for plastic tubing 4 mm <p>5/2 pneumatically actuated DCV double sided – 3 Nos.</p> <ul style="list-style-type: none"> Actuation: Pneumatically Pressure range: 0 - 10 bar Flow rate: 600 l/min Pneumatic connection for plastic tubing 4 mm <p>OR logic valve: - 1 No.</p> <ul style="list-style-type: none"> Type: OR gate Pressure range: 1 - 10 bar Flow rate: 500 l/min Pneumatic connection for plastic tubing 4 mm <p>AND logic valve: - 1 No.</p> <ul style="list-style-type: none"> Type: AND gate Pressure range: 1 - 10 bar 				

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			<ul style="list-style-type: none"> Flow rate: 550 l/min Pneumatic connection for plastic tubing 4 mm <p>Pressure sequence valve: - 1 No.</p> <ul style="list-style-type: none"> Pressure range: 2 - 8 bar Flow rate: 100 l/min Pneumatic connection for plastic tubing 4 mm <p>Pneumatic timer: - 1 No.</p> <ul style="list-style-type: none"> Range: Max 5s Pressure range: 3 - 8 bar Flow rate: 90 l/min Pneumatic connection for plastic tubing 4 mm <p>Quick exhaust valve: - 1 No.</p> <ul style="list-style-type: none"> Pressure range: 1 - 10 bar Flow rate: 1000 l/min Pneumatic connection for plastic tubing 4 mm <p>Flow control valve with check valve: - 2 Nos.</p> <ul style="list-style-type: none"> Pressure range: 1 - 10 bar Flow rate: 200 l/min Pneumatic connection for plastic tubing 4 mm <p>Manometer: - 2 Nos.</p> <ul style="list-style-type: none"> Display and pressure range: 0 - 10 bar Pneumatic connection for plastic tubing 4 mm 				

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			<p>Air filter with pressure controller and manometer: - 1 No.</p> <ul style="list-style-type: none"> Pressure range: 1 - 12 bar Flow rate: 750 l/min Filter grade: 40 µm With on/off valve with silencer <p>Pressure controller and manometer: - 1 No.</p> <ul style="list-style-type: none"> Pressure range: 1 - 12 bar Flow rate: 800 l/min Pneumatic connection for plastic tubing 4 mm <p>Distributor with 6 outputs: - 1 No.</p> <ul style="list-style-type: none"> Pressure range: 1 - 16 bar 6 Outputs via non return valve Pneumatic connection for plastic tubing 4 mm <p>Polyurethane plastic tube, 4 mm: 15 M</p> <ul style="list-style-type: none"> Pressure range: 1 - 10 bar Size: 4 mm Colour: Blue <p>Tee connector for 4 mm tube: 10 Nos.</p> <ul style="list-style-type: none"> Pressure range: 1 - 14 bar Size: 4 mm <p>Electro Pneumatic trainer kit - Add-on04 sets</p> <p>Power supply unit- 1 No.</p> <ul style="list-style-type: none"> Input voltage: 230 ± 10% V AC (50 Hz) 				

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			<ul style="list-style-type: none"> Output voltage: 24 V DC, short-circuit proof Electrical assembly mounting single /double row rack to hold electronics modules <p>Relay unit with three relays, 4 changeover switches- 1 No.</p> <ul style="list-style-type: none"> Contact load: max. 5 A Cut-off load: max. 90 W Pick-up time: 10 ms Drop-off time: 8 ms NEMA variant: Symbols as per NEMA standard <p>Signaling unit with an illuminated pressure switch, three illuminated push button, each with a mini bulb.- 1 No.</p> <ul style="list-style-type: none"> Contact set: 1 makes, 1 breaks Contact load: Maximum 2 A Power consumption (Miniature bulb): 0.48 W NEMA variant: Symbols as per NEMA standard <p>Limit switch, electrical, actuation via trip cams (from the left)- 1 No.</p> <ul style="list-style-type: none"> contact load: maximum 5 A <p>Limit switch, electrical, actuation via trip cams (from the right)- 1 No.</p> <ul style="list-style-type: none"> contact load: maximum 5 A 				

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			3/2-Way Solenoid Valve: - 1 No. <ul style="list-style-type: none"> • Pressure range: 0 - 10 bar • Flow rate: 500 l/min • Pneumatic connection for plastic tubing 4 mm • Electrical connection via integrated 4 mm safety sockets • 24 V DC power supply • Pneumatic connection for plastic tubing 4 mm 5/2-Way single Solenoid Valve: - 1 No. <ul style="list-style-type: none"> • Pressure range: 0 - 10 bar • Flow rate: 500 l/min • Pneumatic connection for plastic tubing 4 mm • •Electrical connection via integrated 4 mm safety sockets • 24 V DC power supply • Pneumatic connection for plastic tubing 4 mm 5/2-Way double Solenoid Valve: - 1 No. <ul style="list-style-type: none"> • Pressure range: 0 - 10 bar • Flow rate: 600 l/min • Pneumatic connection for plastic tubing 4 mm • Electrical connection via integrated 4 mm safety sockets 				

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			<ul style="list-style-type: none"> 24 V DC power supply Pneumatic connection for plastic tubing 4 mm <p>Proximity reed switch: 2 Nos.</p> <ul style="list-style-type: none"> Connection via 4 mm safety sockets Switching output N/O contact (PNP) with switching status indication Overload and short-circuit proof, with reverse polarity protection Operating voltage 5 – 30 V DC Output current: max. 100 mA With cylinder mounting <p>Pressure and vacuum switch: - 1 No.</p> <ul style="list-style-type: none"> Power supply 12 – 30 V DC Switching output PNP Pneumatic connection for plastic tubing 4 mm Pressure measuring range -1 – 8 bar Quick fix secure click-on system for mounting on the existing profile plate <p>4mm connection cables: Min. 90 cables in diff. length as required and red and blue colour</p> <ul style="list-style-type: none"> Plugs with rigid protective sleeve and axial socket for safety Conductor cross section: 1 mm² 1000 V CAT II Rated current: 16 A 				

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			<p>Add-on Process Sequence control and Analysis of Pneumatics System Each set consist of:</p> <p>Input/output box for digital signals with 4 mm safety plugs and 24-pin or suitable connector.- 1 No.</p> <ul style="list-style-type: none"> Inputs: 3 safety sockets each for 8 three-wire sensors Outputs: 2 safety sockets each for 8 actuators Connections: 4 mm safety sockets for 24 V DC, I/O status display: Via LED <p>Communication cable to connect interface unit and input/output box for digital signals.</p> <p>Input/output box for analogue signals with 4 mm safety plugs and 24-pin or suitable connector.- 1 No.</p> <ul style="list-style-type: none"> Permissible voltage range: 22 – 27 V DC Reference Ground Analog voltage input: Input 4nos, Range: 0 to +10 V, (max. 30 V), Analog output: 2 nos., Voltage: 0 to +10 V, Short circuit proof: max. ± 30 V, protected, current: max. 20 mA 				

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			<p>Communication cable to connect interface unit and input/output box for analogue signals- 1 No.</p> <p>Interface unit with two 24-pin and one 15-pin connector or suitable connector.- 1 No.</p> <ul style="list-style-type: none"> One USB port, it should have a LCD display. The unit should work as an interface unit for measuring, open-loop control, closed-loop control and it should connects the simulation to the real world. By using the interface unit (it is an interfacing device only and not PLC)it should be able to control the electro pneumatic training kit by pneumatic simulation software. <p>Flow sensor with display: - 1 No.</p> <ul style="list-style-type: none"> Rotatable, 90° detenting M12x1 connector, 5-pin Cable with M12 x 1 socket and 4 mm safety plug Switching output, 2 x PNP Analogue output 0 – 10 V Operating voltage range 12 – 30 V DC Flow measurement range 0.5 – 50 l/min <p>Pressure Sensor with Display: - 2 Nos.</p> <ul style="list-style-type: none"> Power supply 15 – 30 V DC 				

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			<ul style="list-style-type: none"> Switching output PNP Analogue output 0 – 10 V DC Pneumatic connection for plastic tubing 4 mm Pressure measuring range 0 – 10 bar <p>Non-return valve: - 2 Nos.</p> <ul style="list-style-type: none"> Operating pressure: 0.5 to 10 bar Standard nominal flow rate: 108 l/min Flow control valve: - 3 Nos. Standard nominal flow rate 85 l/min <p>Proportional pressure regulator: - 1 No.</p> <ul style="list-style-type: none"> Supply voltage: 21.6 – 26.4 V/3.6 W Residual ripple: 10% Electrical setpoint value: 0 – 10 V Inlet pressure 7 – 8 bar Pressure regulation range: 0.15 – 6 bar Flow rate: 600 l/min Pneumatic connection for plastic tubing 4 mm <p>Software for Analysis and Control in Pneumatics – 1 user: With the data acquisition software just, a few simple steps are needed to configure the interface, adapt the sensors and select the language. This software should be able to do acquisition and documentation of analogue measured values in pneumatic equipment and systems using common industrial sensors with voltage output signal for pressure and flow rate</p>				

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			<p>with exercises and training assistance. The exercises should be broken down into the areas of basic experiments, cylinder controllers, proportional technology and control technology. The interface to pneumatic components, as well as sensor technology, must be adapted by means of the software.</p> <p>Software for Virtual process simulator models: - 1 user, A graphical 2D process simulator with numerous attractive examples for PLC training, a wide variety of practical process models can be controlled with any PLC using connection unit. The following topics should be included: Multi-level parking garages, Sluice gates, Sorting systems, Hot water tanks, Washing machines, 7-segment display, Alarm systems, Level crossings, Elevators, Garage doors, Wind generators and much more</p> <p>Pneumatic simulation software: The simulation tool pneumatics should include a circuit creation tool, a high-performance simulation tool and a comprehensive learning tutorial. This software package should be provide keeping in mind that this should be a handy tool for the trainers in Educational Training Institutes & corporate training centres to go hand in hand with the latest in the industry. With this software,</p> <ul style="list-style-type: none"> The software should be possible to simulate circuits of pneumatics, electro pneumatics, servo pneumatics, vacuum 				

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			<p>technology, sensor technology, safety and digital technologies.</p> <ul style="list-style-type: none"> Functional features of products & components can be understood The virtual cut sectional animation lets the students to know the internal details of the product & to understand the functions simultaneously Trainers can explain about the products and can educate the students at a very short period, so as to have ample time on using trainer kits to gain more practical knowledge Even a non-technical person can easily understand the concepts of pneumatic products By using the software, controlling of Electro pneumatic components should be possible through interfacing unit. <p>Basic Pneumatic – Hard copy of Text book- 1 No. Basic Pneumatic – Hard copy of Exercises book- 1 No. Electro Pneumatic – Hard copy of Text book- 1 No. Electro Pneumatic – Hard copy of Exercises book- 1 No.</p>				
4	Design, supply, installation, commissioning, testing	Set	Modular Factory Automation Lab: The Mini Factory Lab should provide a perfect platform for analyzing, understanding and	1			

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	and training of Advance Factory Automation Training kits		<p>mastering the interaction of mechanics, pneumatics, electrical engineering and control technology.</p> <p>The miniaturized production line should provide insight into communications of machines in the production environment, and their work processes. The system should consist of five stations with the functions of feeder, quality control, assembly, Mobile Robot as Transport station and material packing.</p> <p>a. Feeder station with conveyor: The Feeder station must be designed to separate jobs out of a gravity magazine and to feed the work-pieces by the means of a conveyor to the following station.</p> <p>The Feeder station may consists of:</p> <ul style="list-style-type: none"> • One Aluminium profile plate, dimensions min. 330 x 650 mm, distance of grooves 45/50 mm • One main terminal block with LED indicators and socket for input and output as per IEEE 488 standard or equivalent • Connection cable with connectors for terminal block as per IEEE 488 standard or equivalent • One gravity feed magazine for jobs with 35- or 40-mm diameter • A Plastic injection-moulded cylinder body and ejector • One double acting cylinder for job separation and cylinder position scanned electrically by sensors • One conveyor with minimum 300 mm to 350 mm, 24 V DC operated gear motor, The 				

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			<p>conveyor should transport the job to the right or left (forward or reverse)</p> <ul style="list-style-type: none"> • One Motor controller with following features should be provided: error and ready indicator, speed and current adjustment options, button for manual actuation of a DC motor forward/reverse • An optical diffuse sensor for light barrier • Two small terminal blocks with 15 pin socket to connect with Main terminal block • Pneumatic solenoid valves with cables as required • A Pneumatic maintenance unit with filter, on/off valve and pressure regulator • The station should be assembled on a mobile trolley • The system should have dedicated control panel with pushbuttons for start, stop and reset with an auto/manual key. LED indicators for start and reset. Additional 2 indicators to know status. • All cables should be neatly tied using well grow cable ties • Seven inch touch panel with ethernet switch hub – 1 No. • Wi-Fi router – 1 No. • Must be equipped with its own PLC with below specs: <ul style="list-style-type: none"> • Min. 16 DI & 16 DO • Power supply unit, AC 230 V/DC 24 V • Necessary programming software • Necessary programming cable • The kit must come with a complete set of technical documentation as well as a handling 				

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			<p>description in the structure of Installation & Commissioning, technical data and maintenance</p> <ul style="list-style-type: none"> The station should be available as virtual model in virtual learning software The station must be designed to work alone or in any combination with the other stations. <p>b. Quality control station with conveyor: The quality control station must be designed to measure the height of the jobs by the means of an analogue sensor. "Bad" jobs will be transported to a rejector slide, "good" jobs will be passed to the next station via a conveyor module. It should have a roto linear unit to learn both linear and rotary movement and possess a pneumatic gripper with 2 fingers so that users can automate statistical measurement tasks or take random samples from the process. The Quality control should have following items:</p> <ul style="list-style-type: none"> One Aluminium profile plate, dimensions min. 330 x 650 mm, distance of grooves 45/50 mm One main terminal block with LED indicators and socket for input and output as per IEEE 488 standard or equivalent Connection cable with connectors for terminal block as per IEEE 488 standard or equivalent Aluminium profile to mount roto linear unit An Analog/digital sensor to check height of job A Pneumatic cylinder with slide A 2 axis handling unit for a lifting and turning application with a 2 fingers gripper. The lifting 				

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			<p>and rotary angle should be adjustable and rotary position should be scanned by electrical sensors.</p> <ul style="list-style-type: none"> • One conveyor with minimum 300 mm to 350 mm, 24 V DC operated gear motor, The conveyor should transport the job to the right or left (forward or reverse) • One Motor controller with following features should be provided: error and ready indicator, speed and current adjustment options, button for manual actuation of a DC motor forward/reverse • An optical diffuse sensor for light barrier • Two mini terminal blocks with 15 pin socket to connect with Main terminal block • Pneumatic solenoid valves with cables as required. • A Pneumatic maintenance unit with filter, on/off valve and pressure regulator • The station should be assembled on a mobile trolley • The system should have dedicated control panel with pushbuttons for start, stop and reset with an auto/manual key. LED indicators for start and reset. Additional 2 indicators to know status. • All cables should be neatly tied using well grow cable ties • Seven inch touch panel with ethernet switch hub – 1 No. • Wi-Fi router – 1 No. • Must be equipped with its own PLC with below specs: <ul style="list-style-type: none"> o Min. 16 DI & 16 DO and 1 AI o Power supply unit, AC 230 V/DC 24 V 				

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			<ul style="list-style-type: none"> o Necessary programming software o Necessary programming cable • The kit must come with a complete set of technical documentation as well as a handling description in the structure of Installation & Commissioning, technical data and maintenance • The station should be available as virtual model in virtual learning software • The station must be designed to work alone or in any combination with the other stations. <p>C. Assembly station with conveyor: The station should be equipped with a 2-axis handling unit and conveyor. Job placed on the conveyor should be detected by a diffuse sensor. The job should be transported to the electric separator on the conveyor belt and detected by a second diffuse sensor. The handling unit picks up a cap from the slide and places it on the job. The assembled job (housing and cap) is released by the separator and transported to the end of the conveyor.</p> <p>The assembly station should have following items:</p> <ul style="list-style-type: none"> • One Aluminum profile plate, dimensions min. 330 x 650 mm, distance of grooves 45/50 mm • One main terminal block with LED indicators and socket for input and output as per IEEE 488 standard or equivalent • Connection cable with connectors for terminal block as per IEEE 488 standard or equivalent • 2 axis handling unit for Pick & Place tasks, double-acting cylinder for Y axis as pneumatic 				

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			<p>linear slide with adjustable cushioning and max. 70 mm stroke, Z axis as pneumatic linear slide with adjustable cushioning and max. 40 mm stroke</p> <ul style="list-style-type: none"> • A Vacuum generation unit with vacuum generator, vacuum sensor with integrated electronic evaluation unit and teach-in switching point, vacuum filter and a suction gripper • Pneumatic solenoid valves with cables as required. • One conveyor with minimum 300 mm to 350 mm, 24 V DC operated gear motor, The conveyor should transport the job to the right or left (forward or reverse) • One Motor controller with following features should be provided: error and ready indicator, speed and current adjustment options, button for manual actuation of a DC motor forward/reverse • An optical diffuse sensor for light barrier • Two mini terminal blocks with 15 pin socket to connect with Main terminal block • A Pneumatic maintenance unit with filter, on/off valve and pressure regulator • The station should be assembled on a mobile trolley • The system should have dedicated control panel with pushbuttons for start, stop and reset with an auto/manual key. LED indicators for start and reset. Additional 2 indicators to know status. • All cables should be neatly tied using well grow cable ties 				

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			<ul style="list-style-type: none"> • Seven inch touch panel with ethernet switch hub – 1 No. • Wi-Fi router – 1 No. • Must be equipped with its own PLC with below specs: <ul style="list-style-type: none"> o Min. 16 DI & 16 DO o Power supply unit, AC 230 V/DC 24 V o Necessary programming software o Necessary programming cable • The kit must come with a hardcopy set of technical documentation as well as a handling description in the structure of Installation & Commissioning, technical data and maintenance • The station should be available as virtual model in virtual learning software • The station must be designed to work alone or in any combination with the other stations. <p>d. Material packing station: The material packing station must be designed to pack work piece in boxes. The station should unfold and fold boxes automatically. The station should have following items:</p> <ul style="list-style-type: none"> • One Aluminium profile plate, dimensions min. 330 x 650 mm, distance of grooves 45/50 mm • One main terminal block with LED indicators and socket for input and output as per IEEE 488 standard or equivalent • Connection cable with connectors for terminal block as per IEEE 488 standard or equivalent • Two axis handling devices with stepper motor to handle jobs. X-axis stroke should be minimum 				

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			<p>500 mm and z axis stroke should be minimum 80 mm</p> <ul style="list-style-type: none"> • One conveyor with minimum 300 mm to 350 mm, 24 V DC operated gear motor, The conveyor should transport the job to the right or left (forward or reverse) • One Motor controllers with following features should be provided: error and ready indicator, speed and current adjustment options, button for manual actuation of a DC motor forward/reverse • An Optical diffuse sensors for light barrier • Two mini terminal blocks with 15 pin socket to connect with Main terminal block • Pneumatic solenoid valves with cables as required. • A Pneumatic maintenance unit with filter, on/off valve and pressure regulator • The station should be assembled on a mobile trolley • The system should have dedicated control panel with pushbuttons for start, stop and reset with an auto/manual key. LED indicators for start and reset. Additional 2 indicators to know status. • All cables should be neatly tied using well grow cable ties • Seven inch touch panel with ethernet switch hub – 1 No. • Wi-Fi router – 1 No. • Must be equipped with its own PLC with below specs: <ul style="list-style-type: none"> o Min. 24 DI & 24 DO o Power supply unit, AC 230 V/DC 24 V 				

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			<p>o Necessary programming software</p> <p>o Necessary programming cable</p> <ul style="list-style-type: none"> • The kit must come with a complete set of technical documentation as well as a handling description in the structure of Installation & Commissioning, technical data and maintenance • The station should be available as virtual model in virtual learning software • The station must be designed to work alone or in any combination with the other stations <p>e. Mobile Robot as Transport station/Automated Guided Vehicle: The mobile robotics should be able to use for research and education purpose. It should have omnidirectional drive, sensors and necessary accessories. Interfaces to the most important programming languages and systems should be possible for realizing individual applications. Mapping and navigation in laboratory environments are two of the partially autonomous functions which should be able to do with the mobile robot. It should have following items: Chassis</p> <ul style="list-style-type: none"> • Material: circular stainless steel chassis • Collision protection: rubber guard strip with integrated collision protection sensor • Sensors: 9 x IR distance sensors with measuring range from 4 cm to 40 cm • Sensors: 1 x analog inductive sensor, 2 x digital optical sensors 				

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			<ul style="list-style-type: none"> Sensors: 1 x internal 3-axis gyroscope with accelerometer Drive unit Wheels: 3 x omnidirectional wheels with diameter of 120 mm Motors: 3 x DC motors, max. 3,600 1/min, with shaft encoders and gear units Gear ratio: 32:1 <p>Camera</p> <ul style="list-style-type: none"> USB 3.0 based Stereo camera with two Cameras (Full HD resolution) infrared projector and RGB-depth Architecture with on-board processing <p>Control</p> <ul style="list-style-type: none"> Embedded PC according to COM Express specification Intel i5 - 8th generation, 2,5 GHz Clock with 4,2 GHz Turbo, 4 physical cores with Hyperthreading, Integrated UHD 630 Graphics, Memory: 8 GB RAM Disk: 64 GB SSD Operating system: Linux Ubuntu 18.04 LTS (64-bit) Motor control: microcontroller with 32-bit microprocessor and separated Ethernet interface <p>Interfaces</p> <ul style="list-style-type: none"> 1x Ethernet, 4x USB 3.0, 2x USB 2.0, 2x PCI Express Slots (Gen3 4x) Monitor: 1 x HDMI 				

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			<ul style="list-style-type: none"> • Wi-Fi Access-Point with separate Client Mode operating at 5 Ghz and 2.4 Ghz • Motor and encoder: 1 x additional motor output, 1 x additional connector for encoder <p>Virtual Mechatronics package: Consisting of:</p> <p>a. Software for Virtual Learning Environments: - The software should be industrially tested, extremely powerful platform for 3D simulation models for automation technology. The software must have different mechatronics modules, Mobile robot, Robotic module virtually. The software should control and simulate more than 100 type of simple to complex models like mechatronics, robotics, process etc., (virtually). The software should cover main areas in:</p> <ul style="list-style-type: none"> • Robot programming • PLC programming • Troubleshooting • Production planning and production control <p>It should combine the following functions in one common interface.</p> <ul style="list-style-type: none"> • 3D real-time simulation • System and production line design based on model libraries • The program offers an integrated training program and a variety of different robot models. • All the required basics for automation with robots should be possible by in built applications. • Numerous graphics and animations to explain technical terms and facts, videos on a 				

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			<p>large number of industrial applications involving robots.</p> <ul style="list-style-type: none"> • Sample programs for every model, technical documentation including instructions on processing. • Communication via OPC client/server • Simulation of the mobile robot platform • The complex model library contains 3D models of selected mechatronic stations, various belt and warehouse systems. • The virtual models can be controlled by the integrated virtual PLC via the interface unit or by an external hardware PLC. • The software should have virtual models of the offered under flexible production systems. • In manual mode, individual step movements should be made. <p>b. PLC programming software (Perpetual): The following functions and languages should be supported</p> <ul style="list-style-type: none"> • Statement list (STL) • Function diagram (FUN) • Ladder diagram (LDR) • Virtual control of mechatronics modules through virtual learning software 				
5	Application Learning Systems	Set	<p>A. Basic Pump Learning System and pump efficiency learning system (01Nos)</p> <p>The Basic-Pump Learning System shall consist of a work bench, a motor, a centrifugal pump, valves, measuring instruments, and accessories. These components shall be available to</p>	1			

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			<p>commission, maintain, assemble, and troubleshoot various pumping circuits and understand their main characteristics. Water shall circulate in a closed loop and shall naturally drain back to the tank through a drainage system.</p> <p>The Pump Efficiency Learning System shall be an add-on to the Basic-Pump Learning System. It shall consist of a digital flowmeter, a digital pressure gauge, and accessories required to assess the performance of centrifugal pumps in various contexts such as cavitation and air ingestion among others.</p> <p>A project-based pedagogical approach shall make it possible to contextualize the tasks performed by the learner. The exercises shall cover fundamental and advanced skills required in any industrial process that includes pumps.</p> <p>Learning system features:</p> <ul style="list-style-type: none"> - Fault insertion by instructors for troubleshooting exercises - Industrial-grade components for a realistic learning experience - Perforated worksurface allowing various pumping circuit configurations - Single tool to secure components on the worksurface to speed up assembly - 5S-type storage for all components in lockable drawers to keep the workspace tidy and organized - Clear pump cover for direct observation of cavitation 				

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			<ul style="list-style-type: none"> - Additional impeller to observe the effects of a change in diameter - Industrial-grade components for a realistic learning experience - Single tool to secure components on the worksurface to speed up assembly - 5S-type storage for all components in lockable drawers to keep the workspace tidy and organized <p>Learning outcomes:</p> <ul style="list-style-type: none"> - Learn the fundamentals of pump operation and their main parts. - Inspect a pumping circuit, identify its main components, and safely start it. - Understand fluid dynamics concepts that regulate the behavior of liquids inside a pump. - Perform preventive maintenance and part replacement procedures. - Detect symptoms of common pumping circuit failures and take corrective actions. - Trace, read and compare pump curves at various speeds. - Evaluate the efficiency of a pump after changing its impeller. - Compare major pump output control methods. - Describe what causes cavitation and observe its effects. - Describe what causes air ingestion and observe its effects. <p>List of Equipments:</p>				

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			<ul style="list-style-type: none"> - Connects to a 240 V, 50 Hz power outlet - 1x Workbench - 1x Motor - 1x Centrifugal Pump - 1x Ball Valve - 1x Globe Valve - 1x Manometer - 1x Rotameter - 1x Set of Accessories - 1x Magnetic-inductive Flowmeter - 1x Digital Pressure Gauge - 1x Set of Accessories <p>Technical Description: Workbench (240 V, 50 Hz) The Workbench shall consist of a perforated worksurface on which the motor(s), pump(s), measuring instruments, and accessories are installed and interconnected to build pump circuits. Water shall travel in a closed loop from the tank to the circuit and then back to the tank through a drainage system. A water tap shall be accessible to prime the pump(s).</p> <p>The Workbench shall include lockable drawers inside which each component has an outlined dedicated storage area to facilitate organization and inventory. The Workbench shall have lockable casters and shall pass through a single door of standard dimensions.</p>				

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			<p>The instrument panel shall include the controls required to start and stop a pump, change its speed, and cut power to the motor in case of an emergency.</p> <p>At the back of the Workbench shall be a series of connectors to supply power to the system itself and to the components of the system. A series of connectors shall be available to establish communication with the variable frequency drive for further experimentation.</p> <ul style="list-style-type: none"> - Perforated worksurface allowing various pumping circuit configurations - Single tool to secure components on the worksurface to speed up assembly - Water circulates in a closed loop and naturally drains back to the tank - 5S-type storage for all components in lockable drawers to keep the workspace tidy and organized - Tank can be removed easily for cleaning <p>Technical data:</p> <ul style="list-style-type: none"> - Connects to a 220-240 V, 50/60 Hz power outlet - 1x perforated worksurface - 1x tool to secure components to the worksurface - 1x water drain pan - 1x control panel with a lockable main switch, a power indicator light, a safety reset button, a 				

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			<p>variable frequency drive and an emergency stop button</p> <ul style="list-style-type: none"> - 1x water tank of at least 100 L - 1x water tap with a globe valve - 4x lockable drawers with the outline of parts to be stored traced on the bottom, or cut in foam - 2x connectors to access the analog and digital inputs and outputs of the variable frequency drive - 2x connectors to supply power to measuring instruments - 2x motor power supply connectors shielded against interference frequencies <p>Motor and Pump</p> <p>The Motor and Pump shall consist of a mounting base, a motor, a coupling, a safety guard, and a centrifugal pump. It shall be designed to be secured to the perforated worksurface. The pump shall easily be removed and replaced by optional pumps.</p> <ul style="list-style-type: none"> - Quick installation of mounting base to worksurface with single rotating knob - Single tool to remove safety guard and pump - Pump has quick disconnect cam lever couplings for easy hose and pipe connections - See-through Lexan safety guard - Flexible coupling to facilitate alignment operations <p>Technical data:</p> <ul style="list-style-type: none"> - 1x 0.75 kW, 56C frame, 3-phase motor - 1x pedestal centrifugal pump with a max. flow of 95 L/min and a max. pressure of 2 bar 				

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			<ul style="list-style-type: none"> - 1x flexible coupling with a split rubber sleeve insert - 1x mounting base with a rotating knob that locks it to the worksurface - 1x Lexan safety guard that covers the rotating parts <p>Ball Valve The Ball Valve shall be hand-operated ball valve used to allow or block the flow of water through a piping system.</p> <ul style="list-style-type: none"> - Quick connect cam lever couplings for easy hose and pipe connections - Quick connect fittings for easy pneumatic tubing connections <p>Technical data:</p> <ul style="list-style-type: none"> - 1x 2-way ball valve with hand lever and a flow rate coefficient (Kv) of approximately 60 m³/h - 1x set of male and female quick connect cam lever couplings - 2x self-sealing fittings for pneumatic tubing with 0.25 in outer diameter <p>Globe Valve The Globe Valve shall be a hand-operated globe valve used to regulate water flow or pressure in a piping system.</p> <ul style="list-style-type: none"> - Quick connect cam lever couplings for easy hose and pipe connections - Quick connect fittings for easy pneumatic tubing connections <p>Technical data:</p>				

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			<ul style="list-style-type: none"> - 1x globe valve with a flow factor (Kv) of approximately 6 m³/h - 1x set of male and female quick connect cam lever couplings - 2x self-sealing fittings for pneumatic tubing with 0.25 in outer diameter <p>Manometer The Manometer shall be used to measure pressure in a piping system.</p> <ul style="list-style-type: none"> - Tilted dial to facilitate reading - Quick installation of mounting base to worksurface with single rotating knob - Quick connect push-in fitting for easy pneumatic tubing connection <p>Technical data:</p> <ul style="list-style-type: none"> - 1x bourdon tube manometer with a range of approximately 96 to 207 kPa (scale also in PSI) - 1x push-in fitting for pneumatic tubing with 0.25 in outer diameter - 1x mounting base with a rotating knob that locks it to the worksurface <p>Rotameter The Rotameter shall be used to measure the water flow rate in a piping system.</p> <ul style="list-style-type: none"> - Quick connect cam lever couplings for easy hose and pipe connections - Quick connect push-in fitting for easy pneumatic tubing connection <p>Technical data:</p> <ul style="list-style-type: none"> - 1x rotameter with a range of approximately 4 to 64 L/min (scale also in gal/min) 				

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			<ul style="list-style-type: none"> - 1x set of male and female quick connect cam lever couplings - 1x self-sealing fittings for pneumatic tubing with 0.25 in outer diameter Set of Accessories for Single-Pump Learning System The Set of Accessories for Single-Pump Learning System shall consist of hardware and tools required to assemble and interconnect the components of the pumping circuits. Technical data: <ul style="list-style-type: none"> - 1x adjustable suction side support - 1x 180° turn adapter - 1x discharge side support - 1x suction side assembly with foot valve - 1x vertical support with sliding clamps - 1x discharge assembly - 1x clear hose - 1x hasp, 2x padlocks and 2x accident prevention tags for lockout procedures - 2 meters of 0.25 in outer diameter plastic tubing - 1x tool to lock the rotating knobs on the perforated worksurface - 1x plastic cup to prime the centrifugal pump(s) - 1x set of hexagonal keys (US customary units) - 1x 0.5 in combination wrench - 1x set of shims of various thicknesses for alignment procedures - 1x outside caliper for alignment procedures - 1x set of feeler thickness gauges for alignment procedures - 1x combination square 				

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			<ul style="list-style-type: none"> - 2x mandrels for seal removal and installation procedures - 1x one-way flow valve to control air ingestion - 3x flow-restrictions rings to introduce faults - 3x leak-inducing split rings with a thickness of 0.2 mm to introduce faults - 3x leak-inducing split rings with a thickness of 1 mm to introduce faults <p>Magnetic-inductive Flowmeter The Magnetic-inductive Flowmeter shall be used to measure the water flow rate in a piping system.</p> <ul style="list-style-type: none"> - Quick connect cam lever couplings for easy hose and pipe connections - Quick connect push-in fitting for easy pneumatic tubing connection <p>Technical data:</p> <ul style="list-style-type: none"> - 1x IO-Link magnetic-inductive flowmeter with a range of approximately 0.1 to 75 L/min and a 4 to 20 mA output - 1x set of male and female quick connect cam lever couplings - 1x self-sealing push-in fitting for pneumatic tubing with 0.25 in outer diameter <p>Digital Pressure Gauge The Digital Pressure Gauge shall be used to measure pressure in a piping system.</p> <ul style="list-style-type: none"> - Tilted dial to facilitate reading - Quick installation of mounting base to work surface with single rotating knob 				

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			<p>- Quick connect push-in fitting for easy pneumatic tubing connection</p> <p>Technical data:</p> <ul style="list-style-type: none"> - 1x digital pressure gauge with a range of approximately 0 to 690 kPa (battery operated) - 1x push-in fitting for pneumatic tubing with 0.25 in outer diameter - 1x mounting base with a rotating knob that locks it to the worksurface <p>Set of Accessories for Pump Efficiency Learning System</p> <p>The Set of Accessories for Pump Efficiency Learning System shall consist of a clear pump cover for observation of cavitation in the centrifugal pump, one additional impeller to observe the effects of a change in diameter on pump performance, a connecting cable to supply power to the Magnetic-inductive Flowmeter and plastic tubing.</p> <p>Technical data:</p> <ul style="list-style-type: none"> - 1x clear pump cover with hardware to fix it to the centrifugal pump casing - 1x centrifugal pump impeller with a diameter of approximately 80 mm - 2 m of 0.25 in outer diameter plastic tubing - 1x 1.5 m long cable with an angled socket and a straight socket <p>B. Conveyor belt training system: (05 Nos)</p> <p>This Conveyor belt training system is the basic training in the fields of automation technology</p>				

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			<p>and mechatronics. This setup modular and ergonomic learning system which allows learners to acquire essential skills in mechanical assembling, commissioning, and electrical commissioning as well as sensor and control technology. This setup should be possible to Micro level dismantle & assembly for enhancing the skills in mechanical assembling, commissioning & electrical wiring. The learning system shall be suitable for use in both single workpiece flow and goods carrier flow with pallets in future.</p> <p>The system should consist of following items at least 1 each</p> <ul style="list-style-type: none"> • Conveyor belt • DC motor • Control box with control console • Diffuse reflection sensor • Through-beam sensor • 24V DC power supply • Electrical cable set • Work piece set <p>Conveyor belt training system technical data:</p> <ul style="list-style-type: none"> • Operating voltage should be 24V DC, 4A, ≤ 100 W output power • 2 sensors for object detection • Digital Input must be 8 numbers, Digital output must be 8 numbers • Analog Input must be 2 numbers, Analog output must be 1 number, Voltage type • Electrical Connections must be with 4mm banana sockets. 				

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			<ul style="list-style-type: none"> Digital input & output signals socket should be 4mm Black colour sockets. Analog input & output signals socket should be 4mm white colour sockets. 24V & 0V socket connection must be 4mm Red & Blue sockets. Conveyor belt training system Dimension approximately 700 mm x 350 mm x 200 mm <p>Conveyor Motor Setup:</p> <ul style="list-style-type: none"> Conveyor motor setup should be with DC motor, DC driver & Belt. The DC motor relates to a universal flange. The motor can be easily replaced and converted into an AC motor in future. DC driver should be with following features: error and ready indicator, speed and current adjustment options, button for manual actuation of a DC motor forward/reverse. <p>Control Panel:</p> <ul style="list-style-type: none"> 1 x Start Button should be N/O contact type, Momentary with illuminated 1 x Stop Button should be N/C contact type, Momentary 1 x Selector switch should be N/C contact type, Toggle 1 x Reset Button should be N/O contact type, Momentary with illuminated 2 x indicator lamps <p>Electrical cable set: Cables should have the following specification:</p> <ul style="list-style-type: none"> 4mm Banana cables 				

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			<ul style="list-style-type: none"> Plugs with rigid protective sleeve and axial socket Conductor cross section: 1 mm² 800 V CAT II Rated current: 15 A Work piece set: <ul style="list-style-type: none"> Minimum 3 different colour pieces. It should be cylindrical body. Documentation: Conveyor belt training system must be supply with following manuals: <ol style="list-style-type: none"> Operating instructions Assembly instructions Electrical circuit diagram External Controls: <ul style="list-style-type: none"> In future Conveyor belt training system possible to connect with following options <ol style="list-style-type: none"> any PLC 2D with simulation software I/O sim box 				
6	Hydraulic Power Saw Machine	Set	Double Column Band saw Machine - Cutting Capacity Round & Square mm - 530, Blade Dimension mm - 6900 x 54 x 1.6, Power Req. Kw/h.p. - 5.5/7.5 - 1000 RPM, Hydraulic Drive - 0.75/1.0 - 1440 RPM , Coolant Pump - 0.12/0.16 - 2800 RPM , Apx. Dimensions LxWxHm - 3.3 x 1.4 x 2.3 , Approx. Weight(kg) - 3500	1			
7	CNC turn Centre	Set	Bed Type 45 Degrees Slant, Keyboard Type, Chuck Size 130 mm (Dia), Chuck Type Hydraulic, Maximum Turning Diameter 225 mm , Maximum Turning Length 500 mm , Center Height 200 mm, Swing over Cross Slide 225 mm	1			

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			<p>, Swing Over Bed 475 mm , Distance between Centre 550 mm, Fanuc/Siemens, Control System PLC Based Control System , Operating Software , Positioning +/-0.010 mm, Repeatability +/- 0.010 mm, Resolution 0.001 mm, Spindle Motor AC Motor, Spindle Motor Capacity 5 HP , Spindle RPM 50 to 4000 RPM, Spindle Nose Taper A 2-4, Hole Through Spindle 38 mm , Axis Motor and Drive Servo Motor with Servo Drives, X Axis Travel 155 mm , Z Axis Travel 550 mm, Ball Screw X / Z Ø25 x 5 – C3 Class , Feed Rate 0 to 5,000 mm/min , Rapid Travel 0 to 6,000 mm/min , Turret Type Automatic , Number of Stations 8 , Tool Cross Section 20 mm x 20 mm , Boring Bar Size 32 mm , Tailstock Base Stroke 200 mm , Tailstock Quill Stroke 110 mm , Tailstock Manual,, Lubrication Automatic , Coolant Automatic , FMS Compatibility Provided , Real Time Toolpath Simulation Provided , Dimension in mm 1480 x 800 x 1200 mm , Power Supply 415V, +-2% 50 Cycles, 3 Phase.</p> <p>– Spindle:</p> <ul style="list-style-type: none"> ▪ Ratings (Continues 15Min)5.0/7.0 kW or better ▪ Speed 4000RPM or better ▪ Torque not less than 136Nm ▪ Spindle NoseA2-5 ▪ Spindle Bore Diameter atleast 40MM <p>– Turret (Automatic)</p> <ul style="list-style-type: none"> ▪ Number of tool stations atleast 08 NOS. ▪ Maximum Boring Bar Dia32MM 				

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			<ul style="list-style-type: none"> ▪ Tool Cross Section (25x25) MM or equivalent ▪ Turret Indexing time 5Sec or better. – Tail Stock <ul style="list-style-type: none"> ▪ Quill Diameter atleast 80MM ▪ Quill Stroke atleast 80MM ▪ Taper of Quill MT-3 or equivalent ▪ Thrush (Adjustable) Max atleast 394KgF ▪ Tailstock Base Travel atleast 225MM – Control System Fanuc Oi-Mate TD/Siemens 810D or Latest version Accuracy as per VDI DGQ 3441 standard/ISO 230-2. – Standard Features <ul style="list-style-type: none"> ▪ Machine Bed- Slant type CI with suitable Grade and as per OEM Standards ▪ High precision Linear LM Guide ways Steel with Hardened and ground ▪ Chuck /Collect closer foot switch ▪ Chip conveyor interface ▪ Software for Visual Programming ▪ AC unit for electrical panel ▪ Tail stock with live center ▪ Work Piece Clamping ▪ Coolant system with 1kW Electro Pump, Tank capacity 100Ltrs or more ▪ Built in lighting system ▪ Graphic Tool Path display ▪ I/O interface RS-232 port and USB port ▪ Flash Card Memory facility ▪ Electronic Hand Wheel 				

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			<ul style="list-style-type: none"> Fully encapsulated housing with safety type window Fully enclosed splash guard with sight windows <p>Door safety interlock</p> <ul style="list-style-type: none"> Chip Tray Levelling screws and levelling Pads Machine Lamp atleast 06NOS spare Swarf / scrapper bin on wheels with coolant separator/drainage cock (optional) PLC controlled central lubrication system <p>– General</p> <ul style="list-style-type: none"> Warranty Atleast for Three Years with One year extended One week training (onsite post commissioning) Accuracy Chart/Geometrical Test Charts. A final accuracy test according NAS-Standard Test Part to be conducted and verified by CMM-Metrology Test Record OR equivalent specimen test chart Spares and Consumables atleast for Three Year. A detailed recommendation list must be provided with price list along with the quotation AMC Rates post warranty to be quoted separately Machine Enclosure Fully enclosed to avoid spillage and should be as per OEM standards Communication Machine should be supplied with DNC Cable (RS 232 to COM port) 				

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			<ul style="list-style-type: none"> ▪ Controller Storage Features Facility to store the programs through Pen Drive / Flash Memory Card – Documentation <ul style="list-style-type: none"> ▪ Each documentation three sets in English (along with machine delivery) ▪ Detailed layout plane and prospect to be given ▪ Operating & Programming Instruction ▪ Installation & Commissioning instruction. ▪ Quality test records & circuit Diagrams ▪ Maintenance/repair chats. ▪ Preventive maintenance Instructions. ▪ Lubrication Chat & parameter list ▪ Requirement / recommendation for power. ▪ Supply Controlled stabilizing has to be given. ▪ Detailed invoice & packing list of all item and devices and detailed prospect of machine and all other accessories enclosed in boxes. ▪ Lifting instruction mentioned in packing list 				
8	Universal Milling machine with minimum specification		Working Surface:1100 x 280mm, No. of T-Slot & Size 3/M-12, Distance between T Slots 70mm, Table Swivel $\pm 45^\circ$ Range, Longitudinal Feed (Automatic) 580mm, Longitudinal Feed By Hand 650mm, Cross Feed By Hand 225mm, Vertical Feed By Hand 400mm, Max. Safe Weight on Table 300kg, Spindle Arbor 25.4mm, Spindle Nose Taper ISO 40 . Distance From Spindle to Table Min. Max. 0-275mm, Throat Distance with Vertical head, 270mm, No. of Spindle Speed 9, Range of Spindle Speeds 60 to 1000 RPM. Feeds, No. of Feeds 6, Longitudinal	1			

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			feeds10,16,25,46,71,111 mm/Min. Drive Spindle Motor2HPTable Feed Motor0.5 HP, Coolant Pump Motor0.1 HP, Accessories - Standard Complete electrical with motors, control panel & wiring, long milling arbour with bushes, Centralized lubrication system & Chip collecting tray. Vertical attachment, DRO system, Coolant pump with spout assembly, Milling vice, Dividing head, Rotary table, Machine lamp fitting, Collet adapter, etc.				
9	Vertical Milling Machine	Nos.	Table size - 1270 x 254mm, T-Slot (No. & Width) - 3 & 16mm, Travelling: X – Y – Z - 875-400-400mm, Ram Travel - 590mm, Spindle taper - ISO-30, Quill Travel - 127mm, Distance Spindle to Table - 430mm, Distance Spindle to Column - 700mm, Spindle Speeds(LOW) - 66 to 2270RPM, Spindle Speeds(HIGH) - 130 to 4540RPM, No. of Power feeds – 3, Power down feed (per rev. of spindle) - 0.04/0.08/0.05mm/rev, Head, Movement (L to R) - 90°, Head Tilt Front & Back - 45°, Max. Table lead Capacity - 330Kgs. Motor - 3 HP, Dimensions (L x W x H) - 1670 x 1690 x 2090mm, Standard Accessories - 2 Axis DRO, Control Panel, Chip Collecting Tray, 150 mm Swivel Milling Vice, ISO-30 Adapter with set of Collets, 16 mm Key Less Drill Chuck, Micro Boring Head with Shank, 52 Pcs Clamping Kit, Coolant Pump with Fittings, Halogen Machine Lamp, Centralized Lubrication System, Set of Bellows, Tool Kit with Box & Instruction Manual, 1) Auto power feed attachment with VFD for X-Axis. 2) Auto power feed attachment with VFD for	1			

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			Y- Axis. 3) Auto power feed attachment with VFD for Z- Axis.				
10	CNC Machining Centre	Nos.	<p>Axis Motor and Drive Servo Motor with Servo Drives - X Axis 406 mm, Y Axis 305 mm , Z Axis 254 mm , Ball Screw X / Y / Z Ø25 x 5 – C3 Class , Distance between Table top and Spindle Nose 102 – 356 mm, Distance between Spindle to Column 350 mm, Feed Rate 0 to 7,600 mm/min, Rapid Travel 7,600 mm/min, Table Size 914 X 305 mm, T Slot 3 x 16 x 110 mm, Load On Table 227 Kg, Spindle Motor Capacity 7.5 HP, Motor Type AC Motor with VFD, Spindle Nose Taper BT40, Spindle RPM 100 to 6,000 RPM, Controller with Emulation of Fanuc / Siemens / Haas Control System PLC Based, Control System, Operating Software, Positioning - +/- 0.010 mm, Repeatability +/- 0.010 mm, Resolution 0.001 mm, Tool Changer Automatic, No. of Tools 10, Maximum Tool Length 70 mm, Maximum Tool Dia. 89 mm, Type of ATC Umbrella Type, Actuation Pneumatic / Hydraulic, Run Speed Control Computer Controlled with Software, Real Time tool path simulation Should Provide, Vice Type Pneumatic/ Manual, Compatible Software UG, Catia, Master CAM, EDGE CAM, Solid Edge, Bob CAD, Dimension in mm 1540 x 1200 x 1700 mm, Power Supply 415V, +-2% 50 Cycles, 3 Phase</p> <p>– Standard Accessories and services</p> <ul style="list-style-type: none"> ▪ Job Clamping Elements suitable for 60-150 mm jobs 	1			

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			<ul style="list-style-type: none"> ER Type Collet Chuck with Set of Collets (3 to 32MM) Standard Tool Holders – End Mill, Face Mill, Drill Chuck Maintenance Kit Grease Gun etc. Hydraulic Vice 150mm – with handle Machine Lamp/Light Levelling screws and levelling pads <p>– General</p> <ul style="list-style-type: none"> Warranty atleast for Three Years with additional Two paid CMC Machine operating and programming manual – 3 sets Installation, maintenance and spare part manual – 3 sets One week training (onsite post commissioning) Accuracy Chart/Geometrical Test Charts. A final accuracy test according NAS-Standard Test Part to be conducted and verified by CMM-Metrology Test Record OR equivalent specimen test chart. Spares and Consumables atleast for Three Year. A detailed recommendation list must be provided with price list along with the quotation AMC Rates post warranty to be quoted separately Machine Enclosure Fully enclosed to avoid spillage and should be as per OEM standards Communication Machine should be supplied with DNC Cable (RS 232 to COM port) 				

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			<ul style="list-style-type: none"> ▪ Controller Storage Features Facility to store the programs through Pen Drive / Flash Memory Card – Documentation <ul style="list-style-type: none"> ▪ Each documentation three sets in English (along with machine delivery) ▪ Detailed layout plane and prospect to be given ▪ Operating & Programming Instruction ▪ Installation & Commissioning instruction. ▪ Quality test records & circuit Diagrams ▪ Maintenance/repair chats. ▪ Preventive maintenance Instructions. ▪ Lubrication Chat & parameter list ▪ Requirement / recommendation for power. ▪ Supply Controlled stabilizing has to be given ▪ Detailed invoice & packing list of all item and devices and detailed prospect of machine and all other accessories enclosed in boxes. ▪ Lifting instruction mentioned in packing list 				
11	CNC milling tools to suit above machine (Sl. No. 187): to accommodate face cutter, shell end mill cutter, taper shank and parallel shank drills/cutters, Reamers. taps with suitable tool holders.	Set	<p>CNC milling tools to suit above machine (Sl. No. 187): to accommodate face cutter, shell end mill cutter, taper shank and parallel shank drills/cutters, Reamers. taps with suitable tool holders.</p> <p>1) Milling Cutter Face Mill Inserted type (Course Pitch)</p> <p>a) Ø50, Screw-on Type, No of Teeth-03, Max DoC(ap)-6MM</p> <p>b) Ø63, Screw-on Type, No of Teeth-04, Max DoC(ap)-6MM</p>	2			

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			<p>c) Ø80, Screw-on Type, No of Teeth-04, Max DoC(ap)-6MM</p> <p>d) Ø125, Screw-on Type, No of Teeth-06, Max DoC(ap)-6MM</p> <p>2) Milling Cutter Face Mill Inserted type (Fine Pitch)</p> <p>a) Ø63, Screw-on Type, No of Teeth-05, Max DoC(ap)-6MM</p> <p>b) Ø80, Screw-on Type, No of Teeth-06, Max DoC(ap)-6MM</p> <p>c) Ø125, Screw-on Type, No of Teeth-08, Max DoC(ap)-6MM</p> <p>3) Milling Cutter Face Mill Inserted type (Round Insert Type)</p> <p>a) Ø80, Screw-on Type, No of Teeth-04, Max DoC(ap)-6MM</p> <p>b) Ø100, Screw-on Type, No of Teeth-05, Max DoC(ap)-6MM</p> <p>4) Shoulder Milling Cutter Inserted type(Arbor Type)</p> <p>a) Ø63, Screw-on Type, No of Teeth-04, Max DoC(ap)-10MM</p> <p>b) Ø80, Screw-on Type, No of Teeth-05, Max DoC(ap)-10MM</p> <p>5) Milling Cutter Inserted type(Weldon Shank Type)</p> <p>a) Ø16, No of Teeth-02, OAL-85MM, Shank Dia-Ø16MM</p> <p>b) Ø20, No of Teeth-03, OAL-100MM, Shank Dia-Ø20MM</p>				

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			<p>c) Ø25, No of Teeth-04, OAL-115MM, Shank Dia-Ø25MM</p> <p>6) Milling Cutter Inserted type(Straight Shank Type)</p> <p>a) Ø12, No of Teeth-01, OAL-85MM, Shank Dia-Ø16MM</p> <p>b) Ø14, No of Teeth-01, OAL-85MM, Shank Dia-Ø16MM</p> <p>c) Ø18, No of Teeth-02, OAL-85MM, Shank Dia-Ø18MM</p> <p>d) Ø28, No of Teeth-04, OAL-115MM, Shank Dia-Ø28MM</p> <p>7) Milling Cutter Ball Nose(Straight Shank Type)</p> <p>a) Ø10,</p> <p>b) Ø12,</p> <p>c) Ø16,</p> <p>d) Ø20</p> <p>e) Ø25MM</p> <p>8) Milling Cutter-Radius End Mill (Straight Shank Type)</p> <p>a) Ø10,</p> <p>b) Ø12,</p> <p>c) Ø16,</p> <p>d) Ø20</p> <p>e) Ø25MM</p> <p>9) Chamfer Milling Cutter(Straight Shank Type)</p> <p>a) 30°,</p> <p>b) 45°,</p> <p>c) 60°</p>				

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			10) T-Slot Milling Cutter(Straight Shank Type) for T-slot Size a) 14MM b) 18MM c) 22MM 11) Spot Facing Milling Cutter(Straight Shank Type) for seat machining of Hexagon Socket head Bolts a) M10 b) M12 c) M14 d) M18 e) M24 12) Spot Facing Milling Cutter(Straight Shank Type) for seat machining of Hexagon Socket head Bolts a) M10 b) M12 c) M14 d) M18 e) M24 13) Indexable Drills (Straight Shank) for Drilling Hole, L/D ratio atleast 2, No of Teeth as per standard, Shank Dia as per standard. Drill Diameter Ranging from 17.0MM to 25.0MM with steps of 1.0MM				
12	Surface Grinding Machine	Nos	Hydraulic type with permanent magnetic chuck size:450 X 200MM, wheel balancing stand, coolant equipment. Max. table size:400 x 250mm,Max. longitudinal travel:500mm,Max. cross traverse:225mm,Max. Spindle center	1			

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			height Above table:275mm,Max. table speed:14m/min, Power Cross Traverse:1800mm/min, Auto Crossfade table each reversal:0.5 to 5mm,Leastcount of vertical feed hand wheel:0.01mm,Leastcount of micro feed: Grinding head:0.002mm,Size of Grinding Wheel(Dia x Width x Bore):200 x 13 x 31.75mm,Spindle motor:1 hp, Speed of grinding wheel:2800 rpm, Hydraulic System, Working pressure:10 kg/cm2,Parmentent Magnetic chuck:200 x 450 mm, Hydraulics motor:1.5 hp, Tank capacity:40 Liters. Standard Accessories: Permanent magnetic chuck Balancing stand & mandrel @Diamond dress or with holder @Toolkit, Lubrication pump @One - grinding wheel with flange Electric control panel, Hydraulic system, Optional Accessories: Coolant equipment @Machine lamp (230v AC) @Wheel flange unit				
13	Universal Tool and Cutter Grinding Machine	Nos	Universal Tool and Cutter Grinder Complete with Electric motor & all standard Accessories with linear guideways fitted with double spindle motor head Electric motor 2 HP 3 Ph/440 V/50 Cy/A.C./2800 RPM.V-Belts and Switch having technical specifications as follows: Centre Height: 120 mm. Swing: 275 mm. Admit between tailstock centres : 750 mm. Cross Traverse: 250 mm. Table Area: 980 x 140 mm. Longitudinal travel of table : 510 mm. Linear Guideways with 2 HP/2800 RPM. Motor head double spindle Universal Vertical Grinding wheel head Panel.	1			

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14	Interchangeable ratchet socket set	Set	Interchangeable ratchet socket set with a 12 mm driver. • Sized 10-32 mm set of 18 socket & attachments. • Material: Forged with high grade steel, and Nickel Chrome finish. • Packing: Box packing. Socket set includes 7 Pc 3/8 Drive 12 Point Socket: 3/8,7/16,1/2,9/16,5/8,11/16,3/4. 12 Pc 3/8 Drive 12 Point Sockets: Metric - 8, 9, 10, 11, 12, 13, 14, 15, 16, 17,18, and 19mm. 9 Pc 1/4 Drive Bit Set: posidrive Bit-1,2,3mm and Hex Bit-3, 4, 5, 6, 7, and 8mm 9 Pc 1/4 Drive Bit Set: Slotted Bits- 4,5,6.5 and Bits - T10, T15, T20, T30, T40 9 Pc 3/8 Drive Accessories: 2 Pc. Spark Plug Socket. 6 Point Socket: 5/8 and 13/16, 2 Pc Extension Bar-75 and 150mm. 1 Pc Universal Joint, 1 Pc Adapter. 1 Pc Full Polish Quick Release Ratchet, 1 Pc 1/4 Drive Bir Adapter 1/4 Drive Spinner Handle	1			
15	Hand reamer adjustable cover	Set	Adjustable straight shank, Hand precision ground Reamer of set 3. • Material: High Speed Steel. • Straight flutes Number: Minimum 6. • Cutting Hole Size: Diameter of 6, 8, 10, 12 ,16 mm. •Precision: Minimum H7. • Flute Length: Minimum 60-80 mm • Square End Size : Minimum 9 x 9mm. • Total Size : Minimum 130 mm	1			
16	Hand reamer taper	Set	Taper shank, precision ground Reamer of set 5. • Material: High Speed Steel. • Number of Flutes (Helical flute) 4F, 6F, 8F • Cutting Hole Size: 4 to	1			

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			10 MM, Set of 5 Reamers. Precision: Minimum H7. Flute Length Minimum 60-100 mm,				
17	Reamer parallel	No	Adjustable parallel shank, Machine precision ground Reamer of set 5. • Material: High Speed Steel. • Straight parallel flutes Number: Helical flute 4F, 6F, 8F • Cutting Hole Size: 12 to 16 mm set 5. • Precision: Minimum H7. • Flute Length : Minimum 60-100 mm • Square End Size :Minimum 12 x 12mm • Total Size: Minimum 160 mm	1			
18	Set combination	Nos	Combination Square Set Size: Minimum 300 mm. it consist of a blade (graduated steel rule) and moving heads (a square head, protractor and a centre head). • Square Head - used to set rule at 90 or 45 to the edge of the work piece. Centre head- used to locate centre of round work pieces. • Protractor Head - used to set the rule to a desired angle. • Material: Heads & Steel rule are hardened stainless steel. • Packing: single box with Product Catalogue.	2			
19	Micrometer (0-25)	Nos	Outside Micrometer with Ratchet Stop & Lock. • Range (mm) : 0-25 mm. • Accuracy: 0.01 mm. • Scale : Metric , Graduation: 0.01 mm. • Material: Measuring Faces- Carbide. • Standards Setting with Calibration certificate of inspection. • Packing –In Carry Wood / Plastic Box with Product Catalogue	3			
20	Micrometer (25-50)	Nos	Outside Micrometer with Ratchet Stop & Lock. • Range (mm): 25-50 mm. • Accuracy: 0.01 mm. • Scale: Metric, Graduation: 0.01 mm. • Material: Measuring Faces- Carbide. • Standards Setting with Calibration certificate of inspection. •	3			

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			Packing –In Carry Wood / Plastic Box with Product Catalogue				
21	Micrometer (50-75)	Nos	Outside Micrometer with Ratchet Stop & Lock. • Range (mm) : 50-75 mm. • Accuracy: 0.01 mm. • Scale : Metric , Graduation: 0.01 mm • Material: Measuring Faces- Carbide. • Standards Setting with Calibration certificate of inspection. • Packing –In Carry Wood / Plastic Box with Product Catalogue.	2			
22	Micrometer Inside (0-25)	No	Inside Micrometer: Interchangeable Rod Type with Ratchet Stop. Extension rods up to 150 mm. • Measuring Range: 0-25 mm and 25-50 mm. • Scale: Metric, Accuracy: 0.01 mm. • Material: High Grade Steel & Measuring Faces- Carbide. • Travel of Micrometer Head: Minimum 7 mm. • Total Number of Extension Rods: Minimum 02. • Standards Setting with Calibration certificate of inspection. • Packing –In Carry Wooden Box/ Hard Plastic Box with Product Catalogue.	1			
23	Vernier caliper (150MM)	Nos	Vernier calliper for Measurement in internal diameter, outside diameter, Depth, Length with Thumb lock and Bezel. • Measuring Range : 0-150 mm • Least count : 0.02 mm • Scale : Metric, Resolution (mm): 0.02 mm • Material: hardened stainless steel smooth slides. • Overall Length – Minimum 200 mm • Standards Setting with Calibration certificate of inspection. • Packing –In Carry Wooden Box/ Hard Plastic Box with Product Catalogue.	3			
24	Vernier height gauges	No.	Vernier height gauges with Optional magnifier with Carbide-tipped scribe. • Measuring Range: 0-300 mm. • Least count: 0.02 mm. • Scale:	1			

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			Metric, Resolution: 0.02 mm. • Material: hardened stainless steel. • Overall, Height – Minimum 500 mm. • Standards Setting with Calibration certificate of inspection. • Packing –In Wooden Box with Product catalogue, scribe clamp and cover. JIS B 7517: 2018, revised based on ISO/TR 14253-6: 2012 or equivalent.				
25	Vernier bevel protractor	No.	Venire bevel protractor Blade with Acute Angle Attachment.size-300mm• Main dial measures in 1-degree increments and includes a built-in magnifying glass for accurate read out. • Venire scale measures to each 5 minutes (1/12 of a degree), increasing angle precision • Measures quickly with two directions (clockwise and counterclockwise) in a 4- by 90-degree range. • Material: Stainless steel body with satin-chrome finish for corrosion resistance. • Packing –In Wooden Box with Product catalogue with accessories	1			
26	Drill Twist Taper Shank	Set	Drill Dia within h8 Tolerance Grade. Flute Length atleast 10 to 15 times of Dia. Overall Length as per standard. Shank Taper as per Morse Taper - 1. Drill Diameters Dia 6MM to Dia 12MM in step of 0.5MM. Made from HSS. Conforming to IS 5103: 1969 or latest.	1			
27	Drill chuck	No.	Heavy Duty Drill Chuck for Machine Tools, Drill Machine and Portable Tools Key Type. • Drill Chuck Size: 12mm with taper shank- MT-5. • Material : Alloy Steel	1			
28	Wheel dresser	No.	Dresser for Bench Grinding Wheels 10-1/2-Inch. Star Type Dresser with Holder Length 150 mm.	1			

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29	Machine vice (4 Inch)	No.	Machine vice –Swivel Base: used in Milling and Drilling, General machining operation. • Jaw Width: Minimum 100 mm• Opening : Minimum 100 mm• Material: Cast-iron/alloy• Colour: Hammer tone metallic blue	1			
30	Machine vice (6 Inch)	No.	Machine Vice –Swivel Base: used in Milling and Drilling, General machining operation with clamping slots. • Jaw Width Minimum 125 mm • Opening: Minimum 125 mm • Material: Cast-iron/alloy. • Colour: Hammer tone metallic blue	1			
31	Sleeve drill Morse	Set	Manufactured from case hardened Hi Tensile steel (20 MnCr5/SAE8620), fully hardened and are ground on the inside and outside. Body Hardness 54-58 HRC. Permanent marking of size on the tang. Sizes (Morse Taper) MT 2-1, MT 3-1, MT 3-2, MT 4-1, MT 4-2, MT 5-1, MT 5-2. Overall Length as per standard.	1			
32	Bench Vice	Nos.	Plain Screw Type with Polished Anvil & Double Ribs. • Vice Rotating: 360o Rotating Heavy Duty Base. • Jaw Width: Minimum 120 mm. • Opening : Minimum 150 mm. • Material: Heavy Duty Cast Iron Body. • The hardened Carbon Steel Jaws Plates are renewable and interchangeable. Each jaw plate is hardened as per ISI & Drawn Steel Handle. • Colour: Hammer tone metallic blue	20			
33	Leg Vice	Nos.	Cast Iron Lion Leg Vice, Up To 150 Mm, Size: 4 Inch (h). Fixed Base Type. Jaw Width 150 mm or equivalent. with straight and heat-treated jaws. Width of Jaws 100MM or equivalent. Opening of Jaws 100MM or better.	2			
34	Dial Test Indicator	No.	Dial Test Indicator Should have 10mm Travel Gauge with Magnetic Stand & Standard 0.01 mm	1			

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			graduation dial gages having a bezel with an outside diameter of 57 mm, The bezel clamp and lifting lever (optional) can be attached to either the right or left side, These parts can be easily installed and removed without tools, Watertight assembly of bezel and crystal as well as the use of an O-ring prevents water or oil penetration, The stem and spindle are made of high-strength quench-hardened stainless steel suitable for heavy-duty use, A carbide contact point is used, The grand gear is made of stainless steel with high resistance to wear and deformation, Application of an anti-reactive and hard surface coating improves scale visibility along with scratch and chemical resistance, Magnetic Stands clamp to iron or steel surfaces with a strong magnetic force that is switchable ON or OFF to allow easy mounting and dismounting, Vertical/horizontal mounting holes and bushes are available for attaching dial test indicators and dial indicators.				
35	Lathe Tools HSS Tipped set	No.	Turing-RH, Facing-RH, Cranked Finishing-RH, Broad Turning-ST, Cranked Facing-RH, Cranked Turning-RH, Cranked Turing Tool-LH, Parting Off Tool-RH are of 80mm Length & Boring Tool & Boring Facing is 125mm Length	2			
36	Lathe Tools Bit HSS	Nos	TOOLBIT BLANK SQ 3/16"X4" H SS, TOOLBIT BLANK SQ 5/16"X3" H SS, TOOLBIT BLANK SQ 5/16"X4" H SS, TOOLBIT BLANK SQ 5/16"X6" H SS	13			
37	Counter Boring and Counter sinking Tool	Set	Counter Sink Tools 4-flute HSS type. Straight shank Flute 90° Parallel Shank. Shank tolerance	2			

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			h8 or better. Size ranging from 8MM to 14MM. Guide/Extrusion Pin Diameter Tolerance: -0.05~ 0 mm or better. Counter Sinker Drill Bit Set: Should be made from High-Speed Steel 82 Degree, 5 Flute 6mm Hex Shank HSS Countersink Drill Bit Set suitable for Metal in Sizes ranging from 1/4" 3/8" 1/2" 5/8" 3/4" with Bit Case. Coated with Gold/Black Oxide finish to make it corrosion resistance.				
38	Arm strong type bit holder RH	Nos	Arm strong type bit holder RH	2			
39	Arm strong type bit holder LH	Nos	Arm strong type bit holder LH	2			
40	Arm strong type bit holder Straight	Nos	Arm strong type bit holder Straight	2			
41	Straight edge	Nos	Made from high quality spring steel. Straight & Knife Edges are fully ground and hand scraped for a perfectly flat surface. Retain shape & accuracy. Straight Edges Type. These are flat on one side and have a bevel on the other. Length atleast 900MM (36-Inch) x Width 61MM(2-13/32Inch) x Thickness 10MM(3/8Inch). Flatness of Edges should be within 21Microns, Parallelism of Faces not less than 40Microns	2			
42	Surface Plate	Nos	Made from close grained Granite having uniform color and texture having hardness 5.6 to 7 on Moh's scale, free from flaws, fissures and large inclusions of softer minerals Black Granite with Stand 755 – 775MM Height. Size 500(W)x500(D)x130(H) MM or equivalent. Grade–1. with 7-micron or better Flatness tolerances. Hardness Sclera scope over 90 or	2			

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			better. With Metallic threaded inserts, Metallic T-slots, Plates with two or four ledges. Rexene cover provided for top working surface with standard size plates. NABL Certification Flatness determination done by grid method as per clause 4.3.1 of IS: 12937 or equivalent. With Fabricated Frame / Cupboard type / Cast Iron column type stand with leveling screws. Surface plate Conforming to IS: 2285 or latest equivalent. 400 mm x 400mm grade Material : high carbon steel With steel frame for surface plate. With NABL Accreditation as per ISO/IEC 17025-2017				
43	Marking table	No	Conforming to IS:2285 from close grained plain cast iron conforming to Grade FG:220 of IS: 210 (equivalent to GG20/ FT20 / 30-A). Castings stress relieved to relieve internal stresses. Suitable Column type C. I. Floor stands or M.S. Fabricated stands with leveling screws. With grid slots for location, tapped holes and T-slots provided on working surface. C.I. Surface tables should be made from one piece casting to the size (1500 x 1500) MM, Flatness accuracy should be Grade-0. Flatness of Top surface should be 7 µm or better, as per DIN-876 or IS: 2295-1991. Height of the Surface Plate should be between 850-900 mm or equivalent from the floor after mounting the Surface Plate on the Stand. To be supplied with Cover. Surface Plate to be supplied with Calibration Certificate Traceable to National Standard from NABL Accredited Calibration Laboratory as per ISO/IEC-17025-2017 provisions with NABL	1			

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44	Universal scribing block	Nos	Base Dimensions atleast 80x63MM, Spindle Length 300 mm with extra 225 mm. Scriber Length atleast 175MM spindle fully hardened and ground base. The scriber tip is hardened to 55-60 HRC. With machined Vee groove in the base to be used conveniently on curved surfaces. With two retractable pins allow the gauge to be located against the edge of a surface plate or T-slot for linear work. Hole 1/4" (6.35 mm) in the spring-loaded scriber holder allows a dial indicator to be attached conveniently making the gauge useful for checking flatness, parallelism, heights, depths etc.	2			
45	V- block pair	Nos	Made from close grained cast iron. Blocks are precisely ground and machined square and parallel. Vee's are 90° centered in true. Squareness and Parallelism of Vee Grooves with respect to base Within 0.0012" (30 microns). Length atleast 100MM x Width (Vee) 56MM x Height atleast 65MM x Block Width not less than 40MM. conforming to IS-2949-74, Steel V-Blocks to be supplied with Calibration certificate traceable to National Standard from NABL Accredited Calibration Laboratory as per ISO/IEC-17025-2017 provisions	2			
46	Square adjustable	Nos	Adjustable Precision Square 150 x 100 MM.	2			
47	Angle plate	Nos	Size 350 x 200 x 250 MM or equivalent. Should be made from close-grained Cast-Iron Casting conforming to Grade 1 FG- 220 of IS-210. Casting duly stress relieved. Accuracy: for Squareness, Flatness & Parallelism is within 10 microns per 100 mm. Made of high duty close	2			

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			grained cast iron to IS: 210 Grade 20. Ribbed to minimize distortion and are seasoned as recommended in IS 2554: 1971. Edges parallel and square within 0.05 mm per 300 mm T-slots parallel to the edges within 0.05 mm per 300 mm. Sizes L x B x H (in mm) 300 x 200 x 250MM Size of T-slots (mm) 14MM. No. of T-slots x Pitch of T-slots (mm) should be 4 x 63MM or equivalent.				
48	Spirit Level	No.	Measuring Type: Horizontal & Vertical • Base length: 300-500 mm • Accuracy-0.1 mm/Meter, • Base width: 25 -30mm, • Height: Maximum 25-30 mm, • Bubble opening: Minimum 80 mm x 8 mm (length x width) • Effective length of bubble: 20-25mm. • Least count of graduation: maximum 2 mm. • Packaging: in wooden box.	1			
49	Portable hand drill (electric)	Nos	Capacity not less than 6MM, Powerful 350 W motor for tough applications. Speed (No Load condition) atleast 4000RPM. Accurate drilling of small diameters. Ball bearing construction. Rated Power Input 350W, No load Speed atleast 4000RPM, Power output 136W or better, Weight without Cable 1.1KGs, Rated speed 0 – 3116 RPM or better. Rated Torque 123Nm. Drill Spindle connecting thread 3/8". Chuck Capacity 0.5MM – 6.5MM. Drilling range: Drilling dia. in aluminium 6MM, Drilling dia. in wood 15MM, Drilling dia. in steel.6.5MM. Scope Supply includes - Set of Drill up to 6MM, With Chuck key.	2			
50	Twist Drill straight shank	Set	Twist drills size: 1.5 mm to 12 mm in step of 0.5 mm. • Straight shank type. • L/D ratio: Minimum	1			

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			3.5 to 5.5 MM • Material: high quality of high-speed steel material. Packed in a Wooden Box.				
51	Twist Drill straight shank	Set.	Twist drills size: 9 mm to 15 mm in step of 0.5/1.0 mm. • Straight shank type. • L/D ratio: Minimum 3.5 to 5.5 MM • Material: high quality of high-speed steel material. Packed in a Wooden Box.	1			
52	Taps and dies complete set	No	37 PCS Metric Tap & Die Set. Bar Type Tap Wrench 2 mm - 6.3 mm. Bar Type Tap Wrench 4.9 mm - 12 mm. Die Holders for Round Dies of dia. 1-Inch. Die Holders for Round Dies of dia. 1.1/2 Die Holders for Round Dies of dia. 2-Inch. 8 Round Dies: 6mm, 8mm, 10mm, 12mm, 4mm, 16mm, 18mm, 20mm. 8 Metric Tap Sets: 6mm, 8mm, 10mm, 12mm, 14mm, 16mm, 18mm, 20mm	1			
53	Taps and dies complete set	No	A boxed set Taps and Dies complete set-in box 5, 6, 8, 10 & 12 mm set of 5.and dies complete with tap wrench, Die holder and Screwdriver. • Material: High Carbon Steel. • Tap and Die has size and starting side permanently marked on each	1			
54	Taps and dies complete set in box	No	37 PCS Metric Tap & Die Set. Bar Type Tap Wrench 2 mm - 6.3 mm. Bar Type Tap Wrench 4.9 mm - 12 mm. Die Holders for Round Dies of dia. 1-Inch. Die Holders for Round Dies of dia. 1.1/2 Die Holders for Round Dies of dia. 2-Inch. 8 Round Dies: 6mm, 8mm, 10mm, 12mm, 4mm, 16mm, 18mm, 20mm. 8 Metric Tap Sets: 6mm, 8mm, 10mm, 12mm, 14mm, 16mm, 18mm, 20mm	1			
55	Pipe wrench	No	Total Length of Pipe wrench – Minimum 400mm. • Precision machined jaw teeth with appropriate	1			

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			teeth angle enables positive grip on the job. Should be made from Drop forged from Chrome Molybdenum Steel. Should conform to equivalent IS standard.				
56	Pipe wrench	No	Total Length of Pipe wrench – Minimum 450mm (18 Inch). • Precision machined jaw teeth with appropriate teeth angle enables positive grip on the job. Should be made from Drop forged from Chrome Molybdenum Steel. Should conform to equivalent IS standard.	1			
57	Pipe vice	Nos	Type-Pipe Vice for Pipe work fitting with long jaws without any crushing or bending. • Size to pipe be hold: Minimum 5-100 mm. • Open solid Type. • Material: Frame & Jaws are made of shock resisting cast iron. • Main screw is made of high-grade steel. • Required Accessories - for fastening to bench or post. • Colour: Hammer tone metallic blue	2			
58	Adjustable pipe tap set BSP with die set cover pipe size	No.	Adjustable pipe tap set BSP with die set cover pipe • Size -1" or 3/4", with Spare Chaser	1			
59	Wheel dresser(1for4units)	No.	Star Dresser with Holder Length 150 mm, diamond point	1			
60	Machine vice	No	Machine vice –Swivel Base: used in Milling and Drilling, General machining operation. • Jaw Width : Minimum 100 mm • Opening : Minimum 100 mm • Material: Cast-iron/alloy • Colour: Hammer tone metallic blue.	1			
61	Machine vice	No	Machine Vice –Swivel Base: used in Milling and Drilling, General machining operation with clamping slots. • Jaw Width Minimum 125 mm •	1			

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			Opening: Minimum 125 mm • Material: Cast-iron/alloy. • Colour: Hammer tone metallic blue				
62	Sleeve drill (Morse Taper)	Set	Manufactured from case hardened Hi Tensile steel (20 MnCr5/SAE8620), fully hardened and are ground on the inside and outside. Body Hardness 54-58 HRC. Permanent marking of size on the tang. Sizes (Morse Taper) MT 2-1, MT 3-1, MT 3-2, MT 4-1, MT 4-2, MT 5-1, MT 5-2. Overall Length as per standard	1			
63	Bench Vice	Nos	Bench Vice type: Plain Screw Type with Polished Anvil & Double Ribs. • Vice Rotating: 360o Rotating Heavy Duty Base. • Jaw Width: Minimum 120 mm. • Opening : Minimum 150 mm. • Material: Heavy Duty Cast Iron Body. • The hardened Carbon Steel Jaws Plates are renewable and interchangeable. Each jaw plate is hardened as per ISI & Drawn Steel Handle. • Colour: Hammer tone metallic blue	25			
64	Leg Vice	Nos	Cast Iron Lion Leg Vice, Up To 150 Mm, Size: 4 Inch (h). Fixed Base Type. Jaw Width 150 mm or equivalent. with straight and heat-treated jaws. Width of Jaws 100MM or equivalent. Opening of Jaws 100MM or better.	2			
65	Gauge slip as Johnson metric set	Set	Slip Gauge as Johnson Metric Set- Minimum 87 Pieces set . • Slip Gauge Type - Grade 0 • Size: 0.5mm-100 mm. • Range: 3mm to 100 mm. • Unit – Metric. • Material: Alloy Steel. • Packing: In Wooden Box, foam inside package.	1			
66	Carbide wear block	Each	Carbide Metric Wear Block Class 1, 2 Wear Blocks, Grade 1, Carbide, Size 1mm. Accuracy as per EN ISO 3650 or equivalent.	2			

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67	Gauge snaps	Set	Snap Type Go and Not Go• Single or Double Ended Gauge and Adjustable Snap Gauge. • Material: Aluminium or Tool Steel • Thickness: 25 mm to 50 mm by 5 mm step• Total no of Piece: Minimum -06 pieces. • Packing: In Wooden Box, foam inside package, Should be confirm to relevant I.S., B.S. and DIN standards	1			
68	Gauge plug single ended	Set	GO Single Ended Plain Plug Gauge, 05 to 55 by 5 mm set of 11pcs.	1			
69	Gauge Telescopic	No	Telescopic gauge Should have size 8-150mm, Set of 6 Gauges per Set for Quick Measurement of Inside Diameter of Holes and Width of Slot, Satin Chrome finish.	1			
70	Dial Vernier Caliper	No	Vernier Caliper with Dial Size to measure: 0-200 mm • Least Count :0.05 mm. • Material: Hardened stainless steel in satin chrome finish. • Scale with deep etched graduations in tenths of mm Large, clear dial gauge • Convenient to use lock by thumb roller. • Suitable for inside, outside , depth measurements • Dial Gauge has adjustable bezel for zero setting • Packing with calibration certificate and product catalogue	1			
71	Vernier Micrometer	No	Standard Vernier Depth gauge for Depth Measurement Should have size 0-50mm, Resolution 0.001mm Maximum Permissible Error, EMPE, is the term (notation) used in JIS B 7517: 2018, revised based on ISO/TR 14253-6: 2012.	1			
72	Depth Micrometer	No	Standard Vernier Depth gauge for Depth Measurement Should have size 0-100mm, Resolution 0.001mm Maximum Permissible Error, EMPE, is the term (notation) used in JIS B	1			

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			7517: 2018, revised based on ISO/TR 14253-6: 2012.				
73	Vernier Caliper	No	Vernier Caliper Should Have 300mm Length and 0.02 Graduation, Maximum Permissible error +/- .03mm, Partial Measuring Face Contact Error, EMPE and Shift Error, SMPE are terms (notations) used in JIS B 7507: 2016, revised based on ISO 13385-1: 2011. Partial Surface Contact Error, EMPE and Shift Error, SMPE are terms (notations) used in ISO 13385-1:2019.	1			
74	Comparators Stand with Dial Indicator	No	Dial Test Indicator Should have 10mm Travel Gauge with Magnetic Stand & Standard 0.01 mm graduation dial gages having a bezel with an outside diameter of 57 mm, The bezel clamp and lifting lever (optional) can be attached to either the right or left side, These parts can be easily installed and removed without tools, Watertight assembly of bezel and crystal as well as the use of an O-ring prevents water or oil penetration, The stem and spindle are made of high-strength quench-hardened stainless steel suitable for heavy-duty use, A carbide contact point is used, The grand gear is made of stainless steel with high resistance to wear and deformation.	1			
75	Surface Roughness comparison plates	No	Surface plate with stand for measure the roughness value between – N1 to N12 grade as per IS: 2285. • Surface Plates use to precision reference for spotting, tool making, inspection of parts, checking accuracy of other surfaces and for many types of gauging and marking out operations. • Material: Made from good quality close grained high duty Cast Iron. • Size of	1			

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			Surface Plate: up to 630 x 630 with Mild Steel handles for lifting. • Top surface offered with hand-scraped finish. • Stands with proper levelling of plate and top surface at a convenient working height of approx. 850 to 900 mm from the floor. • Rexene cover provided for top working surface and edges				
76	Digital Vernier Caliper	No	Vernier calliper for Measurement in internal diameter, outside diameter, Depth, Length, Steps with Thumb lock and Bezel. • Type: Digital Type Vernier calliper. • Measure range-0-200 mm. • Least count: 0.001 mm. • Mode Measurement: mm & inch. • Zero setting at any position. • Absolute measurement and comparison measurement conversion at any position. • Material: stainless steel / steel. All the measuring faces are specially hardened and fine ground. • Packing –In Carry Wood / Plastic Box with Product Catalogue.	1			
77	Digital Outside Micrometer	No	Outside Micrometer with Ratchet Stop & Lock. • Type: Digital type. • Range (mm) : 0-25 mm. • Least count: 0.001 mm. • Scale : Metric , Graduation: 0.01 mm. • Material: Measuring Faces- Carbide. • Standards Setting with Calibration certificate of inspection. • Packing –In Carry Wood / Plastic Box with Product Catalogue	1			
78	Digital Dial Test Indicator	No	Dial Test Indicator Should have 10mm Travel Gauge with Magnetic Stand & Standard 0.01 mm graduation dial gages having a bezel with an outside diameter of 57 mm, The bezel clamp and lifting lever (optional) can be attached to either the right or left side, These parts can be easily	1			

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			installed and removed without tools, Watertight assembly of bezel and crystal as well as the use of an O-ring prevents water or oil penetration, The stem and spindle are made of high-strength quench-hardened stainless steel suitable for heavy-duty use, A carbide contact point is used, The grand gear is made of stainless steel with high resistance to wear and deformation, Application of an anti-reflective and hard surface coating improves scale visibility along with scratch and chemical resistance, Magnetic Stands clamp to iron or steel surfaces with a strong magnetic force that is switchable ON or OFF to allow easy mounting and dismounting, Vertical/horizontal mounting holes and bushes are available for attaching dial test indicators and dial indicators.				
79	Hardness Tester	Nos	Rockwell hardness Testing machine must be equipped with digital display micrometer eyepiece and data computing systems accurate to 0.01 um, only gently touch, can directly show the Brinell or Vickers hardness value. The industry LCD screen can be visual display hardness value, hardness unit, conversion hardness, testing force, indenter type, the required minimum thickness, load time, measurement times, and the test process is intuitive and clear, built-in printer must be take print out measured times, Hardness 01 Accompanying equipped with data transfer software, through RS232 interface will	1			

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			<p>transfer host measurement data to the computer to edit and save.</p> <p>Rockwell scale Test force: -HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK, HRL, HRM, HRR 60Kg (588N), 100Kg (980N), 150Kg (1471N), Brinell scale Test force: - BW2.5/31.25, HBW2.5/62.5, HBW5/62.5, HBW2.5/187.5 ,31.25Kg (306.5N), 62.5Kg (612.9N), 187.5Kg (1839N),</p> <p>Vickers scale Test force: -HV30, HV60, HV100 30Kg (294.2N), 60kg (588N), 100Kg (980N). Conversion Scale: -HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, Initial test force: -10Kg (98.0N), LCD Screen size: -118 x 99mm, Resolution ratio: -0.1HR, Amplification of microscope: -37.5X, 75X,</p> <p>Hardness Value Range: -Rockwell: 20~88HRA 20~100HRB 20~70HRC, Brinell: 8~650HB Vickers: 8~3000 HV, Hardness value read: -Big digital LCD, Loading method: -Fully automatic (load, dwell, unload), Specimen maximum height allowed Rockwell: 170mm Brinell, Vickers: 140mm Throat depth allowed: -130mm, Dwell time: - 1~99S (each step should be 1 second), Power supply: - AC220V + 5%, 50~60 Hz,</p> <p>Instrument size and weight: - 460×160×660mm (L×W×H), 85kg,</p> <p>Data output: -Built-in printer Executive Standard: - GB/T230.2, GB/T231.2, GB/T4340.2, ASTM E18, ISO 6508, JJG112, JJG150, JISB-7734.</p>				

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80	Flat tongs	Nos	300mm	4			
81	Round tongs	Nos	300mm	2			
82	Straight snips	Nos	Aviation Snips straight cut-300mm. • Drop forged, heat treated steel and polished jaws. • Lever lock for safe storage. • Cuts Straight and Wide Curves Size: Minimum 300 mm. • Material: Metal, Comfortable double colour coated cushion plastic handle to reduce fatigue	6			
83	Bend snips	Nos	Snip bent 250 mm. • Stainless Steel Snip designed Cuts straight or wide curves	6			
84	Solder bit /soldering iron hatchet type	Nos	Wattage - 100W, Input - 230Vac, Temperature - 500°C max, Wire - 3 core /1.4 mtrs Length, Bit supplied - BN100S8.	4			
85	Anvil	Nos	50kg double horn CI with hardened plate	2			
86	Swage block	No	A swage block (or swager block) is a large, heavy block of cast iron or steel used in smithing, with variously-sized holes in its face and usually with forms on the sides. size 400 x 400 mm	1			
87	Trammel	Nos	Steel beam Trammel- Beam size 10.5-inch maximum circumscribing range 18-inch, maximum dividing range 9 inch	2			
88	Hand groover	Each	Hand Groover, 4mm & 5mm Set	1			
89	Portable forge with hand blower	No	Forge Furnace with Hand Blower with Handle, 450mm	1			
90	Gas cutting torch with different noses	No	ANM type nozzle for Oxy-Acetylene, Nozzle length-90 mm-non-turbulent and smooth gas flow / flame. Nozzle length-75 mm in 2 Seat (IM) types., PNM type Nozzle for Oxy. - LPG, Swaged nozzle ends – Faster cutting due to, concentrated and forceful gas flow / flame	1			

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91	Arc welding table with positioner	No	1200x1200mm arc welding table with firebricks. Size: 50X50X6 mm MS angle frame, top with 5mm MS sheet with fire bricks and positioner	2			
92	Gas welding table with fire bricks	No	1200x1200mm gas welding table with firebricks. Size: 50X50X6 mm MS angle frame, top with 5 mm MS sheet with fire bricks	1			
93	Grinding attachment for Lathe	Set	Grinding attachment for both internal and external Grinding operation compatible for Lathe Machine. To be supplied with all necessary accessories/attachment with Grinding wheels.	1			
94	Dial Test Indicator	No.	Dial Test Indicator Should have 10mm Travel Gauge with Magnetic Stand & Standard 0.01 mm graduation dial gages having a bezel with an outside diameter of 57 mm, The bezel clamp and lifting lever (optional) can be attached to either the right or left side, These parts can be easily installed and removed without tools, Watertight assembly of bezel and crystal as well as the use of an O-ring prevents water or oil penetration, The stem and spindle are made of high-strength quench-hardened stainless steel suitable for heavy-duty use, A carbide contact point is used, The grand gear is made of stainless steel with high resistance to wear and deformation, Application of an anti-reflective and hard surface coating improves scale visibility along with scratch and chemical resistance, Magnetic Stands clamp to iron or steel surfaces with a strong magnetic force that is switchable ON or OFF to allow easy mounting and dismounting, Vertical/horizontal mounting holes and bushes	1			

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			are available for attaching dial test indicators and dial indicators.				
95	Sine bar	No.	Sine bar -used for Precision measurement, setting of angles. • Sine bar size-125mm. It consists of a hardened, precision ground body with two precision ground cylinders fixed at the ends. • Material : high quality alloy steel• Accuracy for Squareness, Flatness & Parallelism is within 0.005mm. • Hardness - 60 ± 2 HRc & Tempered. • Packing: In Wooden Box, foam inside package, With NABL Accreditation as per ISO/IEC 17025-2017	1			
96	Sine bar	No	Sine bar -used for Precision measurement, setting of angles. • Sine bar size-300mm. It consists of a hardened, precision ground body with two precision ground cylinders fixed at the ends. • Material : high quality alloy steel• Accuracy for Squareness, Flatness & Parallelism is within 0.005mm. • Hardness - 60 ± 2 HRc & Tempered. • Packing: In Wooden Box, foam inside package, With NABL Accreditation as per ISO/IEC 17025-2017	1			
97	Micron suitable to measure minimum 300mm distance. (Optional)	No.	Thickness Gauge with USB Interface. Measures Coatings: Non-magnetic (e.g. paint, zinc) on steel; Insulated (e.g. paint, anodized coatings) on non-ferrous metals. Measuring Range: 0 ~ 2000µm Auto-rotation Screen: 0°, 90°, 180°, 270°. TFT LCD display. Auto Power-off. Low Battery Indication. Interface – USB. 3-Colour LED Indication. Measuring of Ferrous Material, Non-Ferrous Material. Power Source - Battery	1			

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			Operated, Battery Type – Alkaline, Battery Size AA, No of Batteries 2. Measuring Range: Ferrous: 0 to 2000µm, Non Ferrous: 0 to 2000µm. Tolerance Range - Ferrous: $\pm 2\% \pm 2\mu\text{m}$, Non Ferrous: $\pm 2\% \pm 2\mu\text{m}$. Repeatability - Ferrous: $(\pm 1\% \pm 1)\mu\text{m}$, Non Ferrous: $(\pm 1\% \pm 1)\mu\text{m}$. Low Range Precision - Ferrous: 0.1µm, Non Ferrous: 0.1µm. Minimum Curvature Radius - Ferrous: 1.5mm, Non-Ferrous: 3mm. Diameter of Minimum Area - Ferrous: 7mm, Non Ferrous: 5mm. Basic Critical Thickness - Ferrous: 0.5mm, Non Ferrous: 0.3mm. Auto-rotation Screen - 0°, 180°, 270°, 90°. Stability Test - Stability Test, Continuous Test, SSPC Mode. Certifications - GB/T 4956-1985, GB/T 4957-1985, JB/T 8393-1996, JJG 818-93, JJG 889-95				
98	Surface roughness tester	No.	Surface Roughness Tester with Data Management Software. Measuring range X axis 16.0 mm, Detector Range - 360 µm (-200 µm to +160 µm), Measuring force/Stylus tip shape - 4 mN/5 µm R 90°, Applicable standards JIS 1982/JIS 1994/JIS 2001/ISO 1997/ANSI/VDA, Assessed profile Primary profile, Roughness profile, DF profile, Roughness motif profile, Waviness motif profile. The color LCD can display calculation results, measurement conditions, surface roughness waveforms. Built-in rechargeable battery.	1			
99	Air conditioner	Nos.	Air Conditioner • 2-ton split AC, • 5 star Energy rating, • Auto restart, • Anti-bacteria filter, • Remote control, • Self-diagnosis, sleep mode	10			

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			and dual • temperature display • 5 year warranty on compressor, • Compatible CVT/ Voltage Stabilizer for AC. • All accessories for indoor and outdoor unit mounting and connectivity • Warranty. At least for two years with One year extended. • AMC Rates post warranty to be quoted separately. Wi-Fi enabled Split AC with Twin Cool Inverter compressor: Variable Speed Inverter Compressor which adjusts power depending on heat load. Star Rating: 5 Star. ISEER: 4.7 or equivalent				
100	Drilling Machine pillar type with drill chuck & key.	Nos.	Drilling Machine Specification – • Type: Pillar type, swivel table motorized with chuck & key. • Drilling machine with standard accessories and complete set of HSS Drills & suitable reduction sleeves & DRILL chucks. • Drilling capacity 0-20 mm. • Speed: 8-10 minimum. • Spindle Nose Taper: MT 5 • Range of Speed: up to 4000 rpm. • Spindle Center to Column: 200 -225min. • Spindle Travel: 100-150 min • Size of Square Table: Maximum 300 x 300 mm. • Base Size : 450 x 300 mm(Minimum) • Max Distance From Spindle to Base : 400 min • Working Surface of Table : 210 x 210 mm (Minimum) • Working Surface of Base Plate : 300 x 250(minimum) • Power Required for Electric motor: 0.5 HP/1500rpm Tool & Tooling System: - Drills, Chuck & Sleeves. • 5 Set of Straight Shank twist HSS Drills: 1 – 13 mm. Minimum 14 nos. • Material: high speed steel. • 3 set of Collet Chuck Straight Shank with set of collect range of 1 mm to 14 mm Step of 1 mm. • Material: high quality steel • 5 Set of Taper Shank	2			

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			Twist Drills MT5 Range of -14- 20 mm. • 3 Set of Reduction sleeves : for drill 13 TO 20 mm • Grade are hardened & ground (inside & outside) • 3 set Adapts MT5 Morse taper shanks (inside & outside) Recommended Spares and consumables For three years. • Two Sets of Operating, Maintenance and Spare part manual				
101	Pedestal Grinder Double End type.	Nos.	Pedestal Bench Grinding Machine, double ended with wheel (one fine & one rough) . • SPECIFICATION: - Heavy duty, C.I. body double ended pedestal grinder. • Wheel Size (Dia. x Width x Bore) –Minimum 250mm x 25-50 mm x 25-40 mm. • Grinding machine duly fitted with Minimum 2 H.P.-3Phase-415V, 1500 rpm, with rotary switch, • a pair of grinding wheels of size (one rough & one smooth) • A pair of eye shield for Spark protection. • A pair of C.I. brackets as tool rests, duly mounted on M.S. Fabricated pedestal stand. • With diamond wheel dresser & maintenance kit. • Twist drill grinding attachment. • Spares/Consumables for three years	2			
102	Power Saw Machine Stroke length 160 mm	No.	Double Column Bandsaw Machine - Cutting Capacity Round & Square mm - 530, Blade Dimension mm - 6900 x 54 x 1.6, Power Req. Kw/h.p. - 5.5/7.5 - 1000 RPM, Hydraulic Drive - 0.75/1.0 - 1440 RPM , Coolant Pump - 0.12/0.16 - 2800 RPM , Apx. Dimensions LxWxHm - 3.3 x 1.4 x 2.3 , Approx. Weight(kg) - 3500	1			
103	Fly Press 4T capacity	No.	Bed - 6"x10" Throat Depth -3" Bad to Ram - 6" Hole in Ram -6"	1			

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			Stock -1" Wheel Dia -12" 3 ton with motor switch v belt				
104	Arc welding transformer-single phase,200 Amps. (with cable, electrode holder and all other accessories)	Nos.	<p>Open-circuit voltage: more than 91 V, 65A / 100% ED [Hybrid] 100A / 50% ED [Hybrid] @ Welding current / Duty cycle [10min/40°C], Operating voltage- 0-91 Volt, Battery capacity: 396 Wh, Battery Type -Lithium Iron Phosphate battery (LiFePO4) with low self-discharge & no memory effect, Battery Charger Output-voltage range-30 - 58 V DC. Battery Charger Weight - approx. 2 kg, Test symbol: CE.</p> <p>1. Battery type i-ion and must be in-built in the Power source and Capacity of battery should be 400± 20 Wh.</p> <p>2. Power source can be charged simultaneously with welding operation.</p> <p>3. Shall have following features in SMAW: Electrode welding, Hot Start, Soft Start, Anti-stick, Dynamic Arc force.</p> <p>4. Should have welding current ≥ 100 A at 25% duty cycle and ≥ 40 A at 100% duty cycle in Shielded metal arc welding.</p> <p>5. Rapid charging within 30 minutes option must be available. Battery capacity should be 7.5 AH</p> <p>6. Should have digitally display of all the parameters to be set.</p> <p>7. Should have welding current range in between 10-140 A for Shielded metal arc welding and in between 3-150 A for TIG welding.</p>	2			

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			<p>8. Should have charging current in between 8 A to 12 A in normal mode and in between 15 A to 20 A in quick mode.</p> <p>9. Should have Open Circuit Voltage (OCV) in between 80 -100 V.</p> <p>10. Should have machine weight \leq 12 kg, battery weight \leq 5 kg and charger weight \leq 2 kg.</p> <p>11. Should have minimum capacity to weld fifteen to sixteen electrodes of 2.5 mm diameter or five to six electrodes of 3.2 mm diameter in battery mode.</p> <p>12. Should have protection Class IP-23 and charger shall have protection Class IP-43S.</p> <p>13. Should be equipped with system to monitor uniform charging & discharging and ensure uniform voltage & temperature of all battery cell.</p> <p>14. Should have display of battery capacity exhausted & over temperature.</p> <p>15. Should have display in case of polarity reversal, supply cable faulty, over / under voltage.</p> <p>16. Should have safety feature to switch off the device after 5 minutes of inactivity to conserve the battery and after 3 seconds in the event of under voltage.</p> <p>17. Should provide the details of battery make, model and capacity.</p> <p>18. Should have battery nominal voltage in between 50 -60 V.</p> <p>19. Should have battery standard charging time 50 minutes and battery rapid charging time \leq 30 minutes.</p>				

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			<p>20. Should have input voltage of charger in between 220 - 240 V and 50 Hz frequency of charger.</p> <p>21. Should have efficiency 85% and machine dimension (l x w x h)- 435 x 160 x 310 mm</p> <p>22. Battery Power Pack & Simulator as asked below should be of same Brand.</p> <p>Scope of supply –</p> <p>Including charger, Ground Cables 16mm² 3m, electrode holder 16mm² 4m, hand shield, slag hammer, wire brush, welding gloves.</p>				
105	Oxy-acetylene gas welding plant with all accessories	Set	<p>Rubber Hose: Size: Diameter 8MM, as per BIS, meets or exceed IS 447 / BS EN 559. Oxygen hose with invariably green/blue color. Inner tube: Gas-Oil resistant synthetic rubber.</p> <p>Reinforcement: Single layer braid high tensile steel wire hose. Outer cover: Weather / Ozone/ Abrasion resistant synthetic rubber. Temperature range: (-) 20° C to (+) 70° C. Burst Pressure 70 bar or better.</p> <p>Two Stage Gas Pressure Regulator, ISI Certified, Forged Brass, Leak Proof with Accurate Meter Reading</p> <p>Cutting torch and handle are ready for multiple gas options; Oxy-Acetylene, high strength alloy, heavy duty stainless steel and durable brass.</p> <p>Cutting torch kit includes a 1-1-101 cutting tips, it can cut up to 3/4-inch steel, but you can buy some different sizes cutting tips, such as 8-1-101, which can cut up to 12 inch steel.</p> <p>Gas cylinders 7m3. Standard</p>	1			

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106	TIG Welding Machine	Set	<p>Technical Specifications- Power Sources: Input Voltage Tolerance Limit: + 15% / - 15%, Current Range TIG Mode: 3 -300 AMPS, Standardized Working Voltage Range TIG-10.1 - 22 Volt, Power Factor more than - 0.97, Open Circuit Voltage: 80- 89 Volt, Duty Cycle :35% at 300 Amp and 100% at 200 Amp @ 10 Minutes ,40-degree cent, Primary Continuous Power at 100% Duty Cycle: 6 KVA, Weight: Less Than 30 KG, Dimensions L x W x H :570/260/440 MM or less, Mark of conformity: S, CE, Degree of Protection: IP 23 or better Cooling Unit Max. delivery rate: 3.5l / min, Weight (without coolant)-09 K.G., Max pump pressure-4 Bar, Coolant :5L container, frost protection up to - 10°C AC/DC 300 AMPS MOSFET/IGBT Microprocessor control Inverter and Energy- saving inverter technology Based TIG Welding Machine with standard and necessary Accessories and Suitable for Aluminum, M.S., M.S. Alloys, S.S., Copper, Bronze etc. Machine should have features to reduced current - Intermediate lowering of the welding current to prevent any local overheating of the base material (4-step mode). Machine Should be Digital Inverter Technology based on MOSFET/IGBT with transistor module switching frequency up to:70Khz</p>	1			

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			<p>Machine should have Automatic Tungsten Electrode Cap shaping and cap overloading function.</p> <p>Machine should Can save Up to 100 common jobs and Automatic gas post-flow (dep. on welding current)</p> <p>Change the welding power using the up/ down key (+/-) and LED can be used to light up the welding area.</p> <p>The torch body can be turned through 360°for an optimum welding position every time.</p> <p>Machine should be Maximum Decibel Value of Noise (Noise Modulation through waveform adjustment present) for operation at 300 Amp is 80dbA or less.</p> <p>Machine should have Digital signal processor (DSP) regulates and controls the welding process.</p> <p>The tacking function should be available for the TIG DC welding process pulsed welding current is present that makes the weld pool run together better when two parts are being tacked.</p> <p>Machine should be Electrode overload indicator, Reverse Polarity Ignition (RPI) Facility, Switchover facility between touchdown and HF ignition.</p> <p>Thermostat controlled by Fan / Over temperature protection and Generator Should Compatible</p> <p>Welding current range in TIG welding process should start from 3 - 300 AMPS.</p> <p>Machine should be Special 4-Step Mode for Aluminum welding applications.</p>				

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			Machine should have Triangular, Sinusoidal, and rectangular waveform in AC TIG Process. Machine should be Operating Mode - (2-step mode / 4-step mode, TAC (programmed tack-welding), AC / DC, Special 4-step mode, TIG-Pulse, Spot welding. Digital indication of (Run-status, Operating mode, Welding voltage, Welding Amperage (Actual Value), Hold Function, over temperature, Service Code, Main Voltage Monitoring etc. Scope of supply: Power Source 300 AMPS AC/DC, Water Cooling Unit, Welding Torch Water Cooled 4 Meter, Earth Clamp with 4-meter copper cable, 5-meter Input Cable.				
107	Co-ordinate Measuring Machine having accuracy of 5	Nos	Accuracy: E0, MPE from: (1,7+0,3L/100) µm, Width: 1,082, Depth: 1191 mm, Height: 2,185, Mass: 515.0 E0,MPE: With SP25M: (1,7+4L/1000) µm; With TP200: (1,9+4L/1000) µm; With TP20: (2,2+4L/1000) µm; L = measured length [mm], Max. drive speed: 519 mm/s (3-axis), 3D Acceleration: 2,309 mm/s ² , Air supply: Pressure = 0,4, Power supply report: UN 38.3 Test Summary Report, Range: 500 x 400 x 400, Loading Weight: 180, Loading Height: 545, Digital step: 0.1 µm.	1			
108	Workbench	Nos	Load 500KGs minimum. Overall dimension 1500(L) x 600(D) x 850(H) MM. Wooden Top Veneer Polish 50MM or more. Tool storage cabinet 575x725x400 MM, Five Shelves with Drawer height 1x45, 3x90, 1x180 MM. Wooden	6			

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			Top Grey laminate - 1.1 mm thick. Grouting Provision. Fitted with atleast four Nos. 150MM (Jaw Opening) Bench Vice. Powder Coating RAL 5015. Steel cupboard 180x 90x 45cm				
109	Special tools and equipment	Nos	<ul style="list-style-type: none"> • Combination square set with center finder 300mm scale 2 nos. • Portable drilling machine 6mm capacity 2 nos. • Portable drilling machine 10 mm capacity with rechargeable battery and screw driver function and speed/torque setting 2 nos • Portable drilling machine 10mm capacity 2 nos • Angle Grinder 800 watts 100 mm wheel 2 nos • C clamp set 200 mm, 150 mm and 100 mm 2 nos • Bearing Puller 3 legs 250 mm adjustable 2 nos • Hacksaw frame , 200 mm 300 mm adjustable 2 nos • Digital Multi Meter 3 ½ digit with battery 2 nos • Permanent magnetic chuck 200x300mm with magnetic lever. 2 nos • Magnetic v block 100 x 95 x 70 mm 2 nos • Precision screw less machine grinding vice 100mm 2 nos. • Tilting and swiveling machine vice 150mm 1 no • Rotary table for milling operation 250mm dia circular table with indexing handle 1 no 	1			

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			<ul style="list-style-type: none"> • Digimatic height gauge 0.001mm, 600mm height measurement, Zero set function, Origin set function, Origin return function, Preset function, Direction switching function, Hold function, Error alarm function, Output function, coarse / Fine motion switching function, Battery voltage drop alarm function. • Portable polishing machine with all attachments and wheels and grinding pins. 				
110	Tool holder to suit the CNC machine (Sl. No. 183) for Turning, Threading (external & internal), Grooving (external & internal), Parting off operations, Drilling, Boring, Undercutting (with 20 inserts for each operation)	Nos	Carbide 20 inserts each for Turning, Threading (external & internal), Grooving (external & internal), Parting off operations, Drilling, Boring, under cutting with suitable tool holders. <ul style="list-style-type: none"> ▪ OD Turning Tool Holders atleast 5-set ▪ Threading (External) Tool Holders atleast 3-Set ▪ Threading (Internal) Ø25 - Ø50MM atleast 2-set ▪ Boring Tool Holder atleast 02 each for outer Dia 12 to 32MM ▪ Face Grooving Tool Holder 50MM atleast 2-set ▪ OD Grooving Tool holder atleast 2-set ▪ Parting Tool (4 mm and 3 mm width) atleast 2-set ▪ Precision Drill Chuck (key less) atleast 4NOS. ▪ 3-Jaw Chuck -160MM with set of soft and hard jaws ▪ Soft Jaws atleast 12-Set 	2			

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			<ul style="list-style-type: none"> ▪ Hard Jaws atleast 6-Set Turning Tools & Holders 1) External Turning, Facing (Roughing& Finishing) <ul style="list-style-type: none"> a) PCLNL/R 2525M12 b) PCLNL/R 2020M12 c) PCLNL/R 2525M09 d) DCLNR/L 2525M12(Double Clamp Type) e) DCLNR/L 2020K12(Double Clamp Type) f)PCBNR/L 2525M12(External Turning) g) PTGNR/L 2020K16(External Turning) h) PTGNR/L 2525M16(External Turning) i) PWLNR/L 2525M06 2) External Turning, Copying (Roughing & Finishing) <ul style="list-style-type: none"> a) PDJNR/L 2020K15 b) PDJNR/L 2525M15 c) DDJNR/L 2020K11(Double Clamp Type) d) DDJNR/L 2525M11(Double Clamp Type) e) MTJNR/L 2020K16N f) MTJNR/L 2525M16N g) PVJNR/L 2525M16(Finishing) h) PVJNR/L 2020K16 i) SDJCR/L 2525M11 j) PRDCN 2525M12 3) Facing and Copying <ul style="list-style-type: none"> a) PDHNR/L 2525M15 b) PDHNR/L 2020K15 c) PVPNR/L 2525M16 d) PRGCR/L 2525M16 4) External Turning & Chamfering <ul style="list-style-type: none"> a) PSTNR/L 2020K12 				

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			b) PSTNR/L 2525M12 c) PSDNN 2525M12 d) PSDNN 2020K12 e) MTENN 2020K16N 5) External Turning, Facing& Chamfering a) PSSNR/L 2020K12 b) PSSNR/L 2525M12 6) External Grooving a) GTAHR/L 1212-20S b) GTBHR/L 1010-30S c) GTCHR/L 1010-30S 7) External Cut-off a) CTAHR/L 1616-120 8) External Threading a) TTAHR/L 1616 b) TTAHR/L 1212 c) TTAHR/L 1010 d) MMTER 2525M16-C e) MMTER 2020K16-C 9) Internal Boring a) FSCLP 1210L-08A b) FSCLP 1412R/L-08A c) FSCLP 1816R/L-09A d) FSDQC 1612R/L-07A e) FSDQC 2520R/L-11A f) FSVPB 2012R/L-11A g) A16MPWLNR/L06 10) Internal Threading a) MMTIR 1316AK11-SP15 b) MMTIR 1516AM11-SP15 c) MMTIR 2420AQ22-SP15				

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			11) Indexable Drills (L/D ratio atleast 2) with Insert, Drill diameter ranging from Ø12 to Ø32MM in step of 1.0MM 12) Parallel Shank Drills with Coating, Drill depth atleast 3-times of the diameter, drill diameter ranging from 0.5MM to 13.0MM in the step of 0.5MM 13) Parallel Shank, HSS Twist drills Ø3 to Ø13MM 14) Drill Chuck 0-13MM with taper shank with Key 15) Centre drill A-1 to A-5 16) Knurling tools (set of 3) straight and diamond 17) Carbide tipped Brazed tools of different sizes & shapes as per ISO standard, Shank size 12 x 12, 16 x 16 and 20 x 20, for Lathe Operations – Facing, Step Turning, Grooving, Parting-off, OD turning, Boring, Thread cutting, Chamfering.				
111	worktable to mount small machines	Nos	Load 500KGs minimum. Overall dimension 1500(L) x 600(D) x 850(H) MM. Wooden Top Veneer Polish 50MM or more. Tool storage cabinet 575x725x400 MM, Five Shelves with Drawer height 1x45, 3x90, 1x180 MM. Wooden Top Grey laminate - 1.1 mm thick. Grouting Provision. Powder Coating RAL 5015. Steel cupboard 180x 90x 45cm	6			
112	worktable to mount small machines	Nos	Load 500KGs minimum. Overall dimension 1500(L) x 600(D) x 850(H) MM. Wooden Top Veneer Polish 50MM or more. Tool storage cabinet 575x725x400 MM, Five Shelves with Drawer height 1x45, 3x90, 1x180 MM. Wooden	2			

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			Top Grey laminate - 1.1 mm thick. Grouting Provision. Powder Coating RAL 5015. Steel cupboard 180x 90x 45cm				
113	worktable to mount small machines	Nos	Load 500KGs minimum. Overall dimension 1500(L) x 600(D) x 850(H) MM. Wooden Top Veneer Polish 50MM or more. Tool storage cabinet 575x725x400 MM, Five Shelves with Drawer height 1x45, 3x90, 1x180 MM. Wooden Top Grey laminate - 1.1 mm thick. Grouting Provision. Powder Coating RAL 5015. Steel cupboard 180x 90x 45cm	2			
114	work benches with bench vices	Nos.	Load 500KGs minimum. Overall dimension 1500(L) x 600(D) x 850(H) MM. Wooden Top Veneer Polish 50MM or more. Tool storage cabinet 575x725x400 MM, Five Shelves with Drawer height 1x45, 3x90, 1x180 MM. Wooden Top Grey laminate - 1.1 mm thick. Grouting Provision. Fitted with atleast Two Nos. 150MM (Jaw Opening) Bench Vice. Powder Coating RAL 5015. Steel cupboard 180x 90x 45cm	1			
115	DG Set (Power Backup)	Nos.	Silent Diesel Generator Set – Rating:- Power 40 kVA, 3 Phase. Fuel Consumption (at 100% Load): 9.9 Ltr/hr. Fuel Tank Capacity: 100 Liters. Dry Weight (Kg): 1270. Frequency:50 Hz. Compliance: Latest Government Emission Norms CPCB II. Best in class fuel efficiency with O2E technology. Engine Well-designed air handling system with Dry type, Replaceable paper element air cleaner with restriction indicator	1			

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			<p>— Air to air aftercooling</p> <p>— Optimized turbocharger for increased altitude capabilities</p> <p>Full flow spin on lube oil filter</p> <p>First fill of lube oil and coolant</p> <p>Electrical starter motor with soft start engagement feature</p> <p>Battery charging alternator</p> <p>1 x 12 V DC battery</p> <p>Alternator Brushless Type, Screen protected, Revolving field, Self excited alternator conforming to IS/IEC 60034-1</p> <p>Dedicated winding specially designed for 1 phase operation</p> <p>Better motor starting capability</p> <p>Best in class efficiency</p> <p>Compact design with sealed bearings for longer life and lesser maintenance</p> <p>f Impregnation on all wound components for better mechanical strength</p> <p>Control Panel</p> <p>Control panel is manufactured with 14/16-gauge CRCA sheet and is powder coated for weather-proof and long-lasting finish.</p> <p>The control panel consists of the following parts:</p> <p>PS0500 Controller</p> <p>Aluminium bus bars with suitable capacity with incoming /outgoing terminals</p> <p>Indicating lamps for 'Load ON' and 'Set Running'</p> <p>Instrument fuses duly wired and ferruled</p>				

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			Circuit breakers of suitable rating with overload and short circuit protections Silencer Critical grade silencer suitably optimized to meet stringent sound emission standards laid down by MoEF / CPCB Mounting Arrangement Engine and alternator are mounted on a common Fabricated base frame with AVM pads. Base frame with integral fuel tank is provided with drain plug, air vent, inlet and outlet connection, level indicator and provision for protection.				
116	Engineering Drawing Trainees Tool Kit	Set	Drawing instrument box, French curve set of 3, Premium A3 Drawing Board made of high quality acrylic material provides great durability and stable drawing surface Comes with 2 parallel rulers, 2 corner clips, quick release paper clamp on both edges to secure it all around T-square straightedge slides up and down to the bottom of the sheet with full accuracy and stability Great for practicing drawing skills to make drawing process more accurate and stable Design for student, engineer, artist and architect easy and comfortable working. Material: acrylic. Size: 57x37cm/22.4x14.7 inches.	26			
117	Air conditioning for classroom	Nos.	Wi-Fi Split AC with Twin Cool Inverter compressor: Variable Speed Inverter Compressor which adjusts power depending on heat load. It is most energy efficient and has lowest-noise operation Seamless hands-free	1			

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			operation and Voice Control with Alexa and Google Assistant Capacity: 1.5 Ton - Suitable for medium sized rooms (121 to 180 sq ft) Equipped with Powerful and Dry Mode for different cooling needs Energy Star Rating: 5 Star Annual Power Consumption: 840.75 kWh ISEER: 4.7 The star rating is as per BEE guidelines on or before 30th June 2022. Manufacturer Warranty: 2 Year with 3 Year CMC Comprehensive 5 years on PCB 10 years on Compressor Copper Condenser Coil with Shield Blu Technology: Anti Corrosion Blue Fin Technology Enhances durability in high humidity coastal areas.				
118	Air Conditioner	Nos	Wi-Fi Split AC with Twin Cool Inverter compressor: Variable Speed Inverter Compressor which adjusts power depending on heat load. It is most energy efficient and has lowest-noise operation Seamless hands-free operation and Voice Control with Alexa and Google Assistant Capacity: 2 Ton - Suitable for medium sized rooms (121 to 180 sq ft) Equipped with Powerful and Dry Mode for different cooling needs Energy Star Rating: 5 Star Annual Power Consumption: 840.75 kWh ISEER: 4.7 The star rating is as per BEE guidelines on or before 30th June 2022. Copper Condenser Coil with Shield Blu Technology: Anti Corrosion Blue Fin Technology Enhances durability in high humidity coastal	4			

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			areas. Installation of air conditioner in bidder's scope.				
119	Try Square	Nos	Blade Size: 150 mm long graduated in mm scale. • Material - Blade & Stock made of Stainless steel. • Made of finest quality ground Stainless steel with heavy thick stock • Blade is hardened and ground for straightness and parallelism Squares are accurate both inside and outside. • Try square supplied in wooden box.	26			
120	Straight scribe	Nos	Double-ended, hardened steel engineer's scribe for marking or scoring metal. One end straight and another end 90°. • Scribe size :150 mm double point • Type: Straight & Knurled at center position Material high carbon steel, is a hand tool	26			
121	Flat File	Nos	Flat File 250MM, 2nd Cut Length, made from Carbon Steel with rubber grip/Wooden handle. Generally Conforming to IS. Hardness 60 to 64 HRC or equivalent	26			
122	Flat File	Nos	Flat File 250MM, 2nd Cut Smooth Length, made from Carbon Steel with rubber grip/Wooden handle. Generally Conforming to IS. Hardness 60 to 64 HRC or equivalent	26			
123	Hacksaw frame fixed	Nos	350mm Length, Solid frame hacksaw for cutting depth, Cuts to perfection at 45/90 degree angles, Holes in base of the tool for fastening and storage, Injection molded meter box, Scale for measurement on the meter box	26			
124	Outside caliper	Nos	Fully hardened and tempered joints, spring, washers and divider points. Divider points are hardened 50-55 HRC for increased wear resistance. With Quick Adjustment Nut. Contact ends fully rounded to give accurate dimensions.	5			

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			Caliper size and capacity is 6"(150mm). Confirming to IS : 4084- 1964 or equivalent.				
125	Inside caliper	Nos	Fully hardened and tempered joints, spring, washers and divider points Inside divider caliper 150MM(6-Inch). Points fully hardened/tempered. Adjustment screw centrally located; legs are well balanced with uniform tension. Made from High carbon steel legs heat treated. Caliper size and capacity is 6"(150mm). Confirming to IS: 4084-1964 or equivalent	5			
126	Caliper	Nos	Caliper Size :150 mm, • Type: hermaphrodite, Firm-joint , Leg Style: Flat Leg • Material : high carbon steel & measuring point hardened up to 50-55 HRC	5			
127	Divider	Nos	Fully hardened and tempered joints, spring, washers and divider points. Divider points are hardened 50-55 HRC for increased wear resistance. With Quick Adjustment Nut. Contact ends fully rounded to give accurate dimensions. The legs pivot on a roller and are tensioned by bow spring. Range not less than 200MM(8-Inch) mm. Confirming to IS : 4084- 1964 or equivalent	5			
128	Screwdriver	Nos	3.5 x 0.5 mm, 150mm Long. The blade should made from high grade Silicon - Manganese steel. Should gives spring effect also, differently hardened and tempered to resist wear, bending and meet high torque requirement. Hardness on tip 55 to 58 HRc. The blade tip should magnetised to lift small screw etc. from confined spaces or to hold the screw in position.	5			
129	Cold Chisel Flat	Nos	16 mm Cutting Edge, 150mm Long, Drop forged from high grade carbon steel. Hardened &	5			

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			tempered to ensure best combination of hardness & toughness. Hardness : 55 - 57 HRC on cutting edge. 35 - 45 HRC on striking portion. The body should rounded for comfortable grip. Cutting edges are ground accurately to appropriate angle for metal cutting.				
130	Ball pein Hammer	Nos	500 gm, with Handle, Ball Pein, Partially Hardened up to 55 - 58 HRC on Striking surfaces needed as functional requirements for all types of hammers. Drop forged from high grade carbon steel. Phosphate and painted to provide anti-rusting properties. Handle made from high quality axle wood and fixed firmly to hammer head.	13			
131	Ball pein Hammer	Nos	200 gm, with Handle, Ball Pein, Partially Hardened up to 55 - 58 HRC on Striking surfaces needed as functional requirements for all types of hammers. Drop forged from high grade carbon steel. Phosphate and painted to provide anti-rusting properties. Handle made from high quality axle wood and fixed firmly to hammer head.	13			
132	Half round File	Nos	150mm, 2nd Cut, Half Round, File should be made up of High carbon steel for sharpness retention Bi-Material handle reduces vibrations, Ergonomic, slip resistant design for increased comfort.	13			
133	Dot punch	Nos	Length 100mm or equivalent. Should Made of high grade Chrome steel accurately machined and heat treated. Deep knurling on the body ensures firm grip. It has Black phosphate finish..	13			
134	Warding File	Nos	150mm, with Wooden / Plastic Handle. File should be made up of High carbon steel for sharpness retention Bi-Material handle reduces	4			

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			vibrations, Ergonomic, slip resistant design for increased comfort.				
135	Knife edge File	Nos	150mm, with Wooden / Plastic Handle. File should be made up of High carbon steel for sharpness retention Bi-Material handle reduces vibrations, Ergonomic, slip resistant design for increased comfort.	4			
136	File saw	Nos	150mm, with Wooden / Plastic Handle. File should be made up of High carbon steel for sharpness retention Bi-Material handle reduces vibrations, Ergonomic, slip resistant design for increased comfort.	4			
137	File feather edge	Nos	150mm, with Wooden / Plastic Handle. File should be made up of High carbon steel for sharpness retention Bi-Material handle reduces vibrations, Ergonomic, slip resistant design for increased comfort.	4			
138	File triangular	Nos	150mm Triangular, Smooth. File should be made up of High carbon steel for sharpness retention Bi-Material handle reduces vibrations, Ergonomic, slip resistant design for increased comfort.	2			
139	File round	Set	200mm, 2nd Cut, File should be made up of High carbon steel for sharpness retention Bi-Material handle reduces vibrations, Ergonomic, slip resistant design for increased comfort.	8			
140	File square	Nos	Square 150mm, 2nd Cut. File should be made up of High carbon steel for sharpness retention Bi-Material handle reduces vibrations, Ergonomic, slip resistant design for increased comfort.	4			
141	File square	Nos	Square 250mm, 2nd Cut. File should be made up of High carbon steel for sharpness retention Bi-	4			

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			Material handle reduces vibrations, Ergonomic, slip resistant design for increased comfort.				
142	Feeler gauge	Set	Gauge Feeler/thickness-0.05 mm to 0.3 mm by 0.05 and 0.4 mm to 1 mm by 0.1 mm gauges 13leaves. • Quantity of leaves -Minimum30 blades. • Size-Blades length 100-150 mm. • Material: Alloy and Steel.	1			
143	File triangular	Nos	200mm, 2nd Cut, Triangular. File should be made up of High carbon steel for sharpness retention Bi-Material handle reduces vibrations, Ergonomic, slip resistant design for increased comfort.	6			
144	File Swiss type needle	Set	Needle File Set 12PC, File should be made up of High carbon steel for sharpness retention Bi-Material handle reduces vibrations, Ergonomic, slip resistant design for increased comfort.	2			
145	File half round	Nos.	250mm, 2nd Cut. Half Round. File should be made up of High carbon steel for sharpness retention Bi-Material handle reduces vibrations, Ergonomic, slip resistant design for increased comfort.	6			
146	File round	Nos	300mm, Bastard, Round. File should be made up of High carbon steel for sharpness retention Bi-Material handle reduces vibrations, Ergonomic, slip resistant design for increased comfort.	4			
147	File Card	Nos	File Card 200 mm with metallic bristles to clean second cut and fine files	6			
148	Oil Can	Nos	Capacity atleast 500ml. Equipped with an easy-to-hold handle and metal trigger. Easy to use trigger to adjust the rate of flow. Wesco type Design. Nozzle is Steel & Chrome Plated. Body Powder coat finish with Red Color. Hose Length	2			

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			atleast 125MM (5-Inch) Oil Can pressure feed 500 mg. made high carbon steel				
149	Plier combination	Nos	Combination Plier Forged from Chrome Vanadium Steel, and differentially heat treated. Fully insulated with injection molded plastic material sleeves. Fine serrations diagonally opposed fully. Polished head or Black phosphate. Overall Length at least 200MM. Generally Conforming to IS 6149-1984 Grade II or equivalent.	2			
150	Spanner Metric—worth D.E. set of 10 pcs.	Nos	Forged from Chrome Vanadium Steel. Double Ended metric spanner. Size ranging from 6x7, 8x9, 10x11, 12x13, 14x15, 16x17, 18x19, 20x22, 21x23, 24x27, 25x28, 30x32 MM. Length as per standard, ranging from 95MM to 250MM depending upon size. Chrome plated for corrosion protection with heads sets at 15 degree. Conforming to IS 2028-2004 or equivalent. Should be made of high quality chrome vanadium steel or carbon steel .	6			
151	Spanner adjustable	Set	Forged with high grade steel, and heat treated. Left hand thumb screw movement. Precision marked scale indicate correct jaw opening. Bright polished Nickel Chrome finish and Black Phosphate finish. With soft grip to provide comfortable gripping. Conforming to IS 6149-1984 Grade II. Length not less than 350MM (12-Inch). Range of Opening atleast 32MM.	2			
152	Box spanner	Set	Upset forged from high grade manganese steel. Heat treated. With bright finish in Nickle Chrome or black phosphate finish. Size (in MM) - 6 x7, 8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17, 18 x 19, 20	1			

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			x 22. Tommy Bar Dia 12 x 250mm. Conforming to IS 2030-1989 or equivalent.				
153	Clamp toolmaker	Nos	Clamp toolmaker Hold work together during drilling, tapping and other machining operations. • Size: 50 mm (2"), 75 mm (3") in set of 2 (both Side) • Material: Made of hardened steel or cast iron	2			
154	Clamp "C"(100MM)	Nos	Body hot drop forged from high grade steel. All parts fully heat treated and black Phosphated. Length atleast 100mm. Throat Length (Clamping Gap) not less than 40MM. Conforming to IS 9181-1988 or equivalent.	2			
155	Clamp "C"(200MM)	Nos	Body hot drop forged from high grade steel. All parts fully heat treated and black Phosphated. Length atleast 200mm. Throat Length (Clamping Gap) not less than 40MM. Conforming to IS 9181-1988 or equivalent	2			
156	Scraper flat	Nos	Engineers flat square end scraper size : Minimum Width x Length : 15 mm X 150 mm • Overall length including handle: Minimum 250 mm. • Surface Material: Chrome-plated - vanadium steel. • Material grip handle: Wood	6			
157	Scraper 3 corner	Nos	Engineers triangular scraper size : Minimum Width x Length : 15 mm X 150 mm. • Overall length including handle: Minimum 250 mm. • Surface Material: Chrome-plated -vanadium steel. • Material grip handle: Wood	6			
158	Scraper half round	Nos	Engineers half round scraper size : Minimum Width x Length : 15 mm X 150 mm• Overall length including handle: Minimum 250 mm• Surface Material: Chrome-plated -vanadium steel• Material grip handle: Wood	6			

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159	Chisel cold	each	Cross-cut Type. Differential heat treatment for cutting edge, and striking end. Drop forged from high grade carbon steel. Hardened & tempered & toughness. Hardness : 55 - 57 HRC on cutting edge. 35 - 45 HRC on striking portion. Cutting edges are ground accurately to appropriate angle for metal cutting. With Rubber Grip. Conforming to IS 5663-1970. Overall Length not less than 150MM(6-Inch). Cutting edge width not less than 10MM.	6			
160	Chisel cold	Nos	Flat Type. Differential heat treatment for cutting edge, and striking end. Drop forged from high grade carbon steel. Hardened & tempered & toughness. Hardness : 55 - 57 HRC on cutting edge. 35 - 45 HRC on striking portion. Cutting edges are ground accurately to appropriate angle for metal cutting. With Rubber Grip. Conforming to IS 5663-1970. Overall Length not less than 200MM(8-Inch). Cutting edge width not less than 20MM.	6			
161	Chisel cold	Nos	Chisel cold Material: High quality octagonal chrome vanadium steel and shank is powder coated. • Cutting Edge: half round shape accurately ground & polished. • Width of Cutting edge: 9 mm. • Total Length: minimum 100 mm. Packing: single piece in a carton box	6			
162	Extractor stud	Nos	Broken Damaged Screw Bolt Stud Extractor Set extractor-out. • Set suitable for a range of sizes from 3 - 25mm. • Minimum -08 Piece of Extractor Set. Should be made from Chrome-Mo Hi-Grade Steel.	2			

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163	Screw pitch gauge	No.	Screw pitch Gauge combined 52 Leaves Metric 60 0.25 to 6mm & Whitworth 55 Degree 4 to 62 TPI. Screw Pitch Gauge Whitworth Type. • Standard Gage angle- 60° • Unit: Metric. • Range Screw pitch: 0.25 To 6.0 mm (0.25 , 0.35, 0.4, 0.45, 0.5, 0.6, 0.7, 0.75, 0.8, 1, 1.25, 1.5, 1.75, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6 mm) • Material: Stainless Steel	1			
164	Wire gauge, metric standard	No.	Standard Wire Gauge Round 1-32 SWG	1			
165	Wing Compass	Nos.	Divider With Quadrant should have size 250mm & 300mm. Heavy duty with cast alloy Body. Hardened steel Points.	2			
166	Hand Hammer	Nos	3.6Kg (approx.) Heavy Duty Sledgehammer, Length: 16-Inch or equivalent. Ergonomic rubber grip handle. Handle should be made up of 6 spring steel. Head should be differentially Heat Treated, Hardness 55-58HRc or equivalent. Overall Length. 16-Inch or equivalent. Generally Conforming to IS 841-1983 or equivalent.	2			
167	Radius Gauges (Assorted)	Nos	Radius Gauge Should have Radius measurement range: 1 to 7mm. Blades contains 17 nos. With folding blades for measuring radii on concave and convex surfaces. 180 Degree Arc, 34 Pairs Radius Gauges. The leaves have 1-3mm by 0.25mm and 3.5-7mm by 0.5mm ranges.	13			
168	Engineers Try Square (Knife wedge)	Set	Engineering Square Plain Should have 150mm length ,150mm width & 1mm thickness	1			
169	Rule steel(300MM)	Nos	"Easy-Read" Metric/Inch Stainless Steel Etched Ruler with zero at the edge. Top edge is graduated in 1 mm increments with numbers in	4			

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			mm value. Bottom edge is graduated in inches. First two inches are in 1/32" increments, third inch is in 1/64" increments, the rest of the ruler is graduated in 1/16" increments. Rulers have conversion tables on the reverse. Conforming to IS 9193-1988. Length atleast 300MM(12-Inch), High Quality Stainless Steel Rulers (no cork backing) with Acid etched graduations filled with black ink				
170	Rule steel(600MM)	Nos	"Easy-Read" Metric/Inch Stainless Steel Etched Ruler with zero at the edge. Top edge is graduated in 1 mm increments with numbers in mm value. Bottom edge is graduated in inches. First two inches are in 1/32" increments, third inch is in 1/64" increments, the rest of the ruler is graduated in 1/16" increments. Rulers have conversion tables on the reverse. Conforming to IS 9193-1988. Length atleast 600MM(24-Inch), High Quality Stainless Steel Rulers (no cork backing) with Acid etched graduations filled with black ink	4			
171	Letter Punch	No.	Letter Size should be 4mm or equivalent. Letter A to Z Stamp Set on letters. Square heads, knurled grip and polished tips. Generally Conforming to IS 7177-1999 Should make out of high-grade Chrome steel accurately machined and heat treated. Should have Black phosphate finish.	1			
172	Number Punch set	No	Size should be 4MM or equivalent. Number: 0 to 9 Stamp Set. Square heads, knurled grip and polished tips. Generally Conforming to IS 7177-1999. Should make out of high-grade Chrome	1			

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			steel accurately machined and heat treated. Should have Black phosphate finish.				
173	Wing Compass	Nos	Divider With Quadrant should have size 250mm & 300mm	2			
174	Hand Hammer	Nos	3.6Kg Heavy Duty Sledgehammer, Length: 30 Inch(approx.) with wooden Handle. Partially Hardened up to 55 - 58 HRC on Striking surfaces. Drop forged from high grade carbon steel. Phosphated and painted. Handle made from high quality axle wood and fixed firmly to hammer head. Generally Conforming to IS 841-1983 or equivalent.	2			
175	Engineers Try Square (Knife wedge)	Set	Try Square: used for checking Sureness & straightness. • Blade. Size- Minimum 150 mm. • Made from single piece high quality tool steel. • A groove on the inner corner of the stock. • Packed in wooden box	1			
176	Radius Gauges(Assorted)	Nos.	Radius Gauge Should Have Measure 1.0-7.0 mm Radius. Blades contains 17 nos.	13			
177	CAD software (latest version)	Nos	<input type="checkbox"/> Software (for training and educational purpose 25 seats in network environment) <input type="checkbox"/> MasterCAM Software Version X 8 (or latest). MasterCAM Mill - Associative CAD/CAM for 21/2 –axis, 3-axis machining, design, solids, engrave, true, drawing translator for all Autodesk products, CAD file change recognition, translators for solid works, solid Edge, Pro-E, Ideas, CATIA/UG. True solid 3-axis verify, machine simulation for mill, sub programming, ruffing, finishing and NC code editor and Post processors MasterCAM lathe – Associate CNC programming system for turning. MasterCAM design functionality and ruffing,	13			

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			<p>finishing, threading, grooving, boring, drilling and cut off. The editable tool, material and operational libraries, Automatic tool composition, Tool path verification, turn mill capabilities, NC code editor and Post processors. MasterCAM modelling – powerful 3D software should be included in Mill and Lathe modules. Dynamic Motion technology for increasing machine efficiency.</p> <p><input type="checkbox"/> Unigraphics version of the software shall be NX-7.5 or latest. Features & modules: drafting, solid modeling, surface modeling, sheet-metal design, geometric tolerancing, Mould wizard, assembly, die engineering, CAM module with all standard features for lathe, milling, Wire-EDM, customised post processor machines, NXNASTRON with CFD, ANSI's environment. The software should be capable of working on 32- and 64-bit computers with operating system Windows-7/Windows-8</p> <p><input type="checkbox"/> CATIA V5/V6 or Latest for training and educational purposes. Essentially should have V5 Discovery / PLM Discovery. CATIA design master & Digital Manufacturing Master.</p> <p><input type="checkbox"/> Additional Requirements for Large Datasets, Point Clouds, and 3D Modelling</p> <p>a) Memory 32 GB RAM or greater</p> <p>b) Disk Space 6 GB free hard disk available, not including installation requirements</p> <p>c) Display Card NVIDIA Quadro card with 2 GB or more of memory. Other graphics cards can be</p>				

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			<p>used, but they must offer full OpenGL 3.2 support (typically manufactured by AMD/ATI)</p> <p>d) Power Supply Appropriate Wattage for Graphics (estimated around 820W to 850W) 90% Efficiency or better.</p> <p>e) Slots Atleast 2 PCIe x16 Slot Gen 3, 1 PCIe x16 (wired x4) Slot Gen 3, PCIe x16 (wired x4) Slot Gen 2, 1 PCIe x1 Slot Gen 2, 1 PCI 32/33 Slot</p> <p>f) Ports USB 2.0(atleast 3 in Front, 5 in Rear, 3 Internal); USB 3.0(at least 1 Front, 1 in Rear); IEEE 1394 Firewire; Line in for mic/stereo (in Front &Rear); Line out for headphones/speakers (in Front & Rear); PS/2 ; Serial (at least 1); Parallel (1 Optional); RJ-45 Ethernet (2 Rear)</p> <p>g) RAM 16GB (4 x 4GB) DDR3, 1600Mhz ECC RAM with RMT Technology upgradable to 128GB</p> <p>h) Monitor23Inch LED/TFT suitable 3D viewing (active mode with emitter and glasses all configurations must be listed).</p> <p>i) VGA/XGA, WXGA, HDMI 1.4 (for 3D) protocol support. Kit / support for 3D viewing, Sleep mode operation. Keyboard and Optical Mouse for smooth operation. Option of BD drive (RW) in lieu of DVD writer.</p> <p>j) Anti-Virus Software</p> <p>k) Printer Print Speed Black, Normal up to 14mm (Speed specification per industry standard testing method), First Page out (ready), Black: As fast as 10Sec, Print quality black (best) Up to 600 x 600 dpi (1200 dpi effective output), Duty cycle</p>				

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			(monthly A4), Printer Technology: Laser, Processor Speed :234 MHz l) Plotter: HP Design jet T1100 / Z2100 or equivalent. Resolution Best (colour & b/w)-2400 x 1200 optimized dpi, Normal (colour & b/w):600x600dpi, Processor:600MHz or near, Memory:128/256 MB normal,40GB HDD, Media size:1117MM mm wide and 90M long, Ink type: HP Viverra ink or equivalent, Handling: sheet feed, automatic cutter, Number of cartridges: 8 of 130ml ink				
178	Desktop computer	Nos	System requirements a) Operating System Windows 10 or 11 or latest with 64-bit Professional. CPU Type Intel or AMD 64-bit processor/ Intel i7 processor. Memory16 GB/32GB or better. Display Resolution1920 * 1080 resolution or better. Display Card NVIDIA Quadro graphics card with 2 GB dedicated memory. Disk Space500 GB Solid State Drive (SSD) with 20 GB free. Pointing Device3-button Microsoft or Logitech mouse/ 3DConnexion 3D mouse. Media (DVD)Download and installation from DVD. Browser Windows Internet Explorer® 9.0 (or later). .NET Framework.NET Framework Version 4.5. Network Deployment via Deployment Wizard. The license server and all workstations that will run applications dependent on network licensing must run TCP/IP protocol. Either Microsoft® or Novell TCP/IP protocol stacks are acceptable. Primary login on workstations may be Netware or Windows. In addition to operating systems	13			

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			<p>supported for the application, the license server will run on the Windows Server® 2012, Windows Server 2012 R2, Windows Server 2008, Windows 2008 R2 Server editions. Citrix® XenApp™ 6.5 FP1, Citrix® Xen Desktop™ 5.6. Processor Footnote: - (6) Multi-core is designed to improve performance of certain software products. [7] Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration. Memory:-8 GB DDR4-3200 MHz RAM (1 x 8 GB). Memory Slots:-2 DIMM</p> <p>Memory Note:-Transfer rates up to 3200 MT/s. Hard Drive Description:- 256 GB PCIe® NVMe™ M.2 SSD</p> <p>Hard Drive (2nd):-1 TB 7200 rpm SATA HDD</p> <p>Storage Type:-SSD; HDD. Optical Drive:-Optical drive included. Cloud Service:-25 GB Dropbox storage for 12 months. Display And Graphics:- Graphics Intel® UHD Graphics 770. Expansion Features</p> <p>I/O Port Location</p> <p>Front Ports:-4 SuperSpeed USB Type-A 5Gbps signaling rate; 1 headphone/microphone combo</p> <p>I/O Port Location:-Rear Ports:-4 USB 2.0 Type-A; 1 audio-in; 1 audio-out; 1 RJ-45; HP Serial Port Adapter Expansion Slots 2 M.2; 1 PCIe x16; 1 PCIe x1. Video Connectors-1 VGA; 1 HDMI-out 1.4b</p> <p>Input Devices-Pointing Device, HP 125 USB Black Wired Mouse</p> <p>Keyboard - HP 125 USB Black Wired Keyboard</p>				

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			Communications - Network Interface Integrated 10/100/1000 GbE LAN, Wireless - Realtek RTL8822CE 802.11a/b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 5 combo. Pre-Installed Software- Microsoft Office Home and Student (Lifetime)				
179	UPS	Nos.	Phase In - 3 Phase Out; Capacity (Rated Power): 5KVA (500VAX10 nos) or better; Technology: Double Conversion Low Frequency switching PWM, using IGBT modules • Input Voltage : 360 V to 450 V ± 5V AC, Three Phase ; Frequency : 45 ~ 55 Hz ; • Phase: Three Phase Three Wire (compatible for Phase reversal); Generator Compatibility. • Output Voltage: 400V AC Ph. to Ph. ± 2% on 100% unbalance Load; (Adjustable to 380V AC to 415V AC). • Frequency : 50 Hz ± 0.5% ; Linear load : < 3% • Non-Linear load : < 5% ; Waveform ; Pure Sine Wave : Overload Capability : 125% for 2 minutes/150% for 30 seconds .• Crest Factor : 3: 1 (Max) ; • Short Circuit Protection : Instant ; Manual Bypass : Inbuilt upto 15 KVA ; Static Bypass (Optional)(Externally) < 10ms ; • Inverter/Overall Efficiency: 85% ~ 92% ; Battery : DC Voltage 360 VDC (Recommended Battery Capacity Min. 42 AH; 12 Volt ; 30 Nos.) .• LED for UPS Status and LCD for Voltage, Current & Frequency. • Audible Alarm : For Battery Low, DC High, Output High, Overload : Noise Level ≤ 50 dB • Transient Response: For 100% Step Load charge ± 5% and Recovers to Normal within 20 ms. • Ambient Temperature: 0-45° C ; Relative Humidity : 0-95% Non-Condensing . • Cooling:	13			

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			Forced Air-Cooled. • Ethernet or USB interface for management, Emergency Power Off System. • With well-ventilated Battery Rack. (iron make).				
180	Smart Interactive Touch screen TV / Monitor	Nos	Smart Interactive Touch screen TV / Monitor Aspect Ratio 16:9 Resolution UHD 3840x2160 Pixel Response Time 8 MS Screen Size 86inch Panel Type IPS Active Area 1895x1066mm Brightness Typical 350 Nits Contrast Ratio Typical 1200:1 Dynamic Contrast Ratio 30,000:1 Color Depth 10 Bit Color Gamut 68% NTSC Operation Hours 18 Hours/ 7Days Orientation Landscape Light Life Typical 50,000 Hours The item should be supplied with all accessories required for the full feature functioning. The item should be supplied with all essential spares required to reduce downtime of the item. The item should be supplied with User / Operating Manual / Service Manual / Maintenance Manual, 2 year warranty certificate, 3 years CMC certificate and all quality and test certificates mentioned in the technical specifications.	1			
181	Surround speakers	Set	Intended application: Ideal for use with the UHD Interactive touch systems Display. For use for audience of size 25 + students. Type: Handheld wireless and Collar type (1 each)	1			

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			Connectivity: Wireless connectivity Number of Microphone inputs: minimum 4 Number of Audio outputs: Minimum 2. Minimum Audio Power output: 100 W Minimum sound output: 90 Db Minimum Number of Speakers: 2 In-built rechargeable batteries with in-built Battery Charger Minimum Features: Amplifier & DSP with Acoustics echo cancellation, Acoustics gain control, Acoustics noise suppression, Acoustics Noise cancellation for Professional Two-Way Audio Communication over Video Conference and Local Sound Reinforcement. Dedicated USB port for unified communication Two-Way Audio Transmission. Complete audio system should be supplied as an integrated unit or independent units compatible with each other and all items of the Microphone and Speaker system should be from the same OEM for best compatibility.				
182	All in one copier	Nos	All-in-One Printer with Print-Copy-Scan Features. Output up to 100 PPM or better. Standard Output Capacity (Transparencies) - Up to 75 sheets. Media Type and Capacity, Tray 1 Sheets: 150; envelopes: 10. Paper Handling Input, Standard - 150-sheet input tray. Input Capacity - Up to 150 sheets. Paper Handling Output, Standard - 100-sheet face-down bin. Standard Output Capacity (Envelopes) - Up to 10 envelopes. Maximum	3			

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			Input Capacity (Sheets) - Up to 150 sheets. Display - LED.				
183	Computer	Nos.	Operating System: -Windows 11 Home Single Language in S mode. Processor Intel® Core™ i7-12700 (up to 4.9 GHz with Intel® Turbo Boost Technology or better, atleast 25 MB L3 cache or equivalent, 12 cores, 20 threads). Processor Six (6) Multi-core or better. [7] Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration. Memory:-8 GB DDR4-3200 MHz RAM (1 x 8 GB) or better. Atleast 2 DIMM Memory Slots. Memory Note:-Transfer rates up to 3200 MT/s or equivalent. Hard Drive 512 GB PCIe® NVMe™ M.2 SSD and Hard Drive 2nd should be atleast 1 TB, 7200 RPM SATA HDD. Storage Type SSD; HDD or with Optical Drive (included in scope). Cloud Service should be provided for atleast 25 GB Dropbox storage for 36 months or more period at no cost basis. Display and Graphics Intel® UHD Graphics 770 or better. Expansion Features - I/O Port Location at Front. Ports Four (4) Super Speed USB Type-A 5GBPS or better signalling rate. Supply should also include One headphone/microphone combo. I/O Port Location in Rear Number of Ports should not be less than 4 USB, 2.0 Type-A; with 1 audio-in; 1 audio-out; 1 RJ-45; HP Serial Port Adapter. Expansion Slots - 2 M.2; 1 PCIe x16; 1 PCIe x1 Video Connectors - 1 VGA; 1 HDMI-out 1.4b	3			

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			Input Devices/Pointing Device - HP 125 USB Black Wired Mouse, Keyboard - HP 125 USB Black Wired Keyboard. Communications - Network Interface, Integrated 10/100/1000 GbE LAN, Wireless Realtek RTL8822CE 802.11a/b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 5 combo. Should be Pre-Installed with Microsoft Office Home and Student (Lifetime)				
184	Desktop Computer	Nos.	Operating System: -Windows 11 Home Single Language in S mode Processor :- Intel® Core™ i7-12700 (up to 4.9 GHz with Intel® Turbo Boost Technology, 25 MB L3 cache, 12 cores, 20 threads) Processor Footnote:- (6) Multi-core is designed to improve performance of certain software products. [7] Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration. Memory: 8 GB DDR4-3200 MHz RAM (1 x 8 GB) Memory Slots:-2 DIMM Memory Note:-Transfer rates up to 3200 MT/s. Hard Drive Description:- 256 GB PCIe® NVMe™ M.2 SSD Hard Drive (2nd):-1 TB 7200 rpm SATA HDD Storage Type:-SSD; HDD Optical Drive:-Optical drive not included Cloud Service: -25 GB Dropbox storage for atleast 36 months Display and Graphics:-Graphics Intel® UHD Graphics 770 Expansion Features	26			

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#	Name of the Item/ Equipment	UoM	Specifications Required Value / Range	Total Qty to be procured	Country of Origin (to be filled by the Bidder)	Specification (To be filled by the Supplier)	Pass/Fail (By Purchaser)
			I/O Port Location Front Ports:-4 SuperSpeed USB Type-A 5Gbps signaling rate; 1 headphone/microphone combo I/O Port Location:-Rear Ports:-4 USB 2.0 Type-A; 1 audio-in; 1 audio-out; 1 RJ-45; HP Serial Port Adapter Expansion Slots - 2 M.2; 1 PCIe x16; 1 PCIe x1 Video Connectors - 1 VGA; 1 HDMI-out 1.4b Input Devices - Pointing Device - HP 125 USB Black Wired Mouse Keyboard - HP 125 USB Black Wired Keyboard Communications Network Interface - Integrated 10/100/1000 GbE LAN Wireless - Realtek RTL8822CE 802.11a/b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 5 combo Pre-Installed Software - Microsoft Office Home and Student (Lifetime)				
185	Auto-CAD Software	Users	AutoCAD 2024 – with the newest features in AutoCAD® 2024 software, including industry- specific toolsets, new automation, and insights. Revit® BIM software helps architecture, engineering and construction (AEC) teams create high-quality buildings and infrastructure. Use Revit to: Model shapes, structures and systems in 3D with parametric accuracy, precision and ease. Streamline documentation work, with instant revisions to plans, elevations, schedules and sections as projects change. Empower multi- disciplinary teams with specialty toolsets and a unified project environment. Design and annotate	26			

Section 6

Technical Specification with Required Value/Range

IFB NO: GSDM/GATI/IToT (08)-2023/09

#	Name of the Item/ Equipment	UoM	Specifications Required Value / Range	Total Qty to be procured	Country of Origin (to be filled by the Bidder)	Specification (To be filled by the Supplier)	Pass/Fail (By Purchaser)
			2D geometry and 3D models with solids, surfaces and mesh objects. Automate tasks such as comparing drawings, replacing blocks, counting objects, creating schedules and more. Create a customized workspace to maximize productivity with add-on apps and APIs				
186	Laser Jet printer	Nos	Print, Copy and Scan 1no. Output Capacity - Up to 100 sheets, Maximum Output Capacity (Sheets) - Up to 100 sheets Standard Output Capacity (Transparencies) - Up to 75 sheets, Media Type And Capacity, Tray 1 Sheets: 150; envelopes: 10, Paper Handling Input, Standard - 150-sheet input tray, Input Capacity - Up to 150 sheets, Paper Handling Output, Standard - 100-sheet face-down bin, Standard Output Capacity (Envelopes) - Up to 10 envelopes, Maximum Input Capacity (Sheets) - Up to 150 sheets, Display - LED, Acoustic Power Note - Measured according to ISO 7779 and declared in accordance with ISO 9296; values are subject to change. Configuration tested: LaserJet Pro MFP M125nw printing simplex on A4 paper. 230V AC, 50Hz. operating voltage.	1			
187	UPS	Nos	Compact Design Line Interactive UPS with Load Capacity of 660Watts / 1100VA. Five 6A, 2/3 Pin Indian Power Socket (4 Battery Backed-up & Surge Protected plus 1 Surge Only Protected Outlet). Automatic Voltage Regulator (AVR) with Wide Input Voltage Range 145-290V. 2x7.2Ah Battery provides 30 - 90 min. Back-Up time as per the load	26			

Section 6

Technical Specification with Required Value/Range

IFB NO: GSDM/GATI/IToT (08)-2023/09

#	Name of the Item/ Equipment	UoM	Specifications Required Value / Range	Total Qty to be procured	Country of Origin (to be filled by the Bidder)	Specification (To be filled by the Supplier)	Pass/Fail (By Purchaser)
188	LCD Projector	Nos	RGB liquid crystal shutter projection system (3LCD). No Optical Zoom / Focus (Manual), Focal Length: 16.70 mm, F-number: 1.44, Zoom: 1.44 - 1.95 (Wide to Tele) Ratio, Throw Ratio Range: 1.00 – 1.35 (Digital Zoom), Operating Altitude: 0 – 3,048 m <0 – 10,000 ft>, Lamp Life: Life (Normal / Eco): 6,000 / 12,000 hours, Keystone Correction: Horizontal/Vertical: ±30 degrees, Projection System: 3LCD, Aspect Ratio: 4:3, Native Resolution: XGA (1024 x 768), Lamp Type: 210 W UHE, with Screen Wall Mounted 4*6 Ft. and Suitable HDMI Cable of 20 Mtr.	1			
189	Computer System with latest configuration with	Set	Operating System: -Windows 11 Home Single Language in S mode Processor :- Intel® Core™ i7-12700 (up to 4.9 GHz with Intel® Turbo Boost Technology, 25 MB L3 cache, 12 cores, 20 threads). Processor Footnote:- (6) Multi-core is designed to improve performance of certain software products. [7] Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration. Memory - 8 GB DDR4-3200 MHz RAM (1 x 8 GB), Memory Slots:-2 DIMM, Memory Note:- Transfer rates up to 3200 MT/s. Hard Drive Description:- 256 GB PCIe® NVMe™ M.2 SSD. Hard Drive (2nd):-1 TB 7200 rpm SATA HDD. Storage Type:-SSD; HDD Optical Drive included. Cloud Service:-25 GB Dropbox storage for 12 months. Display and Graphics - Intel® UHD Graphics 770. Expansion	1			

Section 6

Technical Specification with Required Value/Range

IFB NO: GSDM/GATI/IToT (08)-2023/09

#	Name of the Item/ Equipment	UoM	Specifications Required Value / Range	Total Qty to be procured	Country of Origin (to be filled by the Bidder)	Specification (To be filled by the Supplier)	Pass/Fail (By Purchaser)
			Features. I/O Port Location in the Front. Ports:-4 SuperSpeed USB Type-A 5Gbps signaling rate; 1 headphone/microphone combo I/O Port Location:- Rear Ports:-4 USB 2.0 Type-A; 1 audio-in; 1 audio-out; 1 RJ-45; HP Serial Port Adapter. Expansion Slots - 2 M.2; 1 PCIe x16; 1 PCIe x1 Video Connectors - 1 VGA; 1 HDMI-out 1.4b Input Devices - Pointing Device, HP 125 USB Black Wired Mouse, Keyboard - HP 125 USB Black Wired Keyboard. Monitor 23.8 Inch FHD IPS Display. Communications - Network Interface, Integrated 10/100/1000 GbE LAN, Wireless - Realtek RTL8822CE 802.11a/b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 5 combo. Pre-Installed Software - Microsoft Office Home and Student (Lifetime)				
190	UPS	Nos	Compact Design Line Interactive UPS. Five 6A, 2/3 Pin Indian Power Socket (4 Battery Backed-up & Surge Protected plus 1 Surge Only Protected Outlet). Automatic Voltage Regulator (AVR) with Wide Input Voltage Range. Battery provides 30 - 90 min. Back-Up time as per the load. Online UPS with 3 Phase IN and 3 Phase OUT; Capacity (Rated Power): 5KVA(500Vx10 nos) or better; Technology: Double Conversion Low Frequency switching PWM, using IGBT modules • Input Voltage : 360 V to 450 V ± 5V AC, Three Phase ; Frequency : 45 ~ 55 Hz ; • Phase: Three Phase Three Wire (compatible for Phase reversal); Generator Compatibility. • Output Voltage: 400V AC Ph. to Ph. ± 2% on	1			

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Technical Specification with Required Value/Range

IFB NO: GSDM/GATI/IToT (08)-2023/09

#	Name of the Item/ Equipment	UoM	Specifications Required Value / Range	Total Qty to be procured	Country of Origin (to be filled by the Bidder)	Specification (To be filled by the Supplier)	Pass/Fail (By Purchaser)
			100% unbalance Load; (Adjustable to 380V AC to 415V AC). • Frequency : 50 Hz \pm 0.5% ; Linear load : < 3% • Non-Linear load : < 5% ; Waveform ; Pure Sine Wave : Overload Capability : 125% for 2 minutes/150% for 30 seconds • Crest Factor : 3: 1 (Max) ; • Short Circuit Protection : Instant ; Manual Bypass : Inbuilt upto 15 KVA ; Static Bypass (Optional)(Externally) < 10ms ; • Inverter/Overall Efficiency: 85% ~ 92% ; Battery : DC Voltage 360 VDC (Recommended Battery Capacity Min. 42 AH; 12 Volt ; 30 Nos.) • LED for UPS Status and LCD for Voltage, Current & Frequency. • Audible Alarm : For Battery Low, DC High, Output High, Overload : Noise Level \leq 50 dB • Transient Response: For 100% Step Load charge \pm 5% and Recovers to Normal within 20 ms. • Ambient Temperature: 0-45° C ; Relative Humidity : 0-95% Non-Condensing • Cooling: Forced Air-Cooled. • Ethernet or USB interface for management, Emergency Power Off System. • With well-ventilated Battery Rack. (iron make). • AMC Rates post warranty to be quoted separately.				
191	LCD Projector Screen	Nos	Wall type 6X4 Feet 84"	1			
192	Document Camera / Visualizer	Nos	Image Sensor - 2 Mega Pixel HD CMOS Active Pixels Digital Image Sensor. Resolution Max - 1600x1200. Support Resolution - 320X240, 640X480, 800X600, 1280X960, 1280X1024, 1600X1200. Light Source - Integrated white LED or ambient light. Capture Size - A4 or equivalent. Image Output - White Black, Grayscale, Color. Image Adjustment Color (R/G/B) and Brightness	1			

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Technical Specification with Required Value/Range

IFB NO: GSDM/GATI/IToT (08)-2023/09

#	Name of the Item/ Equipment	UoM	Specifications Required Value / Range	Total Qty to be procured	Country of Origin (to be filled by the Bidder)	Specification (To be filled by the Supplier)	Pass/Fail (By Purchaser)
			Adjustment, Gamma Correction, Hue, Exposure, Sharpness Adjustment and Gain Control. With Auto White Balance. Image Process - Zoom, Rotate, Mirror, Rectangle select, Cut, Create PDF, OCR and etc. File Formats - JPEG, BMP, PNG, TIF, J2K, JP2, JPC, RAS, TGA. Power Supply - (5V) USB powered, no External Power Required. Power Consumption - 150mW at maximum data rate,3.3V. Communication Interface - USB2.0 UVC. Operating System - Windows XP (32 64 bit); Windows Vista (32 64 bit); Windows 7(32 64 bit). System Requirements - 1GHz Pentium,512MB RAM, USB2.0 port, CD-ROM Drive. Size - Folded Size: 240*80*92MM. Working Size: 240*80*240MM. Supplied with Manual, USB2.0 Cable, Scan mat.				
193	Smart Board / Inter Active Board	Set	Aspect Ratio 16:9, Resolution UHD 3840x2160 Pixel, Response Time 8 MS, Screen Size 86 Inch, Panel Type IPS, Active Area 1895x1066mm, Brightness Typical 350 Nits, Contrast Ratio Typical 1200:1, Dynamic Contrast Ratio 30,000:1, Color Depth 10 Bit, Color Gamut 68% NTSC, Operation Hours 18 Hours/ 7Days, Orientation Landscape, Light Life Typical 50,000 Hours. The item should be supplied with all accessories required for the full feature functioning. The item should be supplied with all essential spares required to reduce downtime of the item. The item should be supplied with User / Operating Manual / Service Manual / Maintenance Manual.	2			

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#	Name of the Item/ Equipment	UoM	Specifications Required Value / Range	Total Qty to be procured	Country of Origin (to be filled by the Bidder)	Specification (To be filled by the Supplier)	Pass/Fail (By Purchaser)
194	Over Head Projector	Nos	Hardware Interface D-Sub, HDMI, USB 2.0 Type A Resolution Full HD 1080p. Special Features Speakers Mounting Hardware Projector, 1.8 Meter Power Cable, 1.5 Meter VGA Cable, Remote Control, AAA Battery x 2, Remote Control Description IR. Display Technology DLP, DLP Display Type. Image Brightness 3800. Aspect Ratio 16:9 or better, Screen Resolution 1920 x 1080 or better. Noise Level less than 34 dB or equivalent. Power 230 V, 280-Watt, Refresh Rate 60 Hz or better. Number of USB Ports 2(Two) or more. Connector Type VGA, USB, HDMI, Mounting Type Table Mount, Remote Control. Supplied with all essential spares, accessories including Cables. With Screen Wall Mounted 4*6 Ft. and Suitable HDMI Cable of 20 Mtr.	2			
195	Video Camera with stand	Nos	Webcam 1080 Pixel or better Camera for HD Video Streaming Recording 720P at 60 FPS – Black Color, with compatible Tripod Stand. Standing screen display size atleast 7.28 Inches or better. Batteries Lithium Polymer batteries. Wireless Type 2.4 GHz Radio Frequency. Rear Webcam Resolution: -1080 MP or better. Lithium Battery Energy Content atleast 21 Watt Hours or better. Atleast Two Number of Lithium Ion Cells. Included Components C922, 1.5 m cable.	1			
196	Printer cum Scanner	Nos	All-in-One Printer with Print-Copy-Scan Features. Output up to 100 PPM or better. Standard Output Capacity (Transparencies) - Up to 75 sheets. Media Type and Capacity, Tray 1 Sheets: 150; envelopes: 10. Paper Handling Input, Standard -	1			

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Technical Specification with Required Value/Range

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#	Name of the Item/ Equipment	UoM	Specifications Required Value / Range	Total Qty to be procured	Country of Origin (to be filled by the Bidder)	Specification (To be filled by the Supplier)	Pass/Fail (By Purchaser)
			150-sheet input tray. Input Capacity - Up to 150 sheets. Paper Handling Output, Standard - 100-sheet face-down bin. Standard Output Capacity (Envelopes) - Up to 10 envelopes. Maximum Input Capacity (Sheets) - Up to 150 sheets. Display – LED				
197	Laptop with all latest OS	Nos	Processor – 12th Gen Intel® Core™ i7-1255U (12 MB cache, 10 cores, 12 threads, up to 4.70 GHz Turbo) Operating System - Windows 11 Home Single Language, English Video Card - Intel® Iris® Xe Graphics Display - 14.0-inch 16:10 FHD+ (1920 x 1200) Anti-Glare Non-Touch 250nits WVA Display with Comfort View Support Memory - 16 GB, 2 x 8 GB, DDR4, 3200 MHz Hard Drive - 512 GB, M.2, PCIe NVMe, SSD Pre-installed with Microsoft Office Home and Student 2021 or latest version with life-time upgradation. Security Software - McAfee® Multi Device Security atleast 36-month subscription Keyboard - Titan Gray English International Backlit Keyboard	1			
198	Safety chart sand posters	No.	Welding displays on safety in workshop	10			
199	White board with magnetic duster	No	Matt Finish Magnetic White Board, porcelain coated, full-length marker tray. Size: 8' X 4' • Can be Mount horizontally or vertically, • Frame Material: Black/Gray Aluminium materials only.Finished PVC Cornres. Felt Board: Size: 8'X4', High Tear-resistance Felt, Frame: Satin-	1			

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Technical Specification with Required Value/Range

IFB NO: GSDM/GATI/IToT (08)-2023/09

#	Name of the Item/ Equipment	UoM	Specifications Required Value / Range	Total Qty to be procured	Country of Origin (to be filled by the Bidder)	Specification (To be filled by the Supplier)	Pass/Fail (By Purchaser)
			finish Aluminium Alloy Frame and Precision Engineered Particle Board Core to Make the Board Warp-free and 100% Flat. High Density Fibreboard to pinup. Finished PVC Cornres, Wall Horizontal Mounting.				
200	First aid box	No.	Easy To Carry Handle and Buckle Lock Shuts the Lid Keeping the Items Safely Inside. Made with BPA-Free and Durable Plastic. It is Easy to Open, Close Wash and Clean. Inner removable Tray and Deep Storage area offer Flexible Storage and Increases Storage Space. First Aid Kit equipped with all essential elements required to handle a quick emergency. Package Content: 10 pcs Safety Pin, 10 pcs Cotton Tip Applicator, 25 pcs Adhesive Plaster 19x72mm, 10 pcs Adhesive Plaster 25x72mm, 5 pcs Adhesive Plaster Round, 3 pcs Adhesive Plaster Square, 2 pcs Adhesive Plaster Knuckle, 5 pcs Wound Cleaning Wipes, 5 pcs Antiseptic Wipes BZK, 2 pcs Sterile Burn Dressing 10cm, 1 pc Micropore Tape 1.25x5m, 1 pc Antiseptic Cream 10gm, 5 pcs Wound Cleaning Wipes, 5 pcs Antiseptic Wipes BZK, 3 pcs Sterile Gauze Swab 10cm, 3 pcs Sterile Gauze Swab 7.5cm, 2 pcs Sterile Adhesive Plaster 6x10cm, 3 pcs Elastic Gauze 8bandage 6x1m, 2 pcs Gauze Bandage 7.5x3m, 1 pc Sterile Wound Dressing Large. 1 pc Sterile Wound Dressing Medium General Medicines: 1 pc Dusting Powder 10gms, 1 pc Tincture Iodine 20ml, 1 pc Burn Cream 15gms, 1 pc Eye/Ear Drops 5ml, 1 pc Crystal Violet 5ml, 5 pcs	1			

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			Electrolyte Powder 4.2g, 10 pcs Paracetamol Tablet 500mg, 14 pcs Aspirin 75 mg Tablets General Items: 1 pc Scissor 5.5" Tough Cut, 1 pc Antiseptic Lotion 100ml 1 pc Tweezer Plastic, 1 pc Absorbent Cotton 20gms, 1 pc Triangbrar Bandage, 1 pc Tourniquet, 1 pc Instant Cold Compress, 1 pc Penlight, 1 pc CPR Mouth Barrier with Gloves, 1 pc First Aid Guide, 2 pcs Sterile Oval Eye Pad, 2 pcs Wooden Splint, 2 pcs Examination Gloves				
201	White Board	Nos	Whiteboard Size: 6ft. x 4ft. with Duster. • Material: Ferrous base sheet (Magnetic Type) to hold duster with white finish surface. • Comes with full-length marker tray. • Can be Mount horizontally or vertically • Frame Material: White, Black/Gray Aluminum materials only	1			
202	Pin board	Nos.	Material Softboard Core, Alloy Aluminum (6063-T6) Frame, Premium Flocked Fabric (Velvet) Cloth Surface & Virgin ABS Corners Softboard Core, Alloy Aluminum (6063-T6) Frame, Premium Flocked Fabric (Velvet) Cloth Surface & Virgin ABS Color Green Size 1.5 X 2 ft, Shape Rectangular	4			
203	White board		White Board Size-6 feet X 4feet Magnetic matt finish porcelain on steel, Aluminum frame, wall mountable. Magnetic Board with Aluminum Frame.	1			
204	Wall Clock	Nos	Material: Plastic, Color: Black, Rectangle Wall mounted Clock. Mechanism: Electro-Mechanic, With Battery (atleast 2 Nos of AA Batteries).	1			

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			Size: 25.4 cm x 3.5 cm x 25.4 cm (approx.) or equivalent. Reputed make				
205	Wall charts, Transparencies and DVDs related to the trade	Set	Wall charts for welding trade Types of welding joints, Electric resistance welding, Spot welding, Seam welding, Flash welding, Electric Arc welding, Submerged Arc welding, Thermit Arc welding, Oxy-Acetylenes Torch, Gas flames, Basic weld symbols, Supplementary weld symbols, Laser beam welding, atomic hydrogen welding, TIG & MIG welding, Welding torch and Electroslag welding	1			
206	Safety goggles.	Nos	UV6 rated polycarbonate lenses absorb 99.9% of UVA, UVB, and UVC rays between 200 nm and 380 nm, Meets the Impact-Rated Protector requirement of the ANSI-ISEA Z87.1 Standard, Anti-Fog, Anti-Scratch.	26			
207	Fire Extinguisher	Nos.	Fire Extinguisher: CO2 Based Fire Extinguisher of 2 KG, 10 deg. to 55 deg. Conforming to IS: 15683:2006 and ISI marked or equivalent. Fire Rating 8B or better. Operating temperature. Clear Instruction Label. Wall mounting Kit. Operating principal, Installation and maintenance As per IS 15683:2006. Cylinder construction Seamless Steel As per IS 7285. Design and construction of valve As per IS15683:2006. Diameter 105 mm \pm 5% , Height 350 mm \pm 5% and Thickness as per AS per IS 15683:2006	2			
208	Fire Buckets	Nos.	Fire Buckets: Standard Size for Sand/Water. Size of the Fire Bucket shall be minimum nine (9) liters. The material of construction shall be Galvanized Iron with anti-corrosive treatment. Outside of the Fire Bucket shall be painted with	2			

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#	Name of the Item/ Equipment	UoM	Specifications Required Value / Range	Total Qty to be procured	Country of Origin (to be filled by the Bidder)	Specification (To be filled by the Supplier)	Pass/Fail (By Purchaser)
			primer and Fire Red Colour. the word "FIRE" shall be written outside the bucket in bold black letters. The inside of the Fire Bucket shall be painted with primer and white. Conforming IS 15683:2006 or equivalent standard.				
209	Fire Extinguisher	Nos	CO2 type Fire Extinguisher of 4.5Kgs. Capacity, made from brand new seamless cylinder, as per IS: 7285 and CCE approved, fitted with hose and horn and Squeeze Grip Valve with initial Charge of CO2 Gas conforming to IS 15222 or equivalent and Extinguisher as per BIS:15683:2006 or equivalent. specification with ISI Mark along with mounting Bracket and PESO certificate for cylinders. Foam Type: Foam fire extinguisher shall be Squeeze Grip. Cartridge type of 9 Ltr capacity having rating of 34B fitted with gunmetal cap, CO2 gas cartridge and hose with squeeze grip nozzle with ISI mark and mounting brackets. Initial charge of 270ml AFFF 3% foam compound shall be supplied in separate container. Spare cap assembly including all accessories such as gas tube siphon tube, safety pin, and discharge tube and co2 cartridge.	2			
210	Fire Buckets	Nos	Fire Buckets: Standard Size for Sand/Water. Size of the Fire Bucket shall be minimum nine (9) liters. The material of construction shall be Galvanized Iron with anti-corrosive treatment. Outside of the Fire Bucket shall be painted with primer and Fire Red Colour. the word "FIRE" shall be written outside the bucket in bold black letters. The inside of the Fire Bucket shall be	2			

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#	Name of the Item/ Equipment	UoM	Specifications Required Value / Range	Total Qty to be procured	Country of Origin (to be filled by the Bidder)	Specification (To be filled by the Supplier)	Pass/Fail (By Purchaser)
			painted with primer and white. Conforming IS 15683:2006 or equivalent standard.				
211	Leather gloves	Pair	Welders Leather Gloves 9"	4			
212	Leather apron	Nos	Easy wipe cleanable, Leather Apron, Welding Apron. Heat and moisture resistant. Kevlar stitched and re-in forced with rivets. Leather straps are provided for Additional strength. Standard. Free size "L" or "M". neck strap and the adjustable buckle on the back strap ensure comfort fit.	4			
213	Asbestos gloves	Pair	Industrial heat-resistant gloves protect arm and hand protection to workers from extreme heat and sparks Safety Gloves - 12"	4			
214	Equipment for conducting BLS (Basic Life Support) training		Convenient kit containing the training equipment needed to teach American Red Cross Basic Life Support (BLS) to a class size of 8. Great for new or just starting instructors. Kit Contents Include: 4 - AED Trainers with Adult and Child AED Trainer Gel Adhesive Pads 1 - Present Adult 4 Pack Manikin, includes 50 Adult Lung Bags and 4 Pack Carrying Case 1 - Infant 4 Pack Manikin with CPR Feedback Monitors, includes 50 Infant Lung Bags and 4 Pack Carrying Case 4 - Adult BVM Resuscitators with CPR Masks 4 - Infant BVM Resuscitators with CPR Masks 8 - Adult and Infant CPR Mask in Poly Bag	1			
215	Equipment for conducting BLS (Basic Life Support) training		Convenient kit containing the training equipment needed to teach American Red Cross Basic Life	1			

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#	Name of the Item/ Equipment	UoM	Specifications Required Value / Range	Total Qty to be procured	Country of Origin (to be filled by the Bidder)	Specification (To be filled by the Supplier)	Pass/Fail (By Purchaser)
			Support (BLS) to a class size of 8. Great for new or just starting instructors. Kit Contents Include: 4 - AED Trainers with Adult and Child AED Trainer Gel Adhesive Pads 1 - Present Adult 4 Pack Manikin, includes 50 Adult Lung Bags and 4 Pack Carrying Case 1 - Infant 4 Pack Manikin with CPR Feedback Monitors, includes 50 Infant Lung Bags and 4 Pack Carrying Case 4 - Adult BVM Resuscitators with CPR Masks 4 - Infant BVM Resuscitators with CPR Masks 8 - Adult and Infant CPR Mask in Poly Bag				
216	Stone oil	Nos	Silicon Carbide Combination Stone for Sharpening, Size 150mm x 50mm x 25mm.	4			
217	stone Carborundum	Nos	Carborundum Combination Sharpening Stone, 150 x 50 x 25 MM. Grain Size - 80 (fine grain) and 180 (medium grain)	2			
218	Consumables - Fitter consumable parts, items.	Set		1			

Section 7: Tender Forms

Form-1(A): Technical Bid Submission Sheet

Date: XXth XXXX XXXX

IFB No: GSDM/GATI/IToT (08)-2023/05

TO: (Name and address of purchaser)

Gentlemen and/or Ladies:

Having examined the Tender Documents including Addenda Nos..... [insert numbers], the receipt of which is hereby duly acknowledged, we, the undersigned, offer to supply and deliver..... (Description of Goods and Services) in conformity with the said tender documents.

We undertake, if our tender is accepted, to deliver the goods in accordance with the delivery schedule specified in the Schedule of Requirements.

If our tender is accepted, we will obtain the guarantee of a bank in a sum equivalent to percent of the Contract Price for the due performance of the Contract, in the form prescribed by the Purchaser.

We agree to abide by this tender for the Tender validity period specified in the ITB and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

We clarify/confirm that we comply with the eligibility requirements as per ITB Clause 1 of the tender documents.

Dated this day of 2023.

(signature)

(in the capacity of)

Duly authorized to sign Tender for and on behalf of

Note: The Tender Form should be completed and uploaded on the e-procurement portal.in the Technical Tender (First Cover)

Form-1(B): Technical Bid Submission Sheet

Technical Bid Compliance Report Gujarat Skill Development Mission,

(A Govt. of Gujarat Undertaking)

3rd Floor, Block No. 2, Dr. Jivraj Mehta Bhavan, Gandhinagar - 382010, Gujarat, India

email: to-gsdm-gnr@gujarat.gov.in

IFB No.: GSDM/GATI/IToT (08)-2023/09

Dated: DD-MMMM-YYYY

Sl. No.	Required Information	Bidders Response		Documents Attachment Page Sl. No
1	Name of Bidder Company /Firm/Agency			
2	Full address of Office with contact details (attach address proof)			
3	e-mail Id/Official Website:			
4	Details of Registration (Attach certificates of registration)			
5	Income Tax Registration No /PAN No. (Please Attach copy)			
6	GST Registration Number (Please Attach copy)			
7	Address of Local Service Center:			
8	The Bidder must submit a Bid Tender Fee ₹ 15,000/- and EMD along-with the Technical Bid amount of ₹ 36,41,370 /- (Rupees Thirty-Six Lakh Forty-One Thousand and Three Hundred Seventy Only) . Details of EMD (Attach copy of proof)	EMD Amount		
		Name of Bank		
		Account No		
		IFSC Code		
		MICR Code		
9	Name of proprietor / Director of Company / Firm / Agency & address:			
10	Classification of the bidder (a) Original Equipment Manufacturer (OEM) (b) Authorized Channel Partner (CP) (c) Authorized Dealer (d) Stockiest (e) others			
11	Name of OEM (Original Equipment / Goods Manufacturer)			
12	Copy of Brochure / Leaflets / Technical Information, including Make & Model, of the item(s) must be attached.	Please attach and mention the page number(s)		
13	Name, address, designation phone, cell number and e-mail address of the Contract Person:			

Section 7

Forms & Formats

IFB NO: GSDM/GATI/IToT (08)-2023/09

Sl. No.	Required Information	Bidders Response	Documents Attachment Page Sl. No
14	Whether quoted item confirms the specification of Tender?	Yes / No	
15	Whether firm have certifications: ISO 9000,	Please mention the certifications	
16	Undertaking Letter upon Confirmation on OEM Letterhead. Profile (CVs) of qualified and certified Trainers/ Installation & Commissioning Engineers		
17	Whether firm agrees to give security deposit / Performance Bank Guarantee against warranty obligations?	Yes / No	
18	Purchase Order Copies having executed equivalent or above amount, order copy for at least last 3 financial years.	Please mention the names of clients and attach copies	
19	List of Customers during last three years.		
20	The minimum financial performance (Average Annual Turnover – AATO) of the OEM in any three (03) of last five audited Financial Year starting from 2018-19, 2019-20, 2020-21, 2021-22 and 2022-23, should not be less than One Hundred Crore (100 Crore) . The AATO of Lead Bidder should not be less than Eight Crore (8 Crore) per year in any three financial years of the last five audited financial years. Proof of document		
21	Is organization / any of its subsidiaries not blacklisted by any Govt. / Govt. Departments / Academic Institutions / reputed organizations to be submitted with Notarized document.		
22	Is the bid valid for 180 days / or as Specified	Yes / No	
23	The Bidder should bear all the transportation & insurance risk till the delivery destination.	Accepted / Not accepted	
24	Is Bid document duly signed wherever necessary	Yes / No	
25	Payment Terms agreed as specified shall be made in the following manner: a) On delivery of all equipment - 80% of the Contract Price.	Yes / No Yes / No	

Section 7

Forms & Formats

IFB NO: GSDM/GATI/IToT (08)-2023/09

Sl. No.	Required Information	Bidders Response	Documents Attachment Page Sl. No
	<p>b) On Installation & Commissioning and Demonstration: 10% of the Contract Price</p> <p>c) On Completion of On-site Training and producing completion certification from competitive authority at iTOT: final payment of 10% of the Contract</p>		

Place and Date

(Signature of Bidder/authorized person)

Seal of the company/Firm

Form-2: Price Bid Submission Sheet

Date: DD-MMMM-YYYY

IFB No: **GSDM/GATI/IToT (08)-2023/09**

TO: (Name and address of purchaser)

Gentlemen and/or Ladies :

Having examined the Tender Documents including Addenda Nos..... [insert numbers], the receipt of which is hereby duly acknowledged, we, the undersigned, offer to supply and deliver..... (Description of Goods and Services) in conformity with the said tender documents for the sum of (Total tender amount in words and figures) or such other sums as may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this tender.

We undertake, if our tender is accepted, to deliver the goods in accordance with the delivery schedule specified in the Schedule of Requirements.

If our tender is accepted, we will obtain a guarantee of a bank in a sum equivalent to percent of the Contract Price for the due performance of the Contract, in the form prescribed by the Purchaser.

We agree to abide by this tender for the Tender validity period specified in Clause of the ITB and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal contract is prepared and executed, this tender, together with your written acceptance thereof and your notification of award, shall constitute a binding Contract between us.

We undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in India namely "Prevention of Corruption Act 1988".

We understand that you are not bound to accept the lowest or any tender you may receive.

We clarify/confirm that we comply with the eligibility requirements as per ITB Clause 1 of the tender documents.

Dated this day of 20.....

(signature)

(in the capacity of)

Duly authorized to sign Tender for and on behalf of

Note: The Tender Form should be completed and uploaded on the e-procurement portal.

Form-3: Earnest Money Deposit Form

Date: DD-MMMM-YYYY

IFB No: **GSDM/GATI/IToT (08)-2023/05**

Whereas(*hereinafter called "the Bidder"*) has submitted its tender dated (*Date of submission of tender*) for the supply of (*name and/or description of the goods*) (*hereinafter called "the Tender"*).

KNOW ALL PEOPLE by these presents that WE (*name of bank*) of (*name of country*), having our registered office at (*address of bank*) (*hereinafter called "the Bank"*), are bound unto (*Name of Purchaser*) (*hereinafter called "the Purchaser"*) in the sum of _____ for which payment well and truly to be made to the said Purchaser, the Bank binds itself, its successors, and assigns by these presents. Sealed with the Common Seal of the said Bank this ____ day of _____ 20____.

THE CONDITIONS of this obligation are:

1. If the Bidder
 - a) withdraws its Tender during the period of tender validity specified by the Bidder on the Tender Form; or
 - b) does not accept the correction of errors in accordance with the ITB; or
2. If the Bidder, having been notified of the acceptance of its tender by the Purchaser during the period of tender validity:
 - a) fails or refuses to execute the Contract Form if required; or
 - b) fails or refuses to furnish the performance security, in accordance with the Instruction to Bidders;

We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including forty-five (45) days after the period of the Bid validity, and any demand in respect thereof should reach the Bank not later than the above date.

.....
(Signature of the Bank)

¹ Name of Bidder

Form-4: Contract form

Date: DD-MMMM-YYYY

IFB No: **GSDM/GATI/IToT (08)-2023/09**

THIS AGREEMENT made theday of....., 20... Between
(Name of purchaser) of (Country of Purchaser) (hereinafter called "the Purchaser") of the
one part and (Name of Supplier) of (City and Country of Supplier)
(hereinafter called "the Supplier") of the other part:

WHEREAS the Purchaser is desirous that certain Goods and ancillary services viz.,
..... (Brief Description of Goods and Services) and has accepted a tender by
the Supplier for the supply of those goods and services in the sum of (Contract
Price in Words and Figures) (hereinafter called "the Contract Price").

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:
 - a) the Tender Form and the Price Schedule submitted by the Bidder;
 - b) the Schedule of Requirements;
 - c) the Technical Specifications;
 - d) the General Conditions of Contract;
 - e) the Special Conditions of Contract; and
 - f) the Purchaser's Notification of Award.
3. In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to provide the goods and services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the goods and services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

Brief particulars of the goods and services which shall be supplied/provided by the Supplier are as under:

#	Brief description of Goods & Works	Quantity to be Supplied	Unit Price	Total Price	Delivery Terms

TOTAL VALUE:

DELIVERY SCHEDULE:

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, Sealed and Delivered by the (For the Purchaser)	(Date & Signature of Witness)	(Date & Signature of Purchaser)
--	-------------------------------	---------------------------------

Signed, Sealed and Delivered by the (For the Supplier)	(Date & Signature of Witness)	(Date & Signature of Purchaser)
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Note: The Form is only for the Information of the Bidder and is not to be completed and uploaded

Form-5: Performance Security Form

Date: DD-MMMM-YYYY

IFB No: **GSDM/GATI/IToT (08)-2023/09**

To:

_____ (Name of Purchaser)

WHEREAS (Name of Supplier)
hereinafter called "the Supplier" has undertaken, in pursuance of Contract No..... dated XX-XX-2023 to supply.....(Description of Goods and Services) hereinafter called "the Contract".

AND WHEREAS it has been stipulated by you in the said Contract that the Supplier shall furnish you with a Through e-procurement portal by a recognized bank for the sum specified therein as security for compliance with the Supplier's performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Supplier a Guarantee:

THEREFORE, WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, up to a total of (Amount of the Guarantee in Words and Figures) and we undertake to pay you, upon your first written demand declaring the Supplier to be in default under the Contract and without cavil or argument, any sum or sums within the limit of (Amount of Guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until theday of XX-XX-2023

Signature and Seal of Guarantors

.....

.....

.....

Date.....20....

Address:.....

.....

.....

Note: This Form is for the information of the Bidder and is not to be completed and uploaded.

Form-6: Proforma for Performance Statement for the last Five years

Date: DD-MMMM-YYYY

IFB No: **GSDM/GATI/IToT (08)-2023/09**

Name of the Firm:

Orders placed by (Full address of Purchaser)	Order No and Date	Description and Quantity of Goods ordered	Value of Order	Date of Completion of Delivery As per contract/Actual	Remarks indicating reasons for late delivery, (if any)	Has the goods/ equipment been satisfactorily functioning. (Attach a Certificate from the Purchaser)
1	2	3	4	5	6	7

Note; This Form has to be completely filled and uploaded along with the supporting information/documents/certificates.

Signature and Seal of the Bidder:-----

Form-7: Manufacturers' authorization form*

Date: DD-MMMM-YYYY

IFB No: **GSDM/GATI/IToT (08)-2023/09**

(Please see Clause 11.2(a) of Instructions to Bidders

To

Dear Sir:

IFB No.

We _____ who are established and reputable manufacturers of _____ *(name and description of goods offered)* having factories at _____ *(address of factory)* do hereby authorize M/s *(Name and address of Agent)* to submit a tender, and sign the contract with you for the goods manufactured by us against the above IFB.

No company or firm or individual other than M/s _____ are authorized to tender and conclude the contract for the above goods manufactured by us, against this specific IFT. *(This para should be deleted in simple items where manufacturers sell the product through different stockiest.)*

We hereby extend our full guarantee and warranty as per Clause of the General Conditions of Contract for the goods and services offered for supply by the above firm against this IFB.

Yours faithfully,

(Name)

(Name of manufacturers)

Note: This letter of authority should be on the letterhead of the manufacturer and should be signed by a person competent and having the power of attorney to legally bind the manufacturer. It should be included by the Bidder in its tender.

* Modify this format suitably in case where manufacturer's warranty and guarantee are not applicable for the items for which bids are invited.

Note: This Form has to be completed and uploaded by Authorized Agents

Form-8: proforma for equipment and quality control employed by the manufacturer.

Date: DD-MMMM-YYYY

IFB No: **GSDM/GATI/IToT (08)-2023/09**

NAME OF THE BIDDER :

(Note : All details should relate to the manufacturer for the items offered for supply)

1. Name & full address of the Manufacturer
2. (a) Telephone & Fax No Office/Factory/Works
(b) Telex No. Office/Factory/Works
(c) Telegraphic address :
3. Location of the manufacturing factory.
4. Details of Industrial License, wherever required as per statutory regulations.
5. Details of important Plant & Machinery functioning in each dept. (Monographs & description pamphlets be supplied if available).
6. Details of the process of manufacture in the factory.
7. Details & stocks of raw materials held.
8. Production capacity of item(s) quoted for, with the existing Plant & Machinery
 - 8.1 Normal
 - 8.2 Maximum
9. Details of arrangement for quality control of products such as laboratory, testing equipment etc.
10. Details of staff:
 - 10.1 Details of technical supervisory staff in charge of production & quality control.
 - 10.2 Skilled labour employed.
 - 10.3 Unskilled labour employed.
 - 10.4 Maximum No. of workers (skilled & unskilled) employed on any day during the 18 months preceding the date of Tender.
11. Whether Goods are tested to any standard specification? If so, copies of original test certificates should be submitted in triplicate.
12. Is the Manufacturer registered with the Directorate General of Supplies and Disposals, New Delhi 110 001, India? If so, furnish full particulars of registration, period of currency etc. with a copy of the certificate of registration.

.....
Signature and seal of the Manufacturer

Note: This Form has to be completed and uploaded by the Bidder.

Form-9: Pending Litigation

Date: DD-MMMM-YYYY

IFB No: **GSDM/GATI/IToT (08)-2023/09**

Pending litigation and arbitration criterion shall apply.

2.1.2.1 Pending Litigation and Arbitration

Criteria	Compliance Requirements			Documents
Requirement	Single Entity	Joint Venture		
		All Partners Combined	Each Partner	One Partner
All pending litigation and arbitration, if any, shall be treated as resolved against the Bidder and so shall in total not represent more than Fifty (50) percent of the Bidder's net worth calculated as the difference between total assets and total liabilities.	must meet requirement by itself or as partner to past or existing Joint Venture	not applicable	must meet requirement by itself or as partner to past or existing Joint Venture	not applicable
				Form LIT – 1

Section 7

Forms & Formats

IFB NO: GSDM/GATI/IToT (08)-2023/09

Size of Operation (Average Annual Turnover)

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	Lead Bidder	
The minimum financial performance (Average Annual Turnover – AATO) of the OEM in any three (03) of last five audited Financial Year starting from 2018-19, 2019-20, 2020-21, 2021-22 and 2022-23, should not be less than One Hundred Crore (100 Crore). The AATO of Lead Bidder should not be less than Eight Crore (8 Crore) per year in any three financial years of last five audited financial years.	must meet requirement	Not applicable	not applicable	must meet. 100% of the requirement	Form FIN - 2

Financial Situation - Historical Financial Performance

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Channel Partners Combined	Each Channel Partner	One Channel Partner	
Submission of audited financial statements or, if not required by the law of the Bidder's country, other financial statements acceptable to the Purchaser, for the last Five (5) years to demonstrate the current soundness of the Bidder's financial position. As a minimum, the Bidder's net worth for the last year calculated as the difference between total assets and total liabilities should be positive	must meet requirement	not applicable	must meet requirement	not applicable	Form FIN - 1

Form-10: Manufacturer's Authorization

Date: DD-MMMM-YYYY

IFB No: **GSDM/GATI/IToT (08)-2023/09**

To:..... *[insert complete name of purchaser]*

WHEREAS

We *[insert complete name of manufacturer]*, who are official manufacturers of *[insert type of goods manufactured]*, having factories at *[insert full address of manufacturer's factories]*, do hereby authorize *[insert complete name of bidder]* to submit a bid the purpose of which is to provide the following goods, manufactured by us *[insert name and/or brief description of the goods]*, and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause of the General Conditions, with respect to the goods offered by the above firm.

Signed: *[insert signature(s) of authorized representative(s) of the manufacturer]*

Name:*[insert complete name(s) of authorized representative(s) of the manufacturer]* Title:*[insert title]*

Duly authorized to sign this Authorization on behalf of: *[insert complete name of manufacturer]*

Dated on _____ day of _____, _____ *[insert date of signing]*

Section 7

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IFB NO: GSDM/GATI/IToT (08)-2023/09

Form-11: Bidder's Qualification

Date: DD-MMMM-YYYY

IFB No: **GSDM/GATI/IToT (08)-2023/09**

To establish its qualifications to perform the contract in accordance with Section 3 (Evaluation and Qualification Criteria), the Bidder shall provide the information requested in the corresponding Information Sheets included hereunder.

Bidder's Information Sheet

Bidder's Information	
Bidder's legal name	
In case of Joint Venture, legal name of each partner	
Bidder's country of constitution	
Bidder's year of constitution	
Bidder's legal address in country of constitution	
Bidder's authorized representative (name, address, telephone numbers, fax numbers and e-mail address)	
Attached are copies of the following documents: <ul style="list-style-type: none"> <input type="checkbox"/> 1. In case of single entity, articles of incorporation or constitution of the legal entity named above <input type="checkbox"/> 2. Authorization to represent the firm or Joint Venture named above, in accordance with ITB <input type="checkbox"/> 3. In case of Joint Venture, letter of intent to form Joint Venture or Joint Venture agreement, <input type="checkbox"/> 4. In case of a government-owned enterprise, any additional documents not covered under 1 above required to comply with 	

Signature and Seal of the Bidder:-----

Form-12: Joint Venture Information Sheet

Date: DD-MMMM-YYYY

IFB No: **GSDM/GATI/IToT (08)-2023/09**

Each member of the Joint Venture must fill out this form separately.

Joint Venture Information	
Bidder's legal name	
Joint Venture Partner's legal name	
Joint Venture Partner's country of constitution	
Joint Venture Partner's year of constitution	
Joint Venture Partner's legal address in country of constitution	
Joint Venture Partner's authorized representative information (name, address, telephone numbers, fax numbers and email address)	
Attached are copies of the following documents: <ul style="list-style-type: none"> <input type="checkbox"/> 1. Articles of incorporation or constitution of the legal entity named above, in accordance with ITB 4.1 and ITB 4.2 <input type="checkbox"/> 2. Authorization to represent the firm named above, in accordance with ITB <input type="checkbox"/> 3. In the case of government-owned enterprise, documents establishing legal and financial autonomy and compliance with commercial law, in accordance with ITB 4.5 	

Signature and Seal of the Bidder:-----

Form-13: Pending Litigation and Arbitration

Date: DD-MMMM-YYYY

IFB No: **GSDM/GATI/IToT (08)-2023/09**

Each Bidder must fill out this form if so required under Criterion 2.1.2 of Section 3 (Evaluation and Qualification Criteria) to describe any pending litigation or arbitration formally commenced against it. In case of joint ventures, each Joint Venture Partner must fill out this form separately, and provide the Joint Venture Partner name below:

Joint Venture Partner: _____

Pending Litigation and Arbitration

Choose one of the following:

- ☐ No pending litigation and arbitration.
- ☐ Below is a description of all pending litigation and arbitration against the Bidder (or each Joint Venture member if Bidder is a Joint Venture).

Year	Matter in Dispute	Value of Pending Claim in INR	Value of Pending Claim as a Percentage of Net Worth

Signature and Seal of the Bidder:-----

Form-14: Historical Financial Performance (FIN 1)

Date: DD-MMMM-YYYY

IFB No: **GSDM/GATI/IToT (08)-2023/09**

Each Bidder must fill out this form. In case of joint ventures, each Joint Venture Partner must fill out this form separately, and provide the Joint Venture Partner name below:

Joint Venture Partner: _____

Information from Balance Sheet

Financial Data for Previous FY Years [INR]	Year 1	Year 2	Year 3
Total Assets (TA)			
Total Liabilities (TL)			
Net Worth = TA-TL			
Current Assets (CA)			
Current Liabilities (CL)			
Working Capital = CA - CL			

Most Recent Working Capital		To be obtained for the most recent year and carried forward to FIN-3 Line 1; in case of joint ventures, to the corresponding Joint Venture Partner's FIN-3.
-----------------------------	--	---

Information from Income Statement

Total Revenues			
Profits Before Taxes			
Profits After Taxes			

- ☐ Attached are copies of financial statements (balance sheets including all related notes, and income statements) for the last ____ years, as indicated above, complying with the following conditions:
- Unless otherwise required by Section 3 of the Bidding Documents, all such documents reflect the financial situation of the legal entity or entities comprising the Bidder and not the Bidder's parent companies, subsidiaries, or affiliates.
 - Historical financial statements must be audited by a certified accountant.
 - Historical financial statements must be complete, including all notes to the financial statements.
 - Historical financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).

Signature and Seal of the Bidder:-----

Form-15: Average Annual Turnover (FIN 2)

Date: DD-MMMM-YYYY

IFB No: **GSDM/GATI/IToT (08)-2023/09**

Each Bidder must fill out this form. The information supplied should be the Annual Turnover of the Bidder or each member of a Joint Venture in terms of the amounts billed to clients for each year for work in progress or completed. In case of joint ventures, each Joint Venture Partner must fill out this form separately, and provide the Joint Venture Partner name below:

Joint Venture Partner: _____

Annual Turnover Data for the Last Five (5) Years			
#	Financial Years		INR Lakh
Average Annual Turnover (AATO)			

Signature and Seal of the Bidder:-----

Form-16: Contractual Experience (EXP 1)

Fill out one (1) form per contract.

Contractual Experience		
Contract No. of	Contract Identification	
Award Date	Completion Date	
Role in Contract	<input type="checkbox"/> Manufacturer <input type="checkbox"/> Supplier <input type="checkbox"/> Subcontractor	
Total Contract Amount		
If partner in a joint venture or subcontractor, specify participation of total contract amount	Percent of Total	Amount
Purchaser's name Address, Telephone/Fax Number, E-mail		
Description of the similarity in accordance with Criterion 2.2.1 of ITB		
<p>Minimum contractual experience of successful completion of single/multiple equipment supplies contract/ Work order in Fitter and allied Trade, in one of the financial years in last five years starting from FY: 2018-19, 2019-2020, 2020-2021, 2021-2022 and 2022-23. If the equipment contract/work order (either single contract amounts to 10.00 Cr and/or split into two numbers each amounts to 4.00 Crore or more and issued in same financial year), value/totalling to not less than Ten (10.00 Cr) Crore as indicated at 2.2.4(2) contractual experience with nature, and complexity similar to the scope of supply described in Scope and Schedule of Supply</p>		

Signature and Seal of the Bidder:-----

Form-17: Technical Experience (EXP 2)

Fill out one (1) form per contract.

Technical Experience	
Name of Product	
Manufacturer:	Address and Nationality:
Requirements in accordance with Pre-Qualification Criterion	
(i) The bidder (either OEM and/or authorized Channel Partner) should have been in business of manufacturing and supply of Welding and/or allied Trades, (a) for a minimum of 5 years, and (b) must have valid ISO 9000 certification	
(ii) The lead bidder(s) may be an OEM or its Channel Partner (CP) or Lead Partner (LP) of combined Joint Venture (JV) of channel partners (upto three only). The bidder (OEM/LP/JV) must have manufactured, tested and supplied at least 50 % of the required quantity listed under category of 'General Shop Outfit' as indicated under the 'Scope and supply schedule' of this tender	
(iii) The minimum financial performance (Average Annual Turnover – AATO) of the OEM in any three (03) of last five audited Financial Year starting from 2018-19, 2019-20, 2020-21, 2021-22 and 2022-23, should not be less than One Hundred Crore (100 Crore) . The AATO of Lead Bidder should not be less than Eight Crore (8 Crore) per year in any three financial years of last five audited financial years	
(iv) The bidder must have positive net worth and should be Profit making in any three of last five audited financial years ending on 31st March, 2023	

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(v) The Bidder must submit a Bid Security/EMD along-with the Technical Bid amount of ₹ 36,41,370 /- (Rupees Thirty-Six Lakh Fourty One Thousand Three Hundred Seventy only)	
(vi)The bidder must provide compliance sheet point/item wise by mentioning make/model/Brand of the items along with the detailed specification. The offered items should confirm the specification of tender and 100% items passed in BOQ with given tender specification.	
(vii) The bidder should not have been blacklisted or proceeding underway by Government of India / Government of Gujarat/ any other state.	

Signature and Seal of the Bidder:-----

Form-18: JOINT VENTURE AGREEMENT

Date: DD-MMMM-YYYY

IFB No: **GSDM/GATI/IToT (08)-2023/09**

THIS AGREEMENT (the "agreement") is made as of the XX day of XXX 202X, by and between **FIRST PARTY** a having its office situated at ADDRESS through its Proprietor XXX, Aged XX Adult, Resident of ADDRESS (the "First Party"), and **SECOND PARTY**, having its factory situated at ADDRESS through its ADDRESS, Aged XX Adult, Resident of ADDRESS (the "Second Party").

WHEREAS the first party is engaged in the business of trading educational equipment, machines and trainers, software.

WHEREAS the second party is engaged in the business of manufacturing and supplying Lab Equipment, Customized solutions in automations etc.

WHEREAS the parties wish to join together in a joint venture for the purpose of Tender no. XX

NOW THEREFORE BE IT RESOLVED, in consideration of the mutual convents, promises, warranties and other good and valuable consideration set forth herein, the Parties agree as follows:

1. Formation. The joint venture formed pursuant to this Agreement (the "joint venture") shall do business under the name **FIRST PARTY** and shall have its legal address at ADDRESS. The joint venture shall be considered in all respects a joint venture between the parties, and nothing in this agreement shall construed to create a partnership or any other fiduciary relationship between the parties.

2. Purpose. The joint venture Shall be formed for the purpose of XXXXXXXXXXXXXXXX

3. Management. The Joint Venture shall be managed according to the following terms: Jointly done by mutual understanding & equally responsible to execute order with equally responsibility.

4. No Exclusivity. Neither Party shall be obligated to offer any business opportunities or to conduct business exclusively with the other Party by virtue of this Agreement.

5. Term. This Agreement shall remain in full force and effect, till the purpose of this joint venture with regard to above referred tender is over. The agreement thereafter shall be automatically terminated. At any time, this Agreement may also be terminated by written intimation by either party. In the event of this Agreement either expires or is terminated, the Joint Venture shall be terminated as well, and all Parties' obligations under this Agreement with respect to the operation and administration of the Joint Venture shall no longer have force or effect.

6. Confidentiality. Any information pertaining to either Party's business to which the other Party is exposed as a result of the relationship contemplated by this Agreement shall be considered to be "Confidential Information." Neither Party may disclose any Confidential Information to any person or entity, except as required by law, without the express written consent of the affected Party.

7. Further Actions. The Parties hereby agree to execute any further documents and to take any necessary actions to complete the formation of the Joint Venture.

8. Assignment. Neither Party can assign or transfer their respective rights or obligations under this Agreement without prior written consent from the other Party. Except that if the assignment or transfer is pursuant to a sale of all or substantially all of a Party's assets or is pursuant to a sale of a Party's business, then no consent shall be required. In the event that an assignment or transfer is made pursuant to either a sale of all or substantially all of the Party's assets or pursuant to a sale of the business, then written notice must be given of such transfer within 10 days of such assignment or transfer.

9. Governing Law. This Agreement shall be construed in accordance with, and governed in all respects by, the laws of the State of XXXXX without regard to conflicts of law principles.

10. Counterparts. This Agreement may be executed in several counterparts, each of which shall constitute an original and all of which, when taken together, shall constitute one agreement.

11. Severability. If any part parts of this Agreement or shall be held unenforceable for any reason, the remainder of this Agreement shall continue in full force and effect. If any provision of this Agreement is deemed invalid or unenforceable by any court of competent jurisdiction, and if limiting such provision would make the provision valid, then such provision shall be deemed to be construed as so limited

12. Notice. Any notice required or otherwise given pursuant to this Agreement shall be in writing and mailed certified return receipt requested, postage prepaid, or delivered by overnight delivery service, addressed as follows:

If to First Party:

If to Second Party:

13. Headings. The headings for section herein are for convenience only and shall not affect the meaning of the provisions of this Agreement.

14. Entire Agreement. This Agreement constitutes the entire agreement between First Party, Second Party and Third Party and supersedes any prior understanding or representation of any kind preceding the date of this Agreement. There are no other promises, conditions, understandings or other agreements, whether oral or written, relating to the subject matter of this Agreement.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed the day and year first above written.

FIRST PARTY

SECOND PARTY

Form-19: Technical Bid Submission Sheet

-- Note --

The Bidder must accomplish the Price Bid Submission Sheet on its letterhead clearly showing the bidder's complete name and address.

Date:

IFB No.:

To: _____

We, the undersigned, declare that:

- a) We have examined and have no reservations to the Bidding Document, including the Addenda issued in accordance with Instructions to Bidders (ITB) Clauses
- b) We offer to supply in conformity with the Bidding Document and in accordance with the delivery schedule specified in Section 6(Schedule of Supply), the following Goods and Related Services.
- c) Our Bid consisting of the Technical Bid and the Price Bid shall be valid for a period of _____ days from the date fixed for the bid submission deadline in accordance with the Bidding Document, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
- d) Our firm, including any subcontractors or suppliers for any part of the Contract, have Nationalities from eligible countries in accordance with ITB
- e) We, including any subcontractors or suppliers for any part of the contract, do not have any conflict of interest in accordance with ITB Clause
- f) We are not participating, as a Bidder in more than one Bid in this bidding process in accordance with ITB Clause, other than alternative offers in accordance with the Bidding Document.
- g) Our firm, its affiliates or subsidiaries, including any subcontractors or suppliers for any part of the Contract, has not been declared ineligible by the DET, under the Purchaser's country laws or official regulations or by an act of compliance with a decision of the United Nations Security Council.
- h) [We are not a government-owned enterprise] / [We are a government-owned enterprise but meet the requirements of ITB Clause]
- i) We agree to permit GSDM or its representative to inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors appointed by GSDM

3 Use one of the two options as appropriate.

Name [*Insert complete name of the person signing the Bid*] :

In the capacity of [*Insert legal capacity of person signing the Bid*] :

Signed [*Insert signature of person whose Name and capacity shown above*] :

Duly authorized to sign the Bid for and on behalf of [*Insert complete Name of the Bidder*] :

Date :

Form-20: Bid Security

[insert bank's name, and address of issuing branch or office]

Beneficiary: [insert name and address of purchaser]

Date: [insert date]

Bid Guarantee No.: [insert number]

We have been informed that [insert name of the bidder]. (hereinafter called "the Bidder") has submitted to you its bid dated [insert date]. (hereinafter called "the Bid") for the execution of [insert name of contract]. under Invitation for Bids No. [insert IFB number]. ("the IFB").

Furthermore, we understand that, according to your conditions, bids must be supported by a bid guarantee.

At the request of the Bidder, we [insert name of bank]. hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of [insert amount in figures][insert amount in words]. upon receipt by us of your first demand in writing accompanied by a written statement stating that the Bidder is in breach of its obligation(s) under the bid Conditions, because the Bidder

- (a) has withdrawn its Bid during the period of bid validity specified by the Bidder in the Technical Bid Submission Sheet and Price Bid Submission Sheet; or
- (b) does not accept the correction of errors in accordance with the Instructions to Bidders (hereinafter "the ITB"); or
- (c) having been notified of the acceptance of its Bid by the Purchaser during the period of bid validity, (i) fails or refuses to execute the Contract Agreement; or (ii) fails or refuses to furnish the Performance Security, in accordance with the ITB.

This guarantee will expire: (a) if the Bidder is the successful Bidder, upon our receipt of copies of the Contract Agreement signed by the Bidder and the Performance Security issued to you upon the instruction of the Bidder; or (b) if the Bidder is not the successful Bidder, upon the earlier of (i) our receipt of a copy of your notification to the Bidder of the name of the successful Bidder, or (ii) 28 days after the expiration of the Bidder's bid.

Consequently, any demand for payment under this guarantee must be received by us at the office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees

Name

In the capacity of

Duly authorized to sign the Bid Security for and on half

of

Signed

Form-21: Price Schedule for Goods and related Services/Works

The bidder must consider following guidelines while filling the price schedule -

- The period of validity of the *Warranty/Comprehensive Maintenance Contract (CMC) shall be Five (05) years* from the date of the acceptance of the Testing and Inspection report of items supplied.
- Offered prices should be *exclusive of GST* and inclusive of levies such as Excise, Insurance, transportation etc (as indicated in the Scope of Supply and Schedule)
- A discount if offered should not be mentioned separately. It should be included in the offered price.*

Date: DD-MMMM-YYYY

IFB No: **GSDM/GATI/IToT (08)-2023/09**

Name of Bidder _____ Page ____ of ____

#	Name of the Item/ Equipment	UoM	Total Qty	Unit Price (in ₹)	Total Price per Item (in ₹)
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5 = (3 x 4)</i>
1	SS and SC center lathe (all geared)	Nos.	2		
2	Design, supply, installation, commissioning, testing and training of Hydraulic / Electro-Hydraulic/ Analysis and control of Hydraulics.	Set	1		
3	Design, supply, installation, commissioning, testing and training of Pneumatic / Electro-Pneumatic/ Analysis and control of Pneumatic.	Set	1		
4	Design, supply, installation, commissioning, testing and training of Advance Factory Automation Training kits	Set	1		
5	Application Learning Systems	Set	1		
6	Hydraulic Power Saw Machine	Set	1		
7	CNC turn Centre	Set	1		
8	Universal Milling machine with minimum specification		1		
9	Vertical Milling Machine	Nos.	1		
10	CNC Machining Centre	Nos.	1		
11	CNC milling tools to suit above machine (Sl. No. 187): to accommodate face cutter, shell end mill cutter, taper shank and parallel shank drills/cutters, Reamers. taps with suitable tool holders.	Set	2		
12	Surface Grinding Machine	Nos	1		
13	Universal Tool and Cutter Grinding Machine	Nos	1		
14	Interchangeable ratchet socket set	Set	1		
15	Hand reamer adjustable cover	Set	1		
16	Hand reamer taper	Set	1		
17	Reamer parallel	No	1		
18	Set combination	Nos	2		
19	Micrometer (0-25)	Nos	3		
20	Micrometer (25-50)	Nos	3		
21	Micrometer (50-75)	Nos	2		
22	Micrometer Inside (0-25)	No	1		
23	Vernier calliper (150MM)	Nos	3		
24	Vernier height gauges	No.	1		

Section 7

Forms & Formats

IFB NO: GSDM/GATI/IToT (08)-2023/09

#	Name of the Item/ Equipment	UoM	Total Qty	Unit Price (in ₹)	Total Price per Item (in ₹)
25	Vernier bevel protractor	No.	1		
26	Drill Twist Taper Shank	Set	1		
27	Drill chuck	No.	1		
28	Wheel dresser	No.	1		
29	Machine vice (4 Inch)	No.	1		
30	Machine vice (6 Inch)	No.	1		
31	Sleeve drill Morse	Set	1		
32	Bench Vice	Nos.	20		
33	Leg Vice	Nos.	2		
34	Dial Test Indicator	No.	1		
35	Lathe Tools HSS Tipped set	No.	2		
36	Lathe Tools Bit HSS	Nos	13		
37	Counter Boring and Counter sinking Tool	Set	2		
38	Arm strong type bit holder RH	Nos	2		
39	Arm strong type bit holder LH	Nos	2		
40	Arm strong type bit holder Straight	Nos	2		
41	Straight edge	Nos	2		
42	Surface Plate	Nos	2		
43	Marking table	No	1		
44	Universal scribing block	Nos	2		
45	V- block pair	Nos	2		
46	Square adjustable	Nos	2		
47	Angle plate	Nos	2		
48	Spirit Level	No.	1		
49	Portable hand drill (electric)	Nos	2		
50	Twist Drill straight shank	Set	1		
51	Twist Drill straight shank	Set.	1		
52	Taps and dies complete set	No	1		
53	Taps and dies complete set	No	1		
54	Taps and dies complete set in box	No	1		
55	Pipe wrench	No	1		
56	Pipe wrench	No	1		
57	Pipe vice	Nos	2		
58	Adjustable pipe tap set BSP with die set cover pipe size	No.	1		
59	Wheel dresser(1for4units)	No.	1		
60	Machine vice	No	1		
61	Machine vice	No	1		
62	Sleeve drill (Morse Taper)	Set	1		
63	Bench Vice	Nos	25		
64	Leg Vice	Nos	2		
65	Gauge slip as Johnson metric set	Set	1		
66	Carbide wear block	Each	2		
67	Gauge snaps	Set	1		
68	Gauge plug single ended	Set	1		
69	Gauge Telescopic	No	1		
70	Dial Vernier Caliper	No	1		
71	Vernier Micrometer	No	1		
72	Depth Micrometer	No	1		

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Forms & Formats

IFB NO: GSDM/GATI/IToT (08)-2023/09

#	Name of the Item/ Equipment	UoM	Total Qty	Unit Price (in ₹)	Total Price per Item (in ₹)
73	Vernier Caliper	No	1		
74	Comparators Stand with Dial Indicator	No	1		
75	Surface Roughness comparison plates	No	1		
76	Digital Vernier Caliper	No	1		
77	Digital Outside Micrometer	No	1		
78	Digital Dial Test Indicator	No	1		
79	Hardness Tester	Nos	1		
80	Flat tongs	Nos	4		
81	Round tongs	Nos	2		
82	Straight snips	Nos	6		
83	Bend snips	Nos	6		
84	Solder bit /soldering iron hatchet type	Nos	4		
85	Anvil	Nos	2		
86	Swage block	No	1		
87	Trammel	Nos	2		
88	Hand groover	Each	1		
89	Portable forge with hand blower	No	1		
90	Gas cutting torch with different noses	No	1		
91	Arc welding table with positioner	No	2		
92	Gas welding table with fire bricks	No	1		
93	Grinding attachment for Lathe	Set	1		
94	Dial Test Indicator	No.	1		
95	Sine bar	No.	1		
96	Sine bar	No	1		
97	Micron suitable to measure minimum 300mm distance. (Optional)	No.	1		
98	Surface roughness tester	No.	1		
99	Air conditioner	Nos.	10		
100	Drilling Machine pillar type with drill chuck & key.	Nos.	2		
101	Pedestal Grinder Double End type.	Nos.	2		
102	Power Saw Machine Stroke length 160 mm	No.	1		
103	Fly Press 4T capacity	No.	1		
104	Arc welding transformer-single phase,200 Amps. (with cable, electrode holder and all other accessories)	Nos.	2		
105	Oxy-acetylene gas welding plant with all accessories	Set	1		
106	TIG Welding Machine	Set	1		
107	Co-ordinate Measuring Machine having accuracy of 5	Nos	1		
108	Workbench	Nos	6		
109	Special tools and equipment	Nos	1		
110	Tool holder to suit the CNC machine (Sl. No. 183) for Turning, Threading (external & internal), Grooving (external & internal), Parting off operations, Drilling, Boring, Undercutting (with 20 inserts for each operation)	Nos	2		
111	worktable to mount small machines	Nos	6		

Section 7

Forms & Formats

IFB NO: GSDM/GATI/IToT (08)-2023/09

#	Name of the Item/ Equipment	UoM	Total Qty	Unit Price (in ₹)	Total Price per Item (in ₹)
112	worktable to mount small machines	Nos	2		
113	worktable to mount small machines	Nos	2		
114	work benches with bench vices	Nos.	1		
115	DG Set (Power Backup)	Nos.	1		
116	Engineering Drawing Trainees Tool Kit	Set	26		
117	Air conditioning for classroom	Nos.	1		
118	Air Conditioner	Nos	4		
119	Try Square	Nos	26		
120	Straight scribe	Nos	26		
121	Flat File	Nos	26		
122	Flat File	Nos	26		
123	Hacksaw frame fixed	Nos	26		
124	Outside calliper	Nos	5		
125	Inside calliper	Nos	5		
126	Caliper	Nos	5		
127	Divider	Nos	5		
128	Screwdriver	Nos	5		
129	Cold Chisel Flat	Nos	5		
130	Ball pein Hammer	Nos	13		
131	Ball pein Hammer	Nos	13		
132	Half round File	Nos	13		
133	Dot punch	Nos	13		
134	Warding File	Nos	4		
135	Knife edge File	Nos	4		
136	File saw	Nos	4		
137	File feather edge	Nos	4		
138	File triangular	Nos	2		
139	File round	Set	8		
140	File square	Nos	4		
141	File square	Nos	4		
142	Feeler gauge	Set	1		
143	File triangular	Nos	6		
144	File Swiss type needle	Set	2		
145	File half round	Nos.	6		
146	File round	Nos	4		
147	File Card	Nos	6		
148	Oil Can	Nos	2		
149	Plier combination	Nos	2		
150	Spanner Metric—worth D.E. set of 10 pcs.	Nos	6		
151	Spanner adjustable	Set	2		
152	Box spanner	Set	1		
153	Clamp toolmaker	Nos	2		
154	Clamp "C"(100MM)	Nos	2		
155	Clamp "C"(200MM)	Nos	2		
156	Scraper flat	Nos	6		
157	Scraper 3 corner	Nos	6		
158	Scraper half round	Nos	6		
159	Chisel cold	each	6		
160	Chisel cold	Nos	6		

Section 7

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IFB NO: GSDM/GATI/IToT (08)-2023/09

#	Name of the Item/ Equipment	UoM	Total Qty	Unit Price (in ₹)	Total Price per Item (in ₹)
161	Chisel cold	Nos	6		
162	Extractor stud	Nos	2		
163	Screw pitch gauge	No.	1		
164	Wire gauge, metric standard	No.	1		
165	Wing Compass	Nos.	2		
166	Hand Hammer	Nos	2		
167	Radius Gauges (Assorted)	Nos	13		
168	Engineers Try Square (Knife wedge)	Set	1		
169	Rule steel(300MM)	Nos	4		
170	Rule steel(600MM)	Nos	4		
171	Letter Punch	No.	1		
172	Number Punch set	No	1		
173	Wing Compass	Nos	2		
174	Hand Hammer	Nos	2		
175	Engineers Try Square (Knife wedge)	Set	1		
176	Radius Gauges(Assorted)	Nos.	13		
177	CAD software (latest version)	Nos	13		
178	Desktop computer	Nos	13		
179	UPS	Nos.	13		
180	Smart Interactive Touch screen TV / Monitor	Nos	1		
181	Surround speakers	Set	1		
182	All in one copier	Nos	3		
183	Computer	Nos.	3		
184	Desktop Computer	Nos.	26		
185	Auto-CAD Software	Users	26		
186	Laser Jet printer	Nos	1		
187	UPS	Nos	26		
188	LCD Projector	Nos	1		
189	Computer System with latest configuration with	Set	1		
190	UPS	Nos	1		
191	LCD Projector Screen	Nos	1		
192	Document Camera / Visualizer	Nos	1		
193	Smart Board / Inter Active Board	Set	2		
194	Over Head Projector	Nos	2		
195	Video Camera with stand	Nos	1		
196	Printer cum Scanner	Nos	1		
197	Laptop with all latest OS	Nos	1		
198	Safety chart sand posters	No.	10		
199	White board with magnetic duster	No	1		
200	First aid box	No.	1		
201	White Board	Nos	1		
202	Pin board	Nos.	4		
203	White board		1		
204	Wall Clock	Nos	1		
205	Wall charts, Transparencies and DVDs related to the trade	Set	1		
206	Safety goggles.	Nos	26		
207	Fire Extinguisher	Nos.	2		
208	Fire Buckets	Nos.	2		

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IFB NO: GSDM/GATI/IToT (08)-2023/09

#	Name of the Item/ Equipment	UoM	Total Qty	Unit Price (in ₹)	Total Price per Item (in ₹)
209	Fire Extinguisher	Nos	2		
210	Fire Buckets	Nos	2		
211	Leather gloves	Pair	4		
212	Leather apron	Nos	4		
213	Asbestos gloves	Pair	4		
214	Equipment for conducting BLS (Basic Life Support) training		1		
215	Equipment for conducting BLS (Basic Life Support) training		1		
216	Stone oil	Nos	4		
217	stone Carborundum	Nos	2		
218	Consumables - Fitter consumable parts, items.	Set	1		

Name [insert complete name of person signing the Bid]

In the capacity of [insert legal capacity of person signing the Bid]

Signed [insert signature of person whose name and capacity are shown above]

Duly authorized to sign the Bid for and on behalf of

[insert complete name of the Bidder]

Date [insert date of signing]

Form-22: Price Schedule for Related Services/Works

Date: DD-MMMM-YYYY

IFB No: **GSDM/GATI/IToT (08)-2023/09**

Name of Bidder:

Page: of

Item No.	Description of allied Services/Works to be performed during Installation & Commissioning (To be indicated by the Bidder)	UoM	Quantity	Unit Cost (in ₹)	Total Cost (in ₹)
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5=3 x 4</i>
1.	Related services/works not mentioned in the BoQs but to be performed during Installation & commissioning of Lab/Workshop equipment under General Shop Outfit (GSOF) and Other Supporting Training Equipment (OSTE) category etc , or other related services/works including minor civil, fabrication and/or electrical works at destination/locations/IToT.				
2.	Installation & commissioning of Computers/Laptops, Printers, LCD Projectors, Audio Visual equipment, UPS, LAN/Network connections and other ITE related equipment. The related services/works includes installations of hardware/Software at respective locations but not indicated in the BoQ.				

Notes:

The above **description** of allied works/services are indicative purpose only; however, Bidders are required to specify/offer for the actual services/works under this contract expected to be performed during installation & commissioning of supplies and not included in the Scope of Supply and allied Works/Services. This price schedule will not be part of the financial/Price bid.