TENDER DOCUMENT

FOR

SUPPLY, INSTALLATION & COMMISSIONING OF LABORATORY EQUIPMENT FOR

MECHANICAL ENGINEERING DEPARTMENT

AT GOVERNMENT POLYTECHNIC, SUKMA - 494111

(From 03.11.2021 to 02.12.2021)

NIT No./GPS/Store/Tender-ME/2021/297 Sukma, Dated 30.10.2021



Government Polytechnic, Sukma

At Kumharras, Sukma, Malkangiri Road, Tah- Sukma Distt - Sukma – 494111

> Website: <u>www.gpolysukma.in</u> Email Id: <u>gpolysukma@gmail.com</u>

NOTICE INVITING TENDER

Government Polytechnic, Sukma, Chhattisgarh invites separate sealed tenders by **SPEED POST** only for supply, installation and commissioning of Laboratory Equipments/ Machinery for **Mechanical Engineering Department** from **registered OEM** with manufacturing facility in India **or Authorized Dealer /Supplier /Agency /Distributor /Stockiest of OEM** as per following details -

SI. No.		1 4 4	Tender Document Fees in INR	EMD In INR
1.	Supply, Installation & Commissioning of Laboratory Equipment/ Machinery for Mechanical Engineering Department	37,00,000/-	1,000/-	1,20,000/-

Important Events and time schedule for this tender are as follows:-

Particulars	From Date &Time	To Date & Time	Remark
Date of issue of Notice Inviting Tender	03-11-2021 10:00 am		
Period of availability of Tender Document on website	03-11-2021 03:00 pm	02-12-2021 03:00 pm	http://www.gpolysukma.in https://cgdteraipur.cgstate.gov.in
Submission of queries in writing/ on email by bidders	04-11-2021 11:00 am	27-11-2021 05:00 pm	Email - gpolysukma@gmail.com
Displaying Clarifications /Responses on website by GPS regarding queries received	28-11-2021 05:00 pm	30-11-2021 03:00 pm	http://www.gpolysukma.in
Documentary Submissions (if any) by bidder as per clarification	02-12-2021 03:00 pm		
Opening of Technical Bid	02-12-2021 04:00 pm		Govt. Polytechnic, Sukma At Kumharras, Sukma, Malkangiri Road, Tah – Sukma, Distt – Sukma - 494111
Declaration of Eligible Bidders	13-12-2021 11:00 am		http://www.gpolysukma.in
Opening of Financial Bid & Issuance of LoI	14-12-2021 03:00 pm		
Submission of LoA, Performance Security & Contract Agreement	14-12-2021 04:00 pm	23-12-2021 05:00 pm	
Returning back of EMD (by Speed Post only) of not eligible bidders by Speed post only	15-12-2021 11:00 pm	03-01-2022 05:00 pm	

Tender document can be downloaded from institute website <u>www.gpolysukma.in</u> & <u>https://cgdteraipur.cgstate.gov.in</u> only, from **03.11.2021**, **03:00 pm** onwards.

Tender Document Fees (TDF) and Earnest Money Deposit (EMD) will be acceptable only in the form of Demand Draft of Nationalized Bank in the favor of **Principal, Government Polytechnic, Sukma** payable at Sukma - 494111, Chhattisgarh.

Last date for submission of tenders is 02.12.2021 till 03:00 pm.

Government Polytechnic, Sukma reserves all rights to accept/reject any or all tenders in full/part without assigning any reasons.

CHECK LIST

To ensure that your tender submitted to GPS is complete in all respects, please go through the following checklist & tick mark for the enclosures attached with your tender:-

Envelope -A 01 Separate Demand Draft for Tender Document Fees 02 Separate Demand Draft for Earnest Money Deposit 03 ANNEXURE -05 04 The original tender document duly signed & with stamp on Each page, as a confirmation of acceptance of Terms & Conditions and which is complete in all respects. Envelope -B 05 TECHNICAL PROPOSAL SUBMISSION LETTER on original letter head of firm (ANNEXURE -01) 06 PROFILE OF THE BIDDER(ANNEXURE -02) 07 Registration proof of the bidder firm 08 Authorization Certificate of OEM in the name of bidder(if Any) 09 Copy of PAN in the name of bidder 10 Copy of GSTIN in the name of bidder 11 ORIGINAL GENERAL POWER OF ATTORNEY as per ANNEXURE -03 12 ORIGINAL CERTIFICATE OF AVERAGE TURNOVER as per ANNEXURE -04 13 ORIGINAL CERTIFICATE OF AVERAGE TURNOVER as per ANNEXURE -07 duly signed by Chartered Accountant 14 ORIGINAL EXPERIENCE CERTIFICATE as per ANNEXURE -07 duly signed by Chartered Accountant 15 Performance Certificates of equipments delivered at any Institutes of National Importance. Envelope -C 16 TECHNICAL BID as per ANNEXURE -08 17 Media Containing	S.no.	Description	Complied (Yes/No)	Page No.
02 Separate Demand Draft for Earnest Money Deposit 03 ANNEXURE -05 04 The original tender document duly signed & with stamp on Each page, as a confirmation of acceptance of Terms & Conditions and which is complete in all respects. Envelope -B 05 TECHNICAL PROPOSAL SUBMISSION LETTER on original letter head of firm (ANNEXURE -01) 06 PROFILE OF THE BIDDER(ANNEXURE -02) 07 Registration proof of the bidder firm 08 Authorization Certificate of OEM in the name of bidder(if Any) 09 Copy of PAN in the name of bidder 10 Copy of GSTIN in the name of bidder 11 ORIGINAL GENERAL POWER OF ATTORNEY as per ANNEXURE -03 12 ORIGINAL CERTIFICATE OF AVERAGE TURNOVER as per ANNEXURE -06 duly signed by Chartered Accountant 14 ORIGINAL CERTIFICATE OF AVERAGE TURNOVER as per ANNEXURE -07 duly signed by Chartered Accountant 15 Performance Certificates of equipments delivered at any Institutes of National Importance. Envelope -C 16 TECHNICAL BID as per ANNEXURE -08 17 Media Containing soft copy of ANNEXURE -08 18 The CD/DVD containing complete videos of performances and observations of required equipments 19 Complete brochure/booklet		Envelope -A		
03 ANNEXURE -05 04 The original tender document duly signed & with stamp on Each page, as a confirmation of acceptance of Terms & Conditions and which is complete in all respects. Envelope -B 05 TECHNICAL PROPOSAL SUBMISSION LETTER on original letter head of firm (ANNEXURE -01) 06 PROFILE OF THE BIDDER(ANNEXURE -02) 07 Registration proof of the bidder firm 08 Authorization Certificate of OEM in the name of bidder(if Any) 09 Copy of PAN in the name of bidder 10 Copy of GSTIN in the name of bidder 11 ORIGINAL GENERAL POWER OF ATTORNEY as per ANNEXURE -03 12 ORIGINAL GENERAL POWER OF ATTORNEY as per ANNEXURE -04 13 ORIGINAL CERTIFICATE OF AVERAGE TURNOVER as per ANNEXURE -06 duly signed by Chartered Accountant 14 ORIGINAL CERTIFICATE OF AVERAGE TURNOVER as per ANNEXURE -07 duly signed by Chartered Accountant 15 Performance Certificates of equipments delivered at any Institutes of National Importance. Envelope -C 16 TECHNICAL BID as per ANNEXURE -08 17 Media Containing soft copy of ANNEXURE -08 18 The CD/DVD containing complete videos of performances and observations of required equipments 19 Complete brochure/	01	Separate Demand Draft for Tender Document Fees		
04 The original tender document duly signed & with stamp on Each page, as a confirmation of acceptance of Terms & Conditions and which is complete in all respects. 05 TECHNICAL PROPOSAL SUBMISSION LETTER on original letter head of firm (ANNEXURE -01) 06 PROFILE OF THE BIDDER(ANNEXURE -02) 07 Registration proof of the bidder firm 08 Authorization Certificate of OEM in the name of bidder(if Any) 09 Copy of PAN in the name of bidder 10 Copy of GSTIN in the name of bidder 11 ORIGINAL GENERAL POWER OF ATTORNEY as per ANNEXURE -03 12 ORIGINAL GENERAL POWER OF ATTORNEY as per ANNEXURE -06 duly signed by Chartered Accountant 13 ORIGINAL CERTIFICATE OF AVERAGE TURNOVER as per ANNEXURE -06 duly signed by Chartered Accountant 14 ORIGINAL EXPERIENCE CERTIFICATE as per ANNEXURE -07 duly signed by Chartered Accountant 15 Performance Certificates of equipments delivered at any Institutes of National Importance. Envelope -C 16 TECHNICAL BID as per ANNEXURE -08 17 Media Containing complete videos of performances and observations of required equipments 19 Complete brochure/booklet of the equipments delivered by the company which must include our listed items. 20 FINANCIAL BID as per ANNEXURE -09 <td>02</td> <td>Separate Demand Draft for Earnest Money Deposit</td> <td></td> <td></td>	02	Separate Demand Draft for Earnest Money Deposit		
Each page, as a confirmation of acceptance of Terms & Conditions and which is complete in all respects. Envelope -B 05 TECHNICAL PROPOSAL SUBMISSION LETTER on original letter head of firm (ANNEXURE -01) 06 PROFILE OF THE BIDDER(ANNEXURE -02) 07 Registration proof of the bidder firm 08 Authorization Certificate of OEM in the name of bidder(if Any) 09 Copy of PAN in the name of bidder 10 Copy of GSTIN in the name of bidder 11 ORIGINAL GENERAL POWER OF ATTORNEY as per ANNEXURE -03 12 ORIGINAL AFFIDAVIT ABOUT UNDERTAKING BY BIDDER as per ANNEXURE -04 13 ORIGINAL CERTIFICATE OF AVERAGE TURNOVER as per ANNEXURE -06 duly signed by Chartered Accountant 14 ORIGINAL EXPERIENCE CERTIFICATE as per ANNEXURE -07 duly signed by Chartered Accountant 14 Performance Certificates of equipments delivered at any Institutes of National Importance. Envelope -C 16 TECHNICAL BID as per ANNEXURE -08 17 Media Containing soft copy of ANNEXURE -08 18 The CD/DVD containing complete videos of performances and observations of required equipments 19 Complete brochure/booklet of the equipments delivered by the company which must include our listed items. Env	03	ANNEXURE -05		
05 TECHNICAL PROPOSAL SUBMISSION LETTER on original letter head of firm (ANNEXURE -01) 06 PROFILE OF THE BIDDER(ANNEXURE -02) 07 Registration proof of the bidder firm 08 Authorization Certificate of OEM in the name of bidder(if Any) 09 Copy of PAN in the name of bidder 10 Copy of GSTIN in the name of bidder 11 ORIGINAL GENERAL POWER OF ATTORNEY as per ANNEXURE -03 12 ORIGINAL AFFIDAVIT ABOUT UNDERTAKING BY BIDDER as per ANNEXURE -04 13 ORIGINAL CERTIFICATE OF AVERAGE TURNOVER as per ANNEXURE -06 duly signed by Chartered Accountant 14 ORIGINAL EXPERIENCE CERTIFICATE as per ANNEXURE -07 duly signed by Chartered Accountant 15 Performance Certificates of equipments delivered at any Institutes of National Importance. Envelope -C 16 TECHNICAL BID as per ANNEXURE -08 17 Media Containing soft copy of ANNEXURE -08 18 The CD/DVD containing complete videos of performances and observations of required equipments 19 Complete brochure/booklet of the equipments delivered by the company which must include our listed items. 20 FINANCIAL BID as per ANNEXURE -09	04	Each page, as a confirmation of acceptance of Terms &		
original letter head of firm (ANNEXURE -01) 06 PROFILE OF THE BIDDER(ANNEXURE -02) 07 Registration proof of the bidder firm 08 Authorization Certificate of OEM in the name of bidder(if Any) 09 Copy of PAN in the name of bidder 10 Copy of GSTIN in the name of bidder 11 ORIGINAL GENERAL POWER OF ATTORNEY as per ANNEXURE -03 12 ORIGINAL AFFIDAVIT ABOUT UNDERTAKING BY BIDDER as per ANNEXURE -04 13 ORIGINAL CERTIFICATE OF AVERAGE TURNOVER as per ANNEXURE -06 duly signed by Chartered Accountant 14 ORIGINAL EXPERIENCE CERTIFICATE as per ANNEXURE -07 duly signed by Chartered Accountant 15 Performance Certificates of equipments delivered at any Institutes of National Importance. Envelope -C 16 TECHNICAL BID as per ANNEXURE -08 17 Media Containing soft copy of ANNEXURE -08 18 The CD/DVD containing complete videos of performances and observations of required equipments 19 Complete brochure/booklet of the equipments delivered by the company which must include our listed items. 20 FINANCIAL BID as per ANNEXURE -09				
BIDDER(ANNEXURE -02) 07 Registration proof of the bidder firm 08 Authorization Certificate of OEM in the name of bidder(if Any) 09 Copy of PAN in the name of bidder 10 Copy of GSTIN in the name of bidder 11 ORIGINAL GENERAL POWER OF ATTORNEY as per ANNEXURE -03 12 ORIGINAL AFFIDAVIT ABOUT UNDERTAKING BY BIDDER as per ANNEXURE -04 13 ORIGINAL CERTIFICATE OF AVERAGE TURNOVER as per ANNEXURE -06 duly signed by Chartered Accountant 14 ORIGINAL EXPERIENCE CERTIFICATE as per ANNEXURE -07 duly signed by Chartered Accountant 15 Performance Certificates of equipments delivered at any Institutes of National Importance. Envelope -C 16 TECHNICAL BID as per ANNEXURE -08 17 Media Containing soft copy of ANNEXURE -08 18 The CD/DVD containing complete videos of performances and observations of requipments 19 Complete brochure/booklet of the equipments delivered by the company which must include our listed items. Envelope -D 20 FINANCIAL BID as per ANNEXURE -09		original letter head of firm (ANNEXURE -01)		
08 Authorization Certificate of OEM in the name of bidder(if Any) 09 Copy of PAN in the name of bidder 10 Copy of GSTIN in the name of bidder 11 ORIGINAL GENERAL POWER OF ATTORNEY as per ANNEXURE -03 12 ORIGINAL AFFIDAVIT ABOUT UNDERTAKING BY BIDDER as per ANNEXURE -04 13 ORIGINAL CERTIFICATE OF AVERAGE TURNOVER as per ANNEXURE -06 duly signed by Chartered Accountant 14 ORIGINAL EXPERIENCE CERTIFICATE as per ANNEXURE -07 duly signed by Chartered Accountant 15 Performance Certificates of equipments delivered at any Institutes of National Importance. Envelope -C 16 TECHNICAL BID as per ANNEXURE -08 17 Media Containing soft copy of ANNEXURE -08 18 The CD/DVD containing complete videos of performances and observations of required equipments 19 Complete brochure/booklet of the equipments delivered by the company which must include our listed items. Envelope -D 20 FINANCIAL BID as per ANNEXURE -09		BIDDER(ANNEXURE -02)		
09 Copy of PAN in the name of bidder 10 Copy of GSTIN in the name of bidder 11 ORIGINAL GENERAL POWER OF ATTORNEY as per ANNEXURE -03 12 ORIGINAL AFFIDAVIT ABOUT UNDERTAKING BY BIDDER as per ANNEXURE -04 13 ORIGINAL CERTIFICATE OF AVERAGE TURNOVER as per ANNEXURE -06 duly signed by Chartered Accountant 14 ORIGINAL EXPERIENCE CERTIFICATE as per ANNEXURE -07 duly signed by Chartered Accountant 15 Performance Certificates of equipments delivered at any Institutes of National Importance. Envelope -C 16 TECHNICAL BID as per ANNEXURE -08 17 Media Containing soft copy of ANNEXURE -08 18 The CD/DVD containing complete videos of performances and observations of required equipments 19 Complete brochure/booklet of the equipments delivered by the company which must include our listed items. Envelope -D 20 FINANCIAL BID as per ANNEXURE -09				
10 Copy of GSTIN in the name of bidder 11 ORIGINAL GENERAL POWER OF ATTORNEY as per ANNEXURE -03 12 ORIGINAL AFFIDAVIT ABOUT UNDERTAKING BY BIDDER as per ANNEXURE -04 13 ORIGINAL CERTIFICATE OF AVERAGE TURNOVER as per ANNEXURE -06 duly signed by Chartered Accountant 14 ORIGINAL EXPERIENCE CERTIFICATE as per ANNEXURE -07 duly signed by Chartered Accountant 15 Performance Certificates of equipments delivered at any Institutes of National Importance. Envelope -C 16 TECHNICAL BID as per ANNEXURE -08 17 Media Containing soft copy of ANNEXURE -08 18 The CD/DVD containing complete videos of performances and observations of required equipments 19 Complete brochure/booklet of the equipments delivered by the company which must include our listed items. Envelope -D 20 FINANCIAL BID as per ANNEXURE -09				
11 ORIGINAL GENERAL POWER OF ATTORNEY as per ANNEXURE -03 12 ORIGINAL AFFIDAVIT ABOUT UNDERTAKING BY BIDDER as per ANNEXURE -04 13 ORIGINAL CERTIFICATE OF AVERAGE TURNOVER as per ANNEXURE -06 duly signed by Chartered Accountant 14 ORIGINAL EXPERIENCE CERTIFICATE as per ANNEXURE -07 duly signed by Chartered Accountant 15 Performance Certificates of equipments delivered at any Institutes of National Importance. Envelope -C 16 TECHNICAL BID as per ANNEXURE -08 17 Media Containing soft copy of ANNEXURE -08 18 The CD/DVD containing complete videos of performances and observations of required equipments 19 Complete brochure/booklet of the equipments delivered by the company which must include our listed items. Envelope -D 20 FINANCIAL BID as per ANNEXURE -09				
ANNEXURE -03 12 ORIGINAL AFFIDAVIT ABOUT UNDERTAKING BY BIDDER as per ANNEXURE -04 13 ORIGINAL CERTIFICATE OF AVERAGE TURNOVER as per ANNEXURE -06 duly signed by Chartered Accountant 14 ORIGINAL EXPERIENCE CERTIFICATE as per ANNEXURE -07 duly signed by Chartered Accountant 15 Performance Certificates of equipments delivered at any Institutes of National Importance. Envelope -C 16 TECHNICAL BID as per ANNEXURE -08 17 Media Containing soft copy of ANNEXURE -08 18 The CD/DVD containing complete videos of performances and observations of required equipments 19 Complete brochure/booklet of the equipments delivered by the company which must include our listed items. Envelope -D 20 FINANCIAL BID as per ANNEXURE -09				
BIDDER as per ANNEXURE -04 13 ORIGINAL CERTIFICATE OF AVERAGE TURNOVER as per ANNEXURE -06 duly signed by Chartered Accountant 14 ORIGINAL EXPERIENCE CERTIFICATE as per ANNEXURE -07 duly signed by Chartered Accountant 15 Performance Certificates of equipments delivered at any Institutes of National Importance. Envelope -C 16 TECHNICAL BID as per ANNEXURE -08 17 Media Containing soft copy of ANNEXURE -08 18 The CD/DVD containing complete videos of performances and observations of required equipments 19 Complete brochure/booklet of the equipments delivered by the company which must include our listed items. Envelope -D 20 FINANCIAL BID as per ANNEXURE -09		ANNEXURE -03		
per ANNEXURE -06 duly signed by Chartered Accountant 14 ORIGINAL EXPERIENCE CERTIFICATE as per ANNEXURE -07 duly signed by Chartered Accountant 15 Performance Certificates of equipments delivered at any Institutes of National Importance. Envelope -C 16 TECHNICAL BID as per ANNEXURE -08 17 Media Containing soft copy of ANNEXURE -08 18 The CD/DVD containing complete videos of performances and observations of required equipments 19 Complete brochure/booklet of the equipments delivered by the company which must include our listed items. Envelope -D 20 FINANCIAL BID as per ANNEXURE -09	1			
14 ORIGINAL EXPERIENCE CERTIFICATE as per ANNEXURE -07 duly signed by Chartered Accountant 15 Performance Certificates of equipments delivered at any Institutes of National Importance. Envelope -C 16 TECHNICAL BID as per ANNEXURE -08 17 Media Containing soft copy of ANNEXURE -08 18 The CD/DVD containing complete videos of performances and observations of required equipments 19 Complete brochure/booklet of the equipments delivered by the company which must include our listed items. Envelope -D 20 FINANCIAL BID as per ANNEXURE -09	1			
15 Performance Certificates of equipments delivered at any Institutes of National Importance. Envelope -C 16 TECHNICAL BID as per ANNEXURE -08 17 Media Containing soft copy of ANNEXURE -08 18 The CD/DVD containing complete videos of performances and observations of required equipments 19 Complete brochure/booklet of the equipments delivered by the company which must include our listed items. Envelope -D 20 FINANCIAL BID as per ANNEXURE -09	14	ORIGINAL EXPERIENCE CERTIFICATE as per		
Envelope -C 16 TECHNICAL BID as per ANNEXURE -08 17 Media Containing soft copy of ANNEXURE -08 18 The CD/DVD containing complete videos of performances and observations of required equipments 19 Complete brochure/booklet of the equipments delivered by the company which must include our listed items. Envelope -D 20 FINANCIAL BID as per ANNEXURE -09	15	Performance Certificates of equipments delivered at any		
16 TECHNICAL BID as per ANNEXURE -08 17 Media Containing soft copy of ANNEXURE -08 18 The CD/DVD containing complete videos of performances and observations of required equipments 19 Complete brochure/booklet of the equipments delivered by the company which must include our listed items. Envelope -D 20 FINANCIAL BID as per ANNEXURE -09		*		
18 The CD/DVD containing complete videos of performances and observations of required equipments 19 Complete brochure/booklet of the equipments delivered by the company which must include our listed items. Envelope -D 20 FINANCIAL BID as per ANNEXURE -09				
observations of required equipments 19 Complete brochure/booklet of the equipments delivered by the company which must include our listed items. Envelope -D 20 FINANCIAL BID as per ANNEXURE -09				
company which must include our listed items. Envelope -D 20 FINANCIAL BID as per ANNEXURE -09		observations of required equipments		
20 FINANCIAL BID as per ANNEXURE -09				
as per ANNEXURE -09		Envelope -D		
		MAIN Envelope		
21 It shall contain labeled and sealed A, B, C, & D envelopes	21			
Any Other Supporting Documents				
22 (Please Specify) 23 (Please Specify)				
23 (Please Specify) 24 (Please Specify)				

ABBREVIATIONS

In this document, unless the context specifies otherwise, following abbreviations shall mean:-

SI. No.	Abbreviation	Full Form / Meaning	
01	GoI	Government of India	
02	GoCG	State Government of Chhattisgarh	
03	OSG	Other State Governments/ UT administrations	
	000	in India	
04	CG	Chhattisgarh	
05	BIS	Bureau of Indian Standards	
06	ISO	International Organization for Standardization	
07	ISI	(Indian Standards Institution) Mark	
		of BIS for Industrial Products Tax	
08	TDS	Deduction at Source Permanent	
09	PAN	Account Number Goods & Services	
10	GST	Tax	
11	GSTIN	Goods & Services Tax Identification Number	
12	FY	Financial Year	
13	UDIN	DIN Unique Document Identification Number	
14	OEM	Original Equipment Manufacturer with	
		manufacturing facility in India	
15	GPS	Government Polytechnic, Sukma	
16	DTC	Departmental Technical Committee	
17	TDF	Tender Document Fee	
18	EMD	Earnest Money Deposit	
19	LoI	Letter of Intent	
20	LoA	Letter of Acceptance	
21	PAC	Probable Amount of Contract in INR	
22	B_1, B_2, \dots, B_N	Best Suitable -01N	
23	$L_1, L_2 \dots L_N$	Lowest -01N	

DEFINITIONS

In writing Terms & Conditions of Contract, Specifications and bill of quantity, the following words/phrases shall have the meanings hereby indicated, unless there is something in the subject matter or content inconsistent with the subject.

S. no.	Word/ Phrase	Meaning
01	AUTHORITY	Principal, Government Polytechnic, Sukma
02	CONTRACT	The legal document signed by the Principal, Govt. Polytechnic, Sukma and successful bidder which are binding both the parties to all terms and conditions, any special conditions of the tender document including any final corrections or modification to the Tender, if any. Terms and conditions not herein defined shall have the same meaning as are assigned to them in the Indian Contract Act or any other Act in vague or by any person of common knowledge and prudence.
03	BID / TENDER PROPOSAL	The complete proposal including all documents, information, corrections, addendum and modifications made therein submitted by the bidder supporting his bid to provide the goods and services to Principal, Govt. Polytechnic, Sukma, as Required under the tender document.
04	BIDDER	A Business entity as per section 1.3, chapter 01 of tender document who is either OEM with manufacturing facility in India or a authorized Supplier/ Distributor/ Dealer/ Agency /Stockiest of OEM, eligible to participate in the Tender/bidding process.
05	PRE-QUALIFIED BIDDER	A bidder who is found eligible as per stage-01 evaluation.
06	ASSIGNMENT	The supply, installation, commissioning of the Laboratory Equipment /machinery as per the needs and requirements of the GPS according to the standards and technical specifications and other conditions as detailed in ANNEXURE -08 .
07	CONTRACT PERIOD	Entire contract period from date of LoI till the end of warranty period.
08	CORRUPT PRACTICE/S	Direct or indirect offering/ giving/ receiving/ soliciting of anything of value, Pressurizing to influence the action of a public official in the process of Bidder Selection and Contract execution.
09	DELIVERY LOCATION	The place where the goods to be supplied i.e. specific department or laboratory of Government Polytechnic, Sukma, At Kumharras, Sukma, Malkangiri Road, Tah – Sukma, Dist – Sukma - 494111, Chhattisgarh
10	DELIVERY CUM INSTALLATION REPORT	The delivery report prepared by DTC after final delivery of all Laboratory Equipment/Machinery etc. as per Tender /supply order along with Operating /Instructions Manuals /Technical Literature /Leaflets /Brochures/ software/hardware etc.
11	GOVERNMENT AUTHORITY	Any Indian entity, authority or body exercising executive, legislative, judicial, regulatory or administrative functions, including, without limitation, any government authority, agency, department, board, commission or instrumentality of Indian or any political subdivision thereof, court, tribunal, arbitrator or self- regulatory organization.
12	LAW	Includes all the provisions of all Indian statutes, regulations, ordinances, codes, official or other standards, administrative or other rules, zoning and other plans and restrictions, building and other permits, judgments awards and decrees of, or agreements with any Governmental, semi-Governmental or quasi-Governmental Authority as currently in effect or as may be in effect from time to time and /or as may be amended or supplemented from time to time.
13	AUTHORIZED DEALER /SUPPLIER/ AGENCY DISTRIBUTOR/ STOCKIST	Person/Firm who is authorized by OEM for supply of Equipment/Machinery
14	AUTHORIZED SIGNATORY	Person who is authorized to sign and execute all the documents / Agreements /Contracts related to Tender on behalf of the bidder.
15	SELECTION PROCEDURE	The entire procedure conducted by GPS to select and appoint the successful bidder For the provision of the services pursuant to the Tender Process and the subsequent negotiation, finalization and execution of the Agreement.
16	TOTAL ACCEPTED TENDER VALUE	The total value of goods and services as covered under this Tender and agreed Upon by the successful Bidder.
17	WARRANTY PERIOD	The period of minimum 02 calendar year from the successful Installation/commissioning of the equipment/machinery at the institute during which all Electrical /Electronic and Mechanical spare/parts/accessories of Equipment/machinery or its Auxiliary Unit to be replaced without any cost/charge by the successful bidder.

CHAPTER -01

TERMS & CONDITIONS

GENERAL

- **A.** The Bidder is expected to **examine contents of tender document carefully** and annexure provided therein for the sake of better understanding and clarity regarding the quality and standards of the goods required by GPS.
- B. It shall be deemed that prior to the submission of the bid proposal, the bidders have: -
 - Made a complete and careful examination of terms and conditions /requirements, tender document along with all annexure, specifications, contract document and all other information as set forth in this tender document to their entire satisfaction;
 - Received all such relevant information/certificates which has been requested by GPS;
 - > Made a complete and careful examination of the various aspects of the whole assignment.
- **C.** Failure to furnish all required information and/or lack of information shall not in any way relieve the bidder of his responsibility to fulfill his obligations under this tender document.
- D. GPS shall not be liable for any mistakes or errors or neglect by the bidder in respect to tender document. Failure to comply with the requirements of tender document shall be at bidder's own risk.
- **E.** The submission of the bid proposal will be **deemed as unconditional acceptance of all the terms and conditions** of the tender document.
- **F.** The bidder shall **bear all the costs associated with the preparation and submission of bid proposal** and its participation in the bidding process. In no case, GPS will be responsible for those costs, regardless of the conduct or outcome of the bidding process.
- **G.** The terms, conditions and specifications mentioned in **tender document shall be binding on the bidders** and no condition or stipulation contrary to the terms and conditions shall be acceptable. Printed condition/s on the back side of the tender proposal will not be binding on the Authority. It may please be noted that the bidders who do not accept terms and conditions stipulated in this tender document, their offers shall be liable to be rejected out-rightly without assigning any reason whatsoever.
- **H.** The bidder must **furnish complete and detailed technical specifications supported by printed original literature** for all offered equipment /machinery. Print out of the web pages /photocopy of literature (color or black & white) /Duplicate / Incomplete literature / Literature without seal affixed and/or which is not signed will not be considered.
- I. Each page of tender document & enclosures/annexure (Including Printed Technical Literature and/or any supporting documents) shall be signed by the authorized signatory of bidder and seal affixed. All the pages of the downloaded tender document must be submitted along with the bid proposal.
- J. Bidders shall submit their bid proposal in properly arranged manner (with index, proper paging and with flags on important documents). Item No. and page no. of the tender document/annexure should be strictly in chronological order only. Incomplete, loose, or improperly arranged bid proposals may be rejected without assigning any reason whatsoever.
- K. Authority will not arrange for import license and/or custom duties or any other required certifications for imported items /equipment /machinery. The entire imported item will have to be delivered on door delivery basis inclusive of all applicable taxes/duties/levies etc and payment will be made in Indian Rupees only.
- L. The CD/DVD containing complete videos of performances and observations of equipments M19, M21, M23, M47, M56, M57, M58, M59, M61, M77, M78, M79, M80, M81, M82, M83, M84, M85, M86, M87, M88, M113, M114, M115, M117, M118, M122, M124, M125, M126, M127 must be provided in Envelope C.

M. Original complete brochure/booklet of equipments delivered/manufactured by the firm including Tender Document for **Mechanical Engineering Department - 2021** our listed items should be provided in envelope C. The photographs of the equipments in the brochure must of original equipments.

- N. A soft copy of ANNEXURE 08 prepared in Microsoft Excel -2010 shall be submitted in the form of CD/DVD with bid proposal. Absence of media containing soft copy of said annexure may result in rejection of bid proposal.
- **0.** Preferably quoted items /equipment/ machinery shall **conform to the BIS/ISO/ISI** or other certifications as far as possible related to the item categories and shall be **made in India**.
- **P.** The equipment/ machinery **calibrated in metric system and with minimum warrantee period of not less than 02 (Two) calendar years** from the date of installation need only be quoted.
- **Q.** The bid proposal should clearly indicate whether offered equipment /machinery are complete in itself. If in the opinion of the bidder, for the satisfactory performance of offered equipment /machinery certain accessories /spares /parts /set-ups /auxiliary unit /hardware /software

/power supply /cables etc are necessary then bidder must quote the rate inclusive of aforesaid accessories /auxiliary unit /set-up and mention it under the heading **Extra but Essential in Technical Bid**.

- **R.** The Successful Bidder is required to enter into a contract with Authority for the assignment within stipulated time period.
- **S. Procurement** (Supply, Installation and Commissioning of various Equipment /Machinery) **under this tender may be procured phase wise** as per requirement of GPS. Separate supply orders may be issued time to time for the procurement of required goods.
- **T.** Quantities shown in the tender (if any) are tentative and can vary to any extent. No claim shall be entertained for deviation in quantities required to complete the assignment.
- U. Authority reserves the right: -
- To reject (either fully or partly) any or all bids and/or to annul the bidding process, at any time prior to award of contract, without thereby incurring any liability to the affected bidder(s) or any obligations to inform the affected bidder(s) of the grounds for such decision.
- > To permit any bidder to resubmit his bid proposal.
- To pursue negotiations with any number of bidders and to withdraw from negotiations with any bidder at any time.
- > To suspend, discontinue, modify and/or terminate the tender process at any time without assigning any reason on the grounds considered advantageous to GPS.
- > To split the quantities against the tender further for the same equipment/machinery. No reason will be assigned by GPS for this purpose and it will be binding on the all the bidders.
- To verify the claims made by the bidders and/or to carry out the assessment regarding Pre-Qualification conditions of the bidders. Decision of authority in this regard shall be final and binding on all the bidders.
- To increase or decrease the scope of work under the assignment and/or to appoint other agencies for providing services which is not in the scope of this tender.
- To waive off any of the conditions and /or requirements in the tender in respect of any or allof the bidders.
- To seek clarification/justification from the bidder about quoted rate(s) in case GPS deems it necessary. Based on the clarification /justification provided by the bidder, if GPS feels that the rate(s) is/are unrealistic /infeasible in order to execute assignment of this nature, GPS may reject the bid proposal out rightly.
- To appoint the successful bidder subject to such further terms & conditions as it considers appropriate in relation to the tender process and/or the provision of the services. GPS shall not be obliged to give any reason(s) for the selection and/or rejection of any bid proposal or any part thereof.
- Not to be bound in any manner to select any of the bidders submitting proposals or to select the bidder who quoted lowest rate(s).

TENDER PROPOSAL

- **A.** The **bid proposal** prepared by the bidder, as well as all correspondence and documents relating to the bid shall be **in English language only**. Supporting documents and printed original literature furnished by the bidder may be in another language provided they are accompanied by an accurate translation of the relevant pages in English. For purposes of interpretation of the bid, the translation shall govern.
- **B.** Bid proposal (Pre-Qualification submissions, Technical and Financial Bid) shall **not contain any interlineations /alterations /erasures /overwriting**, except as necessary to correct bona fide errors made by bidders themselves. Any such corrections /interlineations /alterations /erasures /overwriting shall be signed across by authorized signatory; otherwise bid proposal may be rejected.
- **C.** All pages of bid proposal, enclosures/annexure, any certificates, printed original literature and/or supporting documents or copies of it shall be **seal affixed and signed by authorized signatory of the bidder**. Absence of sign and/or seal at any of the appropriate places/pages in bid proposal may result into rejection of the bid proposal out rightly.
- **D.** Bidder's proposal should be submitted in following manner in **separate appropriately super scribed envelopes which are sealed & signed on all joints** :-

MAIN Envelope	Main Envelope must contain sealed A, B, C & D envelopes. Bidder's Name, Address and type of firm (OEM / Authorizes Supplier/Distributor/Agency/Stockiest) should be clearly written on main envelope in BOLD letters only .	It shall contain labeled and sealed A, B, C, & D envelopes
Envelope -A	It shall contain separate Demand Drafts for TDF and EMD and duly seal affixed & signed (by authorized signatory on each & every page) hard copy of tender document which is complete in all respects.	ANNEXURE -05
Envelope -B	It shall contain Pre-Qualification documents in the prescribed Formats and any other documentary evidences in support of Pre-Qualification conditions.	ANNEXURE -01, 02, 03, 04, 06, 07
Envelope -C It shall contain complete and detailed Technical specifications for offered equipments/machinery in prescribed format and supporting printed original literature/ Brochures/ Catalogue/Leaflets/ Instruction Manual/ Handouts.		ANNEXURE -08 & media containingsoft copy of same
Envelope -D	shall contain financial bid in prescribed format	ANNEXURE -09

BID PROPOSAL WHICH DOESN'T FOLLOW THE ABOVE FORMAT SHALL BE REJECTED OUT RIGHTLY.

ELIGIBILITY CRITERIA

- **A.** For the purpose of bid proposal submission, a **business entity** shall mean a **Sole Proprietorship Firm / Registered Partnership Firm/ a Company** registered in India under the Companies Act 1956 / **Registered Society / Registered NGO**
 - A Sole Proprietorship Firm should furnish either the Sales/GST/service tax or IT returns for FY 2018-19, 2019-20 and 2020-21 as proof of identity.
 - A Registered Partnership Firm should furnish registration certificate under the registrar of firms and the partnership deed executed between the partners as proof of identity.
 - A Company should furnish certificate of incorporation and memorandum of association as proof of identity.
 - Registered Society/ Registered NGO should furnish incorporation/registration certificate issued by appropriate authorities.
- **B.** The bidder shall be **registered OEM** with manufacturing facility in India **or Authorized Dealer /Supplier /Agency /Distributor /Stockiest of OEM** engaged in respective area of works.
- C. The bidder should have sufficient Infrastructure, Technical Expertise and Financial Capability to undertake the assignment.
- **D.** Authority **intends to appoint a single entity for this assignment**; hence the bidders participating in this tender process shall be a single business entity only. Submission of Proposal by consortia shall not be eligible.
- E. Experience of a bidder as a member of consortia, for any project/work shall not be considered.
- **F.** Each bidder shall submit a **maximum one (1) bid proposal** only. Any Bidders who submits more than one bid proposals shall be disqualified and all proposals shall be rejected out rightly.
- **G.** Any entity, which has earlier been barred by the any Client in India, Government of Chhattisgarh (GoCG), or any other state governments/UT administrations in India (OSG) or Government of India (GoI), Any institute of national importance, Central/State University or any of the agencies of GoCG/OSG/GoI or any Government Authority from participating in its projects and the bar subsists as on the proposal due date, shall not be eligible to submit a Proposal.
- **H.** The bidder must have **registered PAN & GSTIN for the firm** and copies of the same shall be submitted in bid proposal.
- I. The bidder shall have copies of GST (GSTR 09) & IT returns for FY 2018-19, 2019-20 and 2020-21 and copies of the same shall be submitted in bid proposal.
- J. Bid Proposal shall necessarily be accompanied by valid and separate Demand Drafts for Tender Document Fee (TDF), Earnest Money Deposit (EMD) and seal affixed & signed certificate regarding same as per the ANNEXURE -05.
- K. The Bidder shall have achieved a Minimum Average Annual Turnover from manufacturing/ supplying of laboratory equipments /machinery, installation, commissioning and testing thereof, of ₹ 50.00 Lakhs in last 03 years (i.e. FY 2018-19, 2019-20 & 2020-21). Certificate from CA as per ANNEXURE -06 must be submitted in the bid proposal.
- **L.** The bidder shall have a **minimum 03 (Three) years of experience** in the capacity of OEM/ Authorized Dealer /Supplier /Agency /Distributor /Stockiest of OEM for supplying laboratory equipments /machinery, along with installation, commissioning and testing thereof.
- M. Preference will be given to bidders who have experience for supply, installation, commissioning and testing of similar items i.e. laboratory equipments /machinery in Institutions of National Importance or Universities during last 03 (Three) years i.e. after 01/04/2018. Performance certificate should be submitted of delivered equipments from the authority of that Institutions of National Importance in envelope B.

- N. The bidder shall have executed minimum one single contract costing not less than ₹ 10.00 Lakhs OR two contract costing not less than ₹ 06.00 Lakhs each for supply, installation, commissioning and testing of similar items i.e. laboratory equipments /machinery in Government/Semi-Government Departments or Institutions of NationalImportance or corporations during last 03 (Three) years i.e. after 01/04/2018.
- **O. Experience Certificate from CA shall** be submitted as per ANNEXURE **-07 only**. Work/Supply order, LoI /LoA etc., will not be acceptable under any conditions unless and until supported by completion certificate from the same buyer.

BIDDING PROCESS

- A. No tender document shall be sold by GPS. Prospective bidder can download the tender document from the official website of GPS <u>http://www.gpolysukma.in</u> & <u>https://cgdteraipur.cgstate.gov.in</u> only.
- **B.** Completely filled, seal affixed and signed bid proposal (strictly as per prescribed format only) including Technical and Financial Bid must reach **ONLY BY SPEED POST** to Principal, Govt. Polytechnic, Sukma, At Kumharras, Sukma, Malkangiri Road, Tah- Sukma, Dist- Sukma 494111 (CG) **latest by 03.00 PM on 02.12.2021**.
- C. Nobody from GPS is authorized to receive or grant receipt for bid proposal delivered on behalf of GPS.
- D. Bid Proposal shall be rejected summarily for any of following :-
 - If received after due date and /or time;
 - If received through any other means except speed post;
 - If not supported by valid documentary evidences.
- E. The bidder's proposal shall be evaluated in 03 (Three) stages as follows:-I. Stage -01 Evaluation (Pre-Qualification)
 - A Pre-Qualification meeting shall be organized on 02/12/2021 at 04:00 PM at Govt. Polytechnic, Sukma, At Kumharras, Sukma, Malkangiri Road, Tah- Sukma, Dist- Sukma -494111 (CG) and Only Envelope A & B of each bidder will be opened in presence of authorized representatives and purchase committee of GPS. All bidders shall be evaluated for Pre-Qualification conditions in this meeting.
 - Only one authorized representative of each bidder shall be allowed to participate in the above said meeting. It is advisable for all Bidders to attend Pre-Qualification Meeting.
 - In case, no authorized representative of bidders remain present for meeting then after 01 hour of waiting for them, meeting will be continued with all members of purchase committee of GPS.
 - Under any circumstances whatsoever may be, no extra time for submission of any of supporting documentary evidence or material will be granted by GPS or no material can be appended/added to the already submitted tender document during this meeting. Decision of purchase committee in this regard will be final and binding on all bidders.
 - All bidders shall be evaluated for Pre-Qualification conditions on the basis of the supporting documentary evidences submitted in their bid proposal.
 - Those bidders who fulfill the Pre-Qualification conditions shall only be considered for Stage-02 level of evaluation and **Envelope – C** of eligible bidders will be made available to DTC for technical evaluation.
 - Those bidders who fail to fulfill Pre-Qualification conditions shall be declared as non-responsive by GPS and shall not be considered to proceed further in the tender process.
 - The date and time of meeting for opening financial bid will be declared by authority in Pre-Qualification meeting and Envelope – D of eligible bidders will be sealed and kept in safe

Custody of authority till next meeting. No separate communication by any means will be sent to any bidder regarding date and time of the financial bid meeting.

- Regarding Pre-Qualification, decision of the authority will be final and binding on all the bidders.
- Due to COVID-19 pandemic, date of Pre-Qualification meeting may change subject to guidelines issued by Government Authorities. Notice regarding change of Date will be displayed on website <u>www.gpolysukma.in</u> only. No separate communication will be done by GPS in this regard. Bidders are advised to visit website of GPS regularly.

II. Stage-02 Evaluation (Technical Evaluation)

- The Technical Bid **(Envelope -C)** of Pre-Qualified bidders will be forwarded to Departmental Technical Committee (DTC) of GPS for technical evaluation.
- DTC will evaluate Technical bids (offered specifications) as per different criteria which may include: -
 - ✓ Suitability of the equipment as per the curriculum of CSVTU, Bhilai
 - ✓ Efficiency
 - ✓ Operating cost
 - ✓ Usability
 - ✓ Ease and cost of maintenance
 - ✓ Availability of technical staff in institute
 - ✓ Training of the faculty/laboratory staff for operations and maintenance
 - ✓ Warranty period and warranty conditions
 - ✓ Items/spares/parts covered under warranty
 - ✓ Extra but essential and/or extra but not essential parts/accessories/set-up supplied with equipment without any additional cost
- DTC will submit list of technically eligible bidders. Only those bidders who are found technically eligible shall be considered for stage -03 level of evaluation.
- As a result of technical evaluation, DTC will submit the equipment wise detailed report by marking all technically eligible bidders as B_1 (Best -01), B_2 etc. to the authority within specified time limit. Decision of DTC in this regard will be final and binding on all bidders.

III. Stage -03 Evaluation (Financial Bid)

- Bidders found eligible in both Stage -01 & 02 evaluations only shall be shortlisted for financial bid opening.
- Financial bid **(Envelope -D)** will be opened on scheduled date and time (declared in Pre-Qualification meeting by Authority) in presence of authorized representatives of bidders and purchase committee of GPS.
- In case, no authorized representative of bidders remains present for meeting then after 01 hour of waiting for them, financial bid will be opened in presence of all members of purchase committee of GPS.
- The technically eligible bidders will be shortlisted equipment wise as L_1 , L_2 etc. Purchase committee in consultation with DTC, will figure out equipment wise best possible combination of Technical specifications i.e. B_1 , B_2 etc with least cost i.e. L_1 , L_2 etc.
- Bidder with best possible combination for particular equipment(s) may be invited for negotiation and LoI for particular equipment(s) may be awarded to the successful bidder after clarifying any outstanding points.
- Bidders submitting the bid proposals should clearly understand that any or all parts of their bid proposals are liable to be part of the negotiation procedure.
- Purchase committee shall determine the approach and methodologies for any issues; which may arise during the negotiation process, prescribed evaluation process in this

Tender document and have not been addressed in this tender document. Decision ofpurchase committee in this regard will be final and binding on all bidders.

- Successful bidder will submit LoA along with performance security within 10 working daysto GPS, failing to which next bidder may be issued LoI.
- Successful bidder has to sign the contract and complete all legal and/or required formalities within 10 working days from receipt of the LoA at GPS.

CLARIFICATIONS AND AMENDMENTS TO TENDER DOCUMENT

- **A. Any extension of due date** for submission of bid proposal if any, **will only be uploaded on** Official website of GPS (**www.gpolysukma.in**) and shall not be published in any print media.
- **B. Bidders may request a clarification** of any of the issues related to the tender document up to the date indicated in the Data Sheet. All suggestions, doubts, confusions, requests for clarification, queries etc., shall be presented to GPS in writing /through emails from authentic email id to the address or Email Id indicated in the Data Sheet **latest by 05:00 PM on 27/11/2021**. After prescribed date and time, any representation in this regard shall not be considered under any condition.
- **C.** The **responses of GPS will only be uploaded on official** website of GPS (**www.gpolysukma.in**) without identifying the source of inquiry **latest by 03:00 PM on 30/11/2021**.
- **D.** At any time prior to the due date for submission of bid proposal, GPS for any reason, whether at its own initiative, or in response to a clarification requested by prospective bidders, may modify the tender document by issuing an amendment notice on official website of GPS only.
- **E.** All prospective bidders will be notified about the amendment through official website of GPS (**www.gpolysukma.in**) **only** and such modification(s) and/or Amendment(s) will be binding on all bidders. The amendments shall not be published in any print media.
- F. In case of substantial change in tender document, GPS will publish revised tender document on official website of GPS (www.gpolysukma.in) only and the same shall be submitted by bidders.
- **G.** To give bidders reasonable time to take substantial amendment into account in their bid proposals, **GPS may at its discretion, extend the due date for the tender submission by uploading a notice on official website of GPS (www.gpolysukma.in) only**.

VALIDITY

- A. Bid proposal (Full descriptive particulars along with annexure and complete specifications) shall be valid for not less than 01 (One) Calendar year from the due date for submission ofbid proposal i.e. up to 02/12/2022.
- **B.** The proposal validity period may further be extended on mutual consent.
- **C.** After finalization of this tender, **approved rates shall be valid for 01 (One) Calendar year** from the date of issue of supply order; however GPS shall have liberty to increase or decrease this validity period if needed.

FINANCIAL BID

A. Bidder shall examine the various provisions of the Central Goods and Services Tax Act, 2017(CGST) /Integrated Goods and Services Tax Act, 2017(IGST) /Union Territory Goods and Services Tax Act, 2017(UTGST)/ respective state's State Goods and Services Tax Act (SGST) also, as notified by GoI /GoCG /OSG & as amended from time to time and applicable taxes before quoting rate(s) in financial bid.

- **B.** The bidder shall note that **tender is strictly on item rate basis** and shall make sure that the rates are quoted for each equipment /machinery. It is clarified that the items/quantity of items listed may vary at any time before and/or issuing supply order.
- **C. Rate(s) quoted shall be valid for not less than 01 (One) calendar year** from the due date for submission of bid proposal and can be extended for next one year by mutual agreement of GPS and bidder.

D. For Financial bid bidder shall quote:-

- Separate rate for each individual equipment/machinery. Lump-sum rate quoted for all the equipments/machinery items (taken together) of the tender will not be accepted.
- A single consolidated rate for complete contract period based on the payment terms specified in the tender document.
- Rate(s) which is/are legible and free from any type of errors or ambiguity.
- hand written using indelible ink only in ANNEXURE -09
- Rate(s) which is/are in valid Indian currency only.
- Rate(s) for one complete unit (including all extra but essential accessories /spares /parts /set-ups /auxiliary unit /hardware /software /power supply /cables etc which are required for successful functioning and best performance) of the equipment/machinery.
- Rate(s) which are rounded up to next rupee value i.e. Rate should be in whole numbers only and no fractional part should be there after decimal point.
- Rate(s) which is consolidated per unit for delivery location on door delivery basis inclusive of GST and all other applicable taxes and duties, roadworthy packing, forwarding, freight, insurance, loading/unloading, installation/commissioning, demonstration, training, training material, hardware, software or training media, all types of incidental charges and with minimum warranty of not less than 02 (Two) calendar years from the date of installation for free of cost/charge, onsite, unconditional post installation services as mentioned in tender document.
- E. During financial bid evaluation, the authority will correct arithmetical errors (if any) in quoted rate(s) on following basis :-
 - 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 there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected.
 - The unit wise rate(s) will be rounded up to the next rupee value if it is has some fractional part.
 - Items against which no rate(s) is quoted /kept blank by the bidder will be considered as zero and will be treated as non responsive for that particular item/equipment.

CHAPTER -02 SPECIAL TERMS & CONDITIONS

BIDDER's OBLIGATIONS

A. Bidder shall **thoroughly know and understand GPS's requirements** of relevant equipments /machinery in terms of its available existing stock, ability to provide post installation service during complete warranty period at the doorstep of GPS, human resources, financial capability etc. GPS may require future supplies in a matching design and/or specifications.

B. The bidder shall be deemed to -

- Have satisfied himself as to the correctness and sufficiency of the accepted financial bid amount; and
- Have quoted total accepted financial bid amount based on the data, interpretations, necessary information, inspections, examinations and satisfaction as to all relevant matters.
- **C.** Bidder shall be **responsible for the adequacy, stability and safety of all supplies and services** being provided at the door step of GPS during complete contract period.
- **D.** Bidder is **bound to supply goods without any variations /compromise /condition** in specifications /make /model /brand /quality /required features /quantity or quality to GPS.
- **E.** Unless otherwise explicitly stated, the **accepted financial bid amount covers all the bidder's obligations** under this tender document and all things necessary for the supply and services during complete contract period.
- **F.** The bidder shall **assume liability and shall indemnify the authority from every expense, liability or payment** by reason of the application of any labor law, act, rules or regulations existing or to be introduced at a future date during the term of the contract.

GPS's OBLIGATION

- A. GPS shall strive hard for timely release of supplier's payment as per the payment terms.
- **B.** Officer Incharge Stores is authorized by GPS to coordinate with the successful bidder /firm in all matters related to supply and services for the successful execution of the assignment and to be responsible for all necessary exchange of information required.

EARNEST MONEY DEPOSIT (EMD)

- A. Any bid proposal without EMD will be summarily rejected.
- **B.** EMD shall be submitted **only in the form of Demand Draft of Nationalized Bank** in the favor of Principal, Government Polytechnic Sukma payable at Sukma, Chhattisgarh. EMD submitted in any other forms shall not be accepted.
- **C.** In accordance with the provision of the Chhattisgarh Store Purchase Rules- 2002, **registered MSME units having competency certificate from Department of Industry, Government of Chhattisgarh, will be exempted from EMD deposit** (Competency Certificate to be submitted with the bid proposal, in absence of competency certificate exemption will not be applicable).
- **D. EMD of bidders**, who are not short-listed for Stage-03 evaluation, **will be returned back to them only by speed post** within a period of 20 working days from the date of issue of Letterof Intent (LoI) to the Successful Bidder.

NOTIFICATION OF AWARD & SIGNING OF CONTRACT

A. Prior to expiry of the period of bid validity, **GPS shall notify the successful/selected bidder in writing** that his bid has been accepted and send **Letter of Intent (LoI)** for acceptance to him.

- **B.** Within Ten (10) days of receipt of the LoI, the successful bidder shall submit Letter of Acceptance (LoA) seal affixed and signed by authorized signatory to the GPS and remit the performance security in the form of Demand Draft of nationalized bank only.
- C. Extension of the time contained in this clause shall be at the sole discretion of the authority.
- **D.** Failure on the part of bidder to send LoA within the prescribed time shall empower the authority to cancel the LoI and take appropriate action against the said bidder including forfeiture of the EMD and black listing of the bidder.
- **E.** It shall be **incumbent upon the successful bidder to pay stamp duty on the Contract and all other legal charges** for preparation of the Contract, as on the date of execution of the Contract.

VARIATIONS, ADDITIONS & OMMISSIONS

- A. Authority have right to alter, amend, omit, split or otherwise vary the quantum of assignment, by notice in writing to the successful bidder.
- **B.** Authority at any time order the successful bidder through written notice or email to make changes within the general scope of the contract in any one or more of the following :-
 - Designs, standards or specifications of laboratory equipments /machinery;
 - Method of shipment or packing;
 - Related services to be provided by the supplier.
- **C.** The successful bidder shall carry out such variation/changes in accordance with the approved rate(s) specified in the contract. If any such change causes an increase or decrease in the rate of equipment /machinery, or the time required for supply /service or bidder's performance of any provisions under the contract, an equitable adjustment shall be made in the approved rate(s) or in the delivery /completion schedule, or both, and the contract shall accordingly be amended by mutual agreement of GPS and successful bidder. Bidder will bear all the costs/charges for amendment of contract, if any.

INSPECTION

- A. Authority or his authorized representative(s) shall be entitled at all reasonable times to inspect supervise and test equipment /machinery before and /or during installation and commissioning at delivery location. Such inspection will not relieve the supplier(s) from their obligations under this contract.
- **B.** Equipments /Machinery **may be inspected before dispatch or in transit by the authorized representatives of GPS** at the factory /warehouse /workshop **at the cost of supplier**, if desired by authority.
- **C. Inspection** of the laboratory equipments/machinery shall be carried out **by DTC to check** whether the supplied goods are in conformity **with the technical specifications mentioned** in tender document for quality, specifications, performance, accuracy and standards etc.
- **D.** Authority's rights to inspect, supervise, test and, where ever necessary reject laboratory equipments /machinery after the arrival at delivery location shall in no way be limited or waived by reason of the equipments having previously been inspected, tested and passed / accepted by the Authority or its authorized representative(s).

SUCCESSFUL BIDDER'S DEFAULT LIABILITY

- **A.** Successful bidder **shall supply** (at the door step of GPS) **ordered goods and related services** included in the scope of supply in accordance with all (general and special) terms & conditions of this tender document.
- B. If, at any time, during performance of the contract /supply and services, bidder encounters

Conditions causing delay in delivery of the laboratory equipments /machinery and/or performance of services, the **bidder shall promptly notify the authority in writing about fact(s) of delay, likely duration of delay and its cause(s) at the earliest**. After receipt of the bidder's notice, the authority shall evaluate the situation and may, at its discretion, extend the bidder's time for performance with or without liquidated damages, in which case the extension shall be ratified by the both the parties by amendment of the contract.

- **C.** If **bidder fails to furnish the performance security** and contract document with LoA within the prescribed time limit, **authority reserves the right to cancel the LoI and** apply all remedies available to him under the terms and conditions of this tender document.
- **D.** If any time, **after acceptance** of equipment /machinery, **GPS finds that accepted equipment / machinery is not as per specifications /make /model / brand / quality /** required features /quantity mentioned in the tender document, the ultimate responsibility for satisfactory performance of the entrusted work shall rest with the supplier.

If in any case the successful bidder(s) does not complete the assignment as per the supply order issued, GPS may take over the task & complete the assignment at the risk and cost of successful bidder(s).

- E. GPS may by written notice of default to the successful bidder, terminate the contract in circumstances detailed hereunder:
 - i. If in the opinion of the GPS, the successful bidder fails to complete the assignment within the time specified in the supply order or within the period for which extension has been granted by GPS to the successful bidder.
 - ii. If in the opinion of GPS, the successful bidder fails to comply with any of the provisions of the contract.
 - iii. In the event of GPS terminating the contract in whole or in part as provided in paragraph
 (i) Above, GPS reserves the right to engage another successful bidder or firm upon such terms and in such a manner as it may deem appropriate.
 Successful bidder shall be liable to GPS for any additional costs; any losses and/or penalty as defined under this tender document until such reasonable time as may be required for the final completion of the work.
 - iv. In the event GPS does not terminate the contract as provided in paragraph (I) the successful bidder shall continue performance of the contract, in which case he shall be liable to GPS for penalty for delay as set out in this tender document until the work is completed.

PERFORMANCE SECURITY

- **A.** The successful bidder shall **deposit performance security** *@* **10% of the PAC value in the form of bank guarantee** from a schedule commercial bank and it will be retained by GPS till the end of warranty /contract period.
- **B.** It shall be responsibility of the successful bidder to keep the performance security valid for a period of 60 days beyond the warranty period /contract period of the assignment and any short fall in performance security will lead to termination of the contract.
- **C.** If the successful bidder **fails to remit the performance security, the EMD remitted by them will be forfeited** by the GPS and their bid shall be held void and null.

FORFEITING OF PERFORMANCE SECURITY

- **A.** The successful bidder shall be required to give satisfactory assurance of its ability and intention to complete the assignment pursuant to given the contract, within the time set forth therein and according to the terms, conditions and specifications of contract. Failing to which, shall lead to forfeit of performance security.
- B. The performance security may be forfeited in case of but not limited to:-
 - Bidder fails to sign the contract within the prescribed time.
 - Bidder denies to execute assignment within validity period of the tender and/or at quoted rates and/or as per the specifications and/or for make /models /brand quoted in

the bid proposal.

- Bidder does not perform/execute the said assignment either in full or in part.
- Bidder does not supply complete working set of equipment/machinery.
- Bidder shuts down the services before the duration as agreed upon.
- Complaints with regard to performance or smooth functioning of laboratory equipments /machinery.
- Degraded or erroneous performance of laboratory equipments /machinery.
- Delay or denial in repair and/or replacement of full set up or part of laboratoryequipments /machinery set up during the warranty /contract period.
- Termination of contract by authority for any breach of any terms, conditions, special conditions, obligations etc mentioned in this document /contract.

INSURANCE

- A. For delivery of goods from warehouse /factory /workshop of the supplier to the delivery location, insurance shall be obtained by the supplier at their own cost equivalent to 100% of the value of the goods on "All Risks" basis including war risks/lock down and strikes etc.
- **B.** It will be the **sole responsibility of the bidder to file the claim**, if any, with the insurance company immediately after delivery of laboratory equipments /machinery at delivery location. GPS shall not bear any responsibility on this account.

FRAUDULENT & CORRUPT PRACTICES

- **A. Fraudulent practice means** a misrepresentation, concealment of any facts or information in order to influence a procurement process or the execution of a contract and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial and/or non-competitive levels and to deprive the GPS of its benefits of free and open competition.
- **B.** Authority will reject a bid proposal and/or disqualify the bidder, if it determines that the bidder has been engaged in corrupt or fraudulent practices in competing for, or in executing contract(s).
- **C. GPS requires that bidders to observe the highest standard of ethics** during the selection process and in execution of contracts. In pursuance of this policy GPS defines the terms set forth as follows :-
 - GPS will reject a proposal for award of assignment, if at any time, it determines that the bidder recommended for award has directly, or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for, or in executing the contract in question; and/or
 - GPS will sanction a bidder or its successor, including declaring ineligible, either indefinitely or for a stated period of time, such bidder or successor from participation in GPS's financed activities, if at any time, it determines that the bidder has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for, or in executing the contract in question; and
 - GPS will have the right to require that, in bidder selection documentation and in contracts financed by the GPS, a provision be included requiring bidders to permit the GPS or its representative to inspect their accounts and records and other documents relating to bidder selection and of the performance of the contract and to have them audited by auditors appointed by the GPS.
- **D. Bidder shall not approach GPS officers/staff** outside of office hours and/or outside the GPS premises, from the time of the bid opening till the time contract is awarded.
- **E.** Any effort by a bidder to influence the GPS officers/staff in the decisions on bid evaluation, bid comparison or contract award may result in rejection of the bidder's proposal out rightly. If the bidder wishes to bring additional information to the notice of the GPS, it should do so inwriting only.

FORCE MAJEURE

- **A. Supplier shall not be liable** for forfeiture of its performance security/ liquidated damages /termination for default /any penalty for delay or for failure to perform its obligations under the contract **for reasons of FORCE MAJEURE**, provided that supplier shall promptly submit delay notice with appropriate cause of delay to the GPS in writing within **10 days** of force majeure.
 - For purposes of this Clause, "FORCE MAJEURE" means an event beyond the control of the supplier and not involving supplier's fault or negligence and which is not foreseeable. Such events may include, but are not limited to, acts of god, acts of public, acts of enemy, LWE problems, acts of government, cyclone, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, lockdowns, acts of the purchaser either in its sovereign or contractual capacity.
 - If a Force Majeure situation arises, the supplier shall promptly notify the authority in writing of such conditions and the cause thereof within **10 days** of force majeure. GPS shall verify the facts and may grant such extension as facts justify. Unless otherwise directed by the authority 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.
 - The rights and obligations of the affected party shall be suspended to the extent they are affected by the Force Majeure. GPS shall not be liable to make any payments to the agency for it being affected on account of Force Majeure.
 - GPS reserves the right to terminate the contract if the Force Majeure continues for more than 15 (Fifteen) days at a stretch.

SETTLEMENT OF DISPUTES THROUGH ARBITRATION

- Any dispute or difference including those considered as such by only of the parties arising out of or in connection with the contract or the execution of the assignments shall be to the extent possible be settled amicably between the parties only.
 If amicable settlement cannot be reached then all disputed issues shall be settled by arbitration.
- **B.** If a dispute of any kind whatsoever arises between the GPS and bidder in connection with, or arising out of, the contract or the execution of the assignments or after their completion and whether before or after the repudiation or other termination of the contract, including any disagreement by either party with any action, inaction, opinion, instruction, determination, the matter in dispute shall be settled by arbitration in accordance with the Indian Arbitration and Conciliation Act, 1996 or any statutory amendment thereof.
- C. Arbitration proceedings shall be held at SUKMA (CG) and the language of the arbitration proceedings and that of all documents and communications between both the parties shall be English only.
- D. All arbitration awards shall be in writing only and shall state the reasons for the award clearly.

CONFLICT OF INTEREST

- **A.** Authority requires **selected bidders** under contract provide professional, objective, and impartial advice and at **all times hold the GPS's interests paramount**, avoid conflicts with other assignments or their own corporate interests and act without any consideration for future work.
- **B.** Bidders shall not be engaged for any assignment that would be in conflict with their prior or current obligations to any other clients, or that may place them in a position of not being able to carry out the assignment in the best interest of GPS. Without limitation on the generality of the foregoing, **bidders and any of their associates considered to have a conflict of interest shall not be engaged under any of the circumstances set forth below :-**
 - If a bidder combines the function of service(s) with those of contracting and/or supply of

equipment / machinery; or

- If a bidder is associated with or affiliated to a bidder or manufacturer as a sub-bidder; or
- If there is a conflict among prior or current assignments, the bidder (including its personnel) and any subsidiaries or entities controlled by him, such bidder shall not be engaged for the award of assignment.

TERMS OF PAYMENT

- **A.** All taxes as applicable on date of invoice including GST shall be payable by the bidder. The rate quoted by bidder shall be deemed to have included all the applicable taxes. The supplier shall be responsible for deposition of applicable GST to the concerned authorities.
- **B.** Mandatorily **GSTIN mentioned invoice** shall be submitted by supplier **in 04 (Four) copies** supported by necessary documents /test certificates, Duly signed and seal affixed Manufacturer's/Supplier's warranty certificate for each equipment /machinery, delivery challans etc, without which payment shall not be released by GPS.
- C. All payments to the bidder shall be subject to taxes as applicable from time to time.
- **D. GPS shall deduct** Statutory **TDS** for Income Tax, GST and any other applicable taxes (if any) as per the rules/ provisions and same shall be deposited with the appropriate authority.
- E. No advance payment will be done under any condition.
- F. Payment shall be released only after all of the following conditions are fulfilled by supplier:-
 - Successful supply, installation and commissioning of the equipment/machinery to the satisfaction of DTC.
 - Completion of free of cost training and/or demonstration for operation/maintenance of the equipment /machinery to the officers/staff of GPS at delivery location to the satisfaction of DTC.
 - DTC submits delivery report about satisfactory installation, training and performance of the equipment/machinery to authority.
- **G.** Claims for escalation /increased rate(s) by supplier shall not be accepted and paid for extended period of contract.
- **H.** Each of the work in the scope of supply order **shall be paid through cheques** in the following stages consistent with the work done as agreed upon, and payment shall be adjusted against the final amount payable :-

CERTIFICATES NOT TO AFFECT RIGHTS OF GPS

The issuance of any certificate by GPS or any extension of time granted by GPS shall neither prejudice the rights of GPS in terms of the contract nor shall they relieve the successful bidder of his obligations for due performance of the contract.

LAWS GOVERNING CONTRACT

The bid document /resultants contract will be interpreted under Laws of India only and subjected to Sukma (Sukma), Chhattisgarh jurisdiction only.

LANGUAGE AND MEASURES

All documents pertaining to the contract including specifications, annexure, schedules, notices, correspondences, operating and maintenance instructions, drawings or any other technical literature shall be in English language only.

The metric system of measurement shall be used in this contract.

CORRESPONDENCE / COMMUNICATIONS

- **A.** All the communication between bidder and authority/GPS shall be in writing only. Notice sent by electronic (email) or any other means shall be effective only on confirmation of the transmission. Notice sent by registered post or speed post shall be effective on delivery only.
- **B.** Any notice to the successful bidder under the terms of the contract shall be served by registered/speed post to the registered/local office of the successful bidder and copy to the successful bidder's Head Office if any.
- **C.** Any **notice to GPS shall be served to Principal, Government Polytechnic, Sukma** by registered post or speed post only.

SECRECY

- **A. Bidder shall treat the details of the contract as private and confidential**, save in so far as may be necessary for the purposes thereof, and shall not publish or disclose the same or any particulars thereof in any trade or technical paper or elsewhere without prior written authorization from GPS.
- **B.** If any dispute arises as to the necessity of any publication or disclosure for the purpose of the contract the same shall be referred to the authority whose decision shall be final and binding.
- **C.** Bidder or his representative should neither disclose the data of assignment nor sell the data or use it for commercial exploitation or research work without the prior written authorization from GPS.

AGREEMENT

The successful bidder shall have to enter into CONTRACT with the GPS within **10 days** from the receipt of LoI from GPS.

DECLARATION OF CONFLICT OF INTEREST

The bidder hereby declares that nobody connected with or in the employment of GPS is not/shall not ever be admitted as partner in the contract.

BID REJECTION

If financial bid of a bidder has been opened on the basis of technical bid of a bidder which has been determined to be substantially responsive to the bidding document and in latter stage it is found that bidder does not meet the eligibility criteria or the technical bid is found substantially nonresponsive, GPS reserves rights to reject such bid of a bidder any time.

CHAPTER -03

SCOPE OF ASSIGNMENT

SCOPE OF SERVICES

- **A.** The role /responsibility of the successful/selected bidder would include all the necessary tasks to execute the assignment as per the bid proposal provided as part of tender document but not limited to this document and as per the specifications given at **ANNEXURE -08** of this document.
- **B.** The successful bidder is required to execute and submit the contract duly signed and witnessed to GPS along with the letter of acceptance (LoA). It should be noted that in the event of failure to submit contract duly filled in within the stipulated period, i.e. 10 (Ten) days from the date of LoI, entire amount of EMD /Performance Security is liable to be forfeited and purchase order may stand cancelled. If supply has been made in the meanwhile, it will be at the risk and responsibility of the supplier.
- **C.** The successful bidder shall supply laboratory equipments /machinery at delivery location on specified date & time given by GPS.
- D. The quoted rate(s) of all laboratory equipments /machinery shall be consolidated per unit rate for delivery location on door delivery basis inclusive of GST, all other applicable taxes, duties and all types of incidental charges (if any) and with minimum warranty of not less than 02 (Two) calendar years from the date of installation free of cost/charge, onsite, unconditional post installation services as mentioned in tender document.
- **E.** The services ancillary to the supply of the laboratory equipments /machinery such as transportation, insurance, registration, roadworthy packing, forwarding, freight, insurance, loading/unloading, installation/commissioning, demonstration, training, training material, hardware, software or training media etc. and any other incidental services, such as installation, provision of technical assistance, demonstration/training etc. shall be the sole responsibility of the bidder.
- **F.** The bidder shall provide proper and damp proof packing of the laboratory equipments /machinery as is required to prevent their damage or deterioration during transit to delivery location.
- **G.** The bidder has to provide same/similar brand and goods of equivalent quality which is/are approved by purchase committee of GPS.
- **H.** The supply, acceptance, rejection, returning back of goods for whatsoever reasons shall be free at delivery location in GPS campus and will not attract any extra cost to authority.

DELIVERY DOCUMENTATION

- A. Delivery of the goods shall be made within 15 (Fifteen) days from the date of purchase order.
- **B.** Within 24 hours of dispatching of goods from go-down/factory/workshop, the bidder shall notify the authority and the insurance company by e-mail the full details of the goods and following documents :-
 - In the event of the order, supplier who is OEM will be required to furnish a certificate to the effect that they are manufacturers of such and such make whereas the Authorized Dealer /Supplier /Agency /Distributor /Stockiest will be required to furnish authorization certificate from OEM. No equipment without this certificate will be accepted.
 - Copies of the invoice with explicitly mentioned GST and IT details, bank account details including IFSC number, goods' description, quantity, unit price & total amount etc;
 - Insurance certificate, if any;
 - Duly signed and seal affixed Manufacturer's/Supplier's warranty certificate;
 - Inspection certificate issued by the nominated inspection agency, if any;
 - In case of imported machinery bill of clearance is required;
 - Two copies of the packing list identifying the contents of each package;

Tender Document for Mechanical Engineering Department - 2021

- **C.** The above documents should be received by the authority before arrival of the goods and, if not received, the purchase order may be cancelled partially/fully or penalty may be imposed on supplier at the discretion of authority.
- **D.** Supplier must supply illustration/working/operating/maintenance instructions and manuals, Trainers, Software and/or Hardware necessary for successful execution of the equipment/machinery, erection/wiring/circuit/assembly details, and any other technical literature for supplied equipments /machinery. These shall be in such details as it will enable the authority or staff of GPS to operate, maintain, adjust and repair all parts of the works as stated in the specifications.

INSTALLATION & DEMONSTRATION

- **A.** The supplier is required to do the installation and demonstration /training for the equipment/machinery free of cost/any charges within 10 (Ten) days of the arrival of goods at the delivery location in GPS campus otherwise, the penalty shall be charged as per penalty clause.
- **B.** In case of any loss or damage to equipment /machinery and other supplies during the carriage/transit of supplies from the source location to the installation site i.e. Delivery location or at the time of installation or demonstration, the supplier has to replace it with new equipment/supplies immediately at his own risk and cost within 10 (Ten) days of the arrival of goods at the delivery location in GPS campus.
- **C.** Authority will not be responsible for any loss or damage to the equipments /machinery during transit and/or installation and demonstration irrespective of the fact that they are insured or not insured or delivery is ex- go down or factory station.
- **D.** Supplier will settle his claim with the insurance company as per his convenience. GPS will not be liable to any type of losses in any form.

WARRANTY PERIOD AND POST INSTALLATION SERVICES

- **A.** The successful bidder shall **guarantee onsite free of cost/charge post installation services** (Replacement and/or repair) as and when required during the assignment period.
- **B.** The equipments /machinery supplied by the successful bidder shall be warranted for satisfactory operation and/or performance and against any defect in material and workmanship including mechanical /electrical /electronic components /parts /spares /accessories /set-ups for a period of not less than **02 (Two) calendar year,** from the date of commissioning.
- C. The selected bidder shall provide minimum three free services during the warranty period of 02 (Two) calendar year.
- **D.** Duly signed and seal affixed warrantee certificates/cards shall be furnished to the authority for supplied equipments/machinery. Also supplier shall provide the documents relating to warranty and defect liability.
- E. The warrantee period shall be extended by the period during which the equipment/machinery remains non-operative due to reasons within control of the supplier.
- F. The warrantee must be free of cost/charge, unconditional, onsite warrantee and the successful bidder shall be responsible for replace/repair the defective equipment/machinery or rectify defect positively within 15 (Fifteen) days upon written notice from GPS failing to which the equipment/machinery will not be accepted and performance security will be forfeited either in full or in part at the discretion of authority. However authority may condone the delay in deserving cases at its discretion.
- **G.** Supplier shall be responsible to **take back the defective equipment/machinery and replace it within 10 (Ten) days** at his own cost and risk.

EXTENSION OF THE TIME

If the completion of installation is delayed due to any reason beyond the control of the successful bidder, the successful bidder shall promptly inform to the GPS in writing of his claim for an extension of time. GPS on receipt of such request may or may not agree to extend the contract/delivery date of assignment as may be reasonable but without prejudice to other terms and conditions of the contract.

REJECTION OF GOODS

A. In the event of any of the supplied equipment /machinery is found defective in material /workmanship /performance or quality compromised or otherwise, and/or not in conformity with the requirements /standards /specifications of this tender document, GPS by written notice shall inform the supplier to rectify the same within **15 (Fifteen) days** from the date of receiving of goods at delivery location.

Failing to which the GPS may:-

- Reject the supplied equipment /machinery and it may be returned back to supplier at his own cost and risk.
- Suspend the contract if the bidder fails to perform any of its obligations under this Contract (including the carrying out of the post installation services)
- Performance security and/or EMD shall be forfeited in full.
- Impose penalty for such rejection up to the 50% cost of the PAC.
- **B.** The successful bidder on receipt of such notices shall rectify or replace the defective equipment /machinery in full and/or part without compromising the performance /warranty at free of cost within 15 (Fifteen) days from the date of notice. If the successful bidder fails to do so GPS may :-
 - Not accept the equipment /machinery if sent back to supplier for repairs /maintenance.
 - At its option replace or rectify such defective equipment /machinery and recover the actual cost involved for the said purpose from the supplier plus **25%** service charges of the cost of such rectification/replacement, from the supplier and/or terminate the contract for balance work /supplies with enforcement of penalty as stated above.
 - Defective materials /workmanship will not be accepted under any conditions and shall be rejected outright without compensation. The successful bidder shall be liable for any loss /damage sustained by GPS due to defective work with enforcement of penalty as stated above.

PENALTY FOR DELAY IN COMPLETION OF CONTRACT

- A. If Authority is not satisfied regarding the genuineness of delay in the supply, installation and commissioning of the equipments /machinery or any extension granted thereto, bidder shall be liable to pay per week penalty of **Two percent (2%)** of the PAC excluding GST/any other applicable tax for every delayed equipment /machinery. For this purpose, the date of taking over shall be reckoned as the date of completion. The total penalty shall not exceed Ten **Percent (10%)** of the PAC. The penalty shall be recoverable from the performance security /invoice provided by the supplier.
- **B.** The delivery period given in purchase order will be the date of submission of delivery report by DTC and not the date of dispatch of the equipment by the supplier or date of receivingequipment at delivery location.
- **C.** In case of delay in delivery of goods, GPS reserves the right to terminate the contract and get all the jobs and/or delayed jobs completed through another agency of its choice. Any extra expenditure that GPS will have to incur for completion of the balance job/s through another agency on account of higher rates quoted by the agency shall be recoverable from the performance security /invoice provided by the supplier. Moreover, GPS shall be entitled to all other legal proceedings as may be required for shortfalls in recovery.
- **D.** If bidder fails to carry out installation /demonstration within **10 (Ten) days** of supply of equipments at GPS, the Authority shall levy a penalty of Rs. 500 per day.
- E. If bidder fails to replace defective items within 15 (Fifteen) days of intimation by GPS the

Authority shall levy a penalty of Rs. 1000 per day.

F. The decision of Authority regarding the reasons for delay, if any, completion of the supply /services shall be final and binding on the bidder.

PENALTY DUE FROM THE SUCCESSFUL BIDDER

All costs of damages and delays for which the successful bidder is liable to the GPS will be deducted from any money due to the successful bidder including the performance security and/or bill/s to be paid for any assignment under GPS.

NON-ASSIGNMENTS

- **A.** The successful bidder shall not assign /transfer /sub-contract the supply orders issued as per this contract or any part thereof to any third party without the prior approval of GPS.
- **B.** If successful bidder transfers /assigns /sublets full or any part of work allocated to him without prior permission from GPS in writing to any third party shall be liable to debar /black listed from any Tender/ Financial Activity of GPS till further orders.

TERMINATION OF THE CONTRACT

- **A.** In case the bidder commits breach of any or all conditions of the contract, GPS without prejudice to any other remedy for breach of contract, will have the right to cancel /terminate the contract in whole or in part by written notice within **07 (Seven) days**. Breach of contract includes, but not limited to the following:-
 - If the successful bidder fails to deliver any or all of the goods within the period(s) specified in the order, or within any extension thereof granted by the GPS; or
 - If the successful bidder fails to perform any other obligation(s) under the Contract. or
 - If the bidder, in the judgment of GPS has engaged in corrupt or fraudulent, undesirable practices or has made any misrepresentations etc at any stage of the bidding process, selection or during the execution of the contract.
- **B.** Without prejudice to any action that may be taken by GPS for non performance or short performance or breach etc, in the event the GPS terminates the contract either in whole or in part, it may procure, upon such terms and in such manner, as it deems appropriate, goods or services similar to those undelivered or short delivered or unperformed services or performed unsatisfactory services as per the quality and standards desired, and the bidder shall be liable to the GPS for any excess costs for such similar Goods or Services. However, the bidder shall continue the performance of the contract to the extent not terminated.

NO CLAIM CERTIFICATE

The Bidder shall not be entitled to make any claim, whatsoever, against the State Government /GPS, under or by virtue of or arising out of this contract, nor shall the State Government /GPS entertain or consider any such claim if made by the bidder.

Bidder shall sign a "No Claim" Certificate in favor of the State Government /GPS within 10(Ten) Days of the supply and services are finally accepted by GPS.

I/We have read all the terms and conditions detailed in chapters 01 to 03 & accept to comply with it in total.

Authorized Signature [In full and with date]: Name and Title of Signatory: Designation: Name of Firm:

ANNEXURE - 01

TECHNICAL PROPOSAL SUBMISSION LETTER

(Proposal must be submitted only on the official letter head of the Firm)

[Location, Date]

Τo,

The Principal, Government Polytechnic, Sukma At Kumharras, Sukma, Malkangiri Road Tah-Sukma Dist -Sukma – 494111 (C.G.)

Dear Sir,

We / I, the undersigned, offer to **Supply, Installation, Commissioning of Laboratory Equipments at Government Polytechnic, Sukma, Chhattisgarh**, as per the guidelines, terms & conditions mentioned in NIT No./GPS/Store/Tender-ME/2021/297, Sukma, Dated 30.10.2021. We/I are/am here by submitting our Proposal which includes the Technical Proposal i.e. **ANNEXURE – 08**.

The enclosed technical proposal includes the authority document of the Authorized Signatory and Consent letters in Original. (We are submitting our Proposal in association with: [Insert the list of partners Member with full name and address of each associated Consultant])

We/I confirm that we/I are qualified as per the Pre-Qualification Criteria specified in tender document. We/I hereby declare that all the information and statements made in this Proposal are true and accept that any misinterpretation contained in it would lead to my/our disqualification.

If negotiations are held during the period of validity of the Proposal, i.e. One Hundred & Eighty (180) calendar days from the last date of proposal submission, we/I undertake to negotiate without any alteration in the staff proposed for the assignment. Our/My Proposal is binding upon us/me and subject to the modifications resulting from Contract negotiations.

We/I undertake, if our/my proposal is accepted, to initiate the services related to the assignment not later than a week from the date of issue of Letter of Intent (LOI).

Thanking You,

Yours Sincerely,

Authorized Signature [In full and with date]: Name and Title of Signatory: Designation: Name of Firm:

ANNEXURE – 02

PROFILE OF THE BIDDER

Sr.	Particular	
01	Full Name and	
	Complete Postal Address	
	of Bidder	
02	Full Name and	
	Complete Postal Address	
	of the Firm	
0.2		
03	Type of firm: (Partnership deed/MoAAoA/	Proprietary/ Partnership/ Pvt Ltd /Public Ltd Company/ Society/NGO
	Society registration as applicable	
	shall be attached)	
	Year of Incorporation/ Registration number	
	(Incorporation certificate /	
	Registration details as	
	Applicable shall be attached) Communication Details	
	Complete Postal Address	
	of Head Office	
	Complete Postal Address	
	of Local Office (if Any)	
	Mahila Numhar(a)	
	Mobile Number(s)	
	Landline Number(s)	
	Fax Number(s)	
1	Email id	
1	Website	
06	Nature of Business	1. OEM with manufacturing facility in India
		2. Authorized Dealer /Supplier /Agency
		/Distributor /Stockiest of OEM)
	Firm PAN Card (attach a copy)	
08	GST Registration(attach a copy)	
09	Confirm whether Bidder is Manufacturer	Yes/No
<u> </u>	Only OEM has to giv	e following particulars
10	Full Name and Complete	
	Postal Address of factory	
L		
	Year of starting manufacturing	
	Whether same/similar materials	
	Manufactured earlier	
	(if yes, give reference)	
13	Yearly/monthly production capacity	

Tender Document for Mechanical Engineering Department - 2021

14	Maximum yearly production achieved so far				
(Only Authorized Dealer /Supplier /Agency /Distributor /Stockiest of OEM has to give following particulars				
	Full Name and Complete Postal Address of the Firm				
	Year of association with OEM (Authorization Certificate shall be attached)				
17	Yearly Turnover				
	Only SSI Unit of Chhattisgarh Stat	te has to give following particulars			
_	Whether the firm is SSI Unit of Chhattisgarh State If yes, write registration No.	Yes/No			
19	Whether documentary evidence Regarding registration enclosed	Yes / No			
20	List of registered Items (Attach list)				
22	Validity Period of registration				
	Whether latest copy of Competency Certificate furnished	Yes/No			

Note:-

- Non disclosure or hiding of information /providing wrong or erroneous or false information /non-acceptance of any of the terms and conditions of tender shall result into the disqualification of the firm.
- Change of the name of company or firm shall be supported by legal resolution as per applicable norms.

Authorized Signature [In full and with date]: Name and Title of Signatory: Designation: Name of Firm:

ANNEXURE – 03

PROFORMA OF GENERAL POWER OF ATTORNEY

(To be submitted in ORIGINAL)

(Notarized and executed on non-judicial stamp paper of ₹ 100/- or above)

GENERAL POWER OF ATTORNEY

Be it known all to whom it concerns that: -Mr./ Ms/ Mrs._____S/o OR D/o OR W/o ______Residing at _____

Mr./ Ms/ Mrs._____S/o OR D/o OR W/o _____ Residing at _____

Mr./ Ms/ Mrs._____S/o OR D/o OR W/o _____ Residing at _____

In short, s/he is fully authorized to do all, each and everything requisite for the above purpose concerning M/s_____and I/We hereby agree to confirm and ratify his/her all and every act of this or any documents executed by my/our said attorney within the scope of the authority hereby conferred on him/her including references of cases to arbitration and the same shall be binding on me/ us and my/ our company/ Corporation/ society/ trust/ firm as if the same were executed by me/ us individually or jointly.

Signatures and Name of the Partners /Directors/Board members/trustees/ Executive council members/ proprietors/ Leaders

Witness (with address) 1. 2. 3.

ATTESTED ACCEPTED

Signature: (Seal and Signature of authorized signatory of Tender offer for the company/ Corporation/ society/ trust/ firm)

ANNEXURE – 04

AFFIDAVIT ABOUT UNDERTAKING BY BIDDER

(To be submitted in ORIGINAL)

(Notarized and executed on non-judicial stamp paper of ₹ 100/- or above)

Name of the firm..... through its authorized signatory Mr./Ms/Mrs.

- **A.** All documents and Information's furnished in tender document, all annexure and supporting documents are complete, correct and true in all respects to the best of my knowledge and belief.
- **B.** I have not suppressed or omitted or hided any information as is required.
- **C.** I am/we are/none of our partner or director is never blacklisted or debarred or terminated by Govt. of India /Other State Govt. / Chhattisgarh State Govt. Departments/Semi Govt. Departments and/or organizations(CG & Other Govt.) / Any institutes of national importance /Universities /Any client in India.
- **D.** At present date there are No judgment, claim, arbitration proceeding or suit pending or outstanding against the firm or its officers at any court of India.
- **E.** The firm never filed any law suits or requested arbitration with regard to any contract within the last five years. (1st April 2016 Onwards)
- **F.** Bankruptcy was never filed by the firm /its subsidiaries /its parent companies.
- **G.** The firm was never cited by any regulatory agency for a safety violation in the last five years. (1st April 2016 Onwards)
- **H.** I hereby authorize Officials of Government Polytechnic, Sukma -494111, and Chhattisgarh to get all the documents verified from appropriate source.
- I. I have read carefully and examined the notice inviting tender, general rules and terms and conditions of the contract, special conditions, all annexure and other documents and rules referred to in the tender document for the Supply, Installation, Commissioning of Laboratory Equipments/Machinery at Government Polytechnic, Sukma 494111, Chhattisgarh.
- J. I hereby tender my rates for the execution of the work for Government Polytechnic, Sukma -494111, Chhattisgarh as specified within the time stipulated in the tender document in accordance with all aspects with the specifications, designs, drawings and instructions with such conditions so far as applicable.
- **K.** I agree to keep the tender valid for **One Hundred & Eighty (180) calendar days** from the due date of submission thereof and not to make any modifications in its terms and conditions.
- L. A sum of ₹ 1, 20,000/-(In words Rupees one lakh twenty Thousand only) is hereby forwarded as Earnest Money Deposit in the form of Demand Draft. If I/We fail to commence or complete the sanctioned order in specified time or fail to fulfill any condition of tender document, I/We agree that the GPS shall, without prejudice to any other right or remedy, be at liberty to forfeit the said Earnest Money Deposit absolutely.

The said Earnest Money Deposit shall be retained by Government Polytechnic, Sukma -494111, Chhattisgarh towards performance security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be required by GPS.

M. I/we hereby declare that I/we shall treat the all documents related to this tender and other records connected with this work as private and confidential and shall not publish /disclose /sell the same or any particulars like information derived from

tender documents or supply order for any commercial exploitation or research work OR use the information in any manner prejudicial to the safety of Government Polytechnic, Sukma -494111, Chhattisgarh /State Government of Chhattisgarh without the previous consent in writing of the authority.

- **N.** I/we shall abide to all the laws and shall be responsible for making payments of all the taxes, duties, levies and other Govt. dues etc. to the appropriate authorities.
- **0.** My/our Firm's GST Registration No. is_____& The PAN No. under the Income Tax Act is_____.
- **P.** I/we shall be responsible for the payment of the respective taxes to the appropriate authorities and should I/we fail to do so, I/we hereby authorize Government Polytechnic, Sukma -494111, Chhattisgarh authorities to recover the taxes due from us and deposit the same with the appropriate authorities on their demand.

Deponent

(Signature of the Authorized signatory)

VERIFICATION

I.....do hereby affirm that the contents stated In Para A to P above are true to the best of my knowledge and belief and are based on my / our record.

Verified that thisat (place) Notary with date.

Deponent () Authorized signatory/for and on behalf of (Affix s e al)

ANNEXURE - 05

Certificate for TDF and EMD

I/We have attached Tender Document Fees and EMD (Bid Security) in the form of Demand Draft of Nationalized Bank in the favor of Principal, Government Polytechnic, Sukma – 49411 payable at Sukma, Chhattisgarh as per the following details:-

Sl. No.		Description				
1.	Non Refundable 7	Tender Document Fee of ₹ 1,000/-				
1	Demand Draft No					
	Dated	/ /2021				
1	Name of Branch					
1	Name of Branch					
2.	Earnest Money Deposit of ₹ 1,20,000/-					
	Demand Draft No					
	Dated	/ /2021				
	Name of Branch					
	Name of Branch					

I/We Agree to following terms and conditions regarding Tender Document Fees and/or EMD:-

- **A.** Tender fees and EMD will be acceptable only in the form of Demand Draft of Nationalized Bank in the favor of Principal, Government Polytechnic, Sukma payable at Sukma, Chhattisgarh.
- **B.** If bidder submits Tender Document Fees and EMD in any other form than described in point on above then bid will be rejected out rightly.
- **C.** DD must be valid for minimum next 90 days from the date of issue.
- **D.** Tender fees is non refundable.
- **E.** EMD shall be returned back to the unsuccessful bidders by speed post only after issue of Letter of Intent (LoI) to the successful bidder.
- **F.** EMD submitted by the successful bidder shall be converted to a part of Performance Security and shall be retained by Government Polytechnic, Sukma.
- **G.** EMD shall be forfeited either in full or in part, at the discretion of Authority on account of one or more of the following reasons :-
 - If any information or document furnished by the bidder turns out to be misleading/ forged /incomplete or untrue in any material respect.
 - > If it is found that bidder has been black listed or barred by any of past clients.
 - > If it is found that bidder has indulged into fraudulent and/or corrupt practices.
 - > If bidder withdraws/amends their bid in any respect during the period of bid validity.
 - > Bidder does not respond to requests for clarification regarding proposed Bid.
 - Bidder fails to co-operate in the Bid evaluation process, and
- **H.** In case of a successful Bidder, EMD shall be forfeited either in full or in part, at the discretion of Authority if successful bidder fails to comply one or more of the following :-
 - > To execute the prescribed Contract Agreement on their quoted rates within the stipulated time or any extension thereof provided by authority.
 - > To furnish Performance Security in prescribed form within stipulated time.
 - To execute assigned works within stipulated time or any extension thereof provided by authority
- I. Authority's decision regarding forfeiture of EMD will be final and binding on the firm.
- J. No interest shall be paid on EMD and performance security.

Authorized Signature [In full and with date]: Name and Title of Signatory: Designation: Name of Firm:

ANNEXURE – 06

FORMAT FOR CERTIFICATE OF AVERAGE TURNOVER

(On CA's Official Letter Head)

TO WHOM SO EVER IT MAY CONCERN

On the basis of verification of books of accountants and other documents produced before me/us and maintained by the Firm, I/we certify that M/s.....is engaged in Supplying/manufacturing of Laboratory Equipments /Machinery.

This is to certify that they have turned over from manufacturing/ supplying of Laboratory Equipments /Machinery in the last three consecutive financial years ending on **31st March, 2021**. (I.e. for FY 2018-19, 2019-20 and 2020-21) as follows:-

Sr.	Financial Year	Turnover from supplying/manufacturing of Laboratory Equipments / Machinery (in INR)
01	2018-19	
02	2019-20	
03	2020-21	
Average of 03 consecutive FY		

UDIN for this certificate is _____

Signature and Seal of CA

ANNEXURE – 07

FORMAT FOR EXPERIENCE CERTIFICATE

(On CA's Official Letter Head)

TO WHOM SO EVER IT MAY CONCERN

On the basis of work completion certificates and other relevant documents produced before me/us and maintained by the Firm, I/we certify that M/s------ have Supplied **Laboratory equipments /Machinery** in last three consecutive financial years ending on **31st March**, **2021**. (I.e. for FY 2018-19, 2019-20 and 2020-21) as per following details:-

Sl. No.	FY of Supply	Name of Client/ Buyer	Total Cost of Supply / Contract in INR	No. of Laboratory Equipments /Machinery supplied
01				
02				
03				
04				
05				

This is to certify that above details are based on work orders along with work completion certificates from same client/buyer produced by the firm and any document (like work order / LoI/ LoA) which is not supported by work completion certificate from same client/buyer has not been considered for this purpose.

UDIN for this certificate is _____

NOTE:

- A. Each of the listed works shall be supported with the copy of work order & Work completion certificate. Work order should clearly indicate the number of Laboratory equipments/ Machinery supplied.
- **B.** Work/Supply order, LoI /LoA etc., will not be acceptable under any conditions unless and until supported by completion certificate from the same buyer.
- **C.** Work/Supply order along with work completion certificate will be considered only i.e. Work orders not supported with work completion certificate will not be considered under any conditions.
- **D.** Non-disclosures of any information related to work/supply order specified above will result in disqualification /black listing of the firm.

Signature and Seal of CA

TECHNICAL BID

:: List of Laboratory Equipment/ Machinery for Mechanical Engineering Department::

Equipm ent/ Machine ry Code	Name of the Equipment / Machinery	Detailed Technical Specifications	Deviations if any	Technical Literature in support of offered specifications and/or Deviations	Technical Literature in support of offered specification sand/or Deviations	Technical Literature in support of offered specifications and/or Deviatio ns
M 01	Beam Apparatus	 Item Code: AM-113 Weight: each of: 1, 2, 5 and 10 kg Length: 1500 mm 60mm x 60mm in cross section duly fitted with steel back plate 				
M 02	Link Polygon Apparatus	• Item Code: AM-102				
M 03	Equilibrium Apparatus	 Item Code: AM-103 One hanger Weight: 50 gms Size: 50x60 cm 				
M 04	Parallelogram of Forces Apparatus	 Item Code: AM-104 One hanger weight: 50 gms Size: 60x50 cm 				

					Page 35 of 74
Law Of Moments Apparatus	 Item Code: AM-121 Weight: 1 kg Wt. Box of: 50 gm Wooden board of size: 60 x 75 cms 				
Cantilever Beam Apparatus	 Item Code: AM-122 Weight set: 100 gm to 1 kg Horizontal arm: 75 cm Vertical arm: of 20 cm 				
Simple Jib Crane Trainer	 Item Code: AM-130 Extension balance: 10 kg Complete on wooden base with 1.2 meter jib Without weights 				
Friction Slide Apparatus	 Item Code: AM-133 Comprising of a 75 x 15 cm wooden Superior Quality: Friction slide apparatus 				
Inclined Apparatus	 Item Code: AM-135 Weight: 2.5 kg Consists: 15 x 60 cm Angle up to 45 degree 				
Worm & Wheel Apparatus	Material -Cast IronCast IronWheel Diameter- 150-200 mm150-200 mmWeight-10-15 Kg10-15 KgTensile Strength- 300-400 Mpa300-400 MpaCorrosion Resistance-YesYesSpeed Control Range- 80 -80 - 4000 r/min				
	Moments Apparatus Cantilever Beam Apparatus Simple Jib Crane Trainer Friction Slide Apparatus Inclined Apparatus Worm & Wheel	Law Of Moments ApparatusWeight: 1 kg Wt. Box of: 50 gm Wooden board of size: 60 x 75 cmsCantilever Beam ApparatusItem Code: AM-122Weight set: 100 gm to 1 kg Horizontal arm: 75 cm Vertical arm: of 20 cmSimple Jib Crane TrainerItem Code: AM-130 Extension balance: 10 kg Complete on wooden base with 1.2 meter jib Without weightsFriction Slide ApparatusItem Code: AM-133 Comprising of a 75 x 15 cm wooden Superior Quality: Friction slide apparatusInclined ApparatusItem Code: AM-135 Comprising of a 75 x 15 cm wooden Superior Quality: Friction slide apparatusWorm & Worm & WheelMaterial -Cast Iron Wheel Diameter 150-200 mm Weight-10-15 Kg Tensile Strength- 300-400 Mpa 300-400 Mpa	Law Of Moments Apparatus• Weight: 1 kg • Wt. Box of: 50 gm • Wooden board of size: 60 x 75 cmsCantilever Beam Apparatus• Item Code: AM-122 • Weight set: 100 gm to 1 kg • Horizontal arm: 75 cm • Vertical arm: of 20 cmSimple Jib Crane Trainer• Item Code: AM-130 • Extension balance: 10 kg • Complete on wooden base with 1.2 meter jib Without weightsFriction Slide Apparatus• Item Code: AM-133 • Comprising of a 75 x 15 cm wooden • Superior Quality: Friction slide apparatusInclined Apparatus• Item Code: AM-135 • Weight: 2.5 kg • Consists: 15 x 60 cm • Angle up to 45 degreeWorm & Wheel ApparatusMaterial -Cast Iron Weight-10-15 Kg Tensile Strength- 300-400 Mpa 300-400 MpaApparatusComprising ce 80 - • Yes Speed Control Range- 80 - Speed Control Range- 80 -<	Law Of Moments Apparatus • Weight: 1 kg • Weight: 25 gm • Wooden board of size: 60 x 75 cms Cantilever Beam Apparatus • Item Code: AM-122 • Weight set: 100 gm to 1 kg • Horizontal arm: 75 cm • Vertical arm: of 20 cm Simple Jib Crane Trainer • Item Code: AM-130 • Extension balance: 10 kg • Complete on wooden base with 1.2 meter jib Without weights Friction Slide Apparatus • Item Code: AM-133 • Extension balance: 10 kg Friction Slide Apparatus • Item Code: AM-135 • Complete on wooden • Superior Quality: Friction slide apparatus Moments Apparatus • Item Code: AM-135 • Complete on wooden • Superior Quality: Friction slide apparatus Moments Apparatus • Item Code: AM-135 • Weight: 2.5 kg • Consists: 15 x 60 cm • Angle up to 45 degree Worm & Wheel Apparatus • Item Code: AM-135 meter • Cornsine Resistance vers Worm & Wheel Apparatus • Item Code: AM-135 meter • Consist: 15 x 60 cm • Angle up to 45 degree Momenter • Speed Control Range- 80 - 80, 4000 r/min • 0.400 r/min	Law Of Moments Apparatus • Weight: 1 kg • Wt. Box of: 50 gm • Wooden board of size: 60 x 75 cms Cantilever Beam Apparatus • Item Code: AM-122 • Weight set: 100 gm to 1 kg • Horizontal arm: 75 cm • Vertical arm: of 20 cm Simple Jib Crane Trainer • Item Code: AM-130 • Extension balance: 10 kg • Complete on wooden base with 1.2 meter jib Without weights Friction Slide Apparatus • Item Code: AM-133 • Comprising of a 75 x 15 cm wooden • Superior Quality: Friction slide apparatus Inclined Apparatus • Item Code: AM-135 • Weight: 2.5 kg • Consists: 15 x 60 cm • Angle up to 45 degree Worm & Wheel Apparatus Material Cast Iron Wheel Diameter: 150-200 mm Weight: 10-15 Kg Worm & Wheel Apparatus Material Cast Iron Wheel Diameter: 150-200 mm Weight: 10-15 Kg

				 Page 36 of 74
M 11		Item Code: CLAM-44		
	Single	Material – Cast Iron		
	Purchase	Load drum Dia- 7.5cm		
		Effort wheel Dia- 25 cm		
	Winch Crab	The teeth of this pinion wheel shall mesh with another(spur)		
		toothed wheel of 30 cm diameter		
		Item Code: CLAM-45		
M 12	Double	Material – Cast Iron		
	Purchase	Load drum Dia- 7.5cm		
		Effort wheel Dia- 25 cm		
	Winch Crab	The teeth of this pinion wheel shall mesh with another(spur)		
		toothed wheel of 30 cm diameter		
M 13	Screw Jack	Screw of V pitch of 5mm		
		Material – Cast Iron		
M 14	Bench vise			
	table	16'X4'X3'10", Heavy Wooden (8 cm Thick)		
		10 X4 X5 10 , Heavy wooden (8 em Hinek)		
NI 15	Fitting shop			
M 15	accessories set	DIPLOMA ENGG TRAINER KIT		
	Table Hand			
M 16	drilling machine	4'X3'X1 1/2		
	forcarpentry	T AJ AT 1/2		
	shop			
	Company at			
M 17	Carpentry shop tools	DIPLOMA ENGG TRAINER KIT		
	10015			
	Carpentry			
M 18	table	4'X4'X2 ½'		

Page **37** of **74**

		Page 3	7 of 74
		Specifications-	
		Surface of Table 1050 X250 mm No of Spindle 6 Speed Face of Body 9"	
	Milling	No of Tee Slots 3	
	machine	Size of Tee Slots1/2 InchesSwivel Either1145 mmSide of CentreCross180 mm	
	Experimental	Vertical Traverse 380 mm	
	capability: -	Longitudinal 480 mm	
M 19	• To identify the main parts	Traverse Standard Arbor 1" Taper	
	details of	of Spindle M.T. 3	
	machining operation	Range of Spindle 60 to 545 rpm Speed	
	performed conventional	Dia of Spindle2.5 InchesNo of3(0.9 to 2.25)	
	machine	Longitudinal Per minute) Feed	
		Electricals 2 H.P.	
		Coolant Tank 20 Ltr Capacity	
		Floor Space 35" x20"	
		Height60"Weight1000Kgs	
M 20	Wooden bench vise	Size-8" material-steel	

Page 38 of 74

		Specification-		
		Type – Semi Automatic		
		Drive type– Gear		
	Shaper	Motor required - 3 H.P. (A.C.)		
	machine	Approximate net weight - 1600 Kg.		
		Length of Ram – 1325 mm		
		Maximum working stroke of Ram- 660 mm		
	Experimental capability:-	Tool slide traverse – 150 mm		
M 21	cupuonny.	Horizontal traverse of the table 600 mm		
	• <i>To identify the</i>	Size of base plate – 1625mm X 585 mm		
	shaper machine and driving	Ram bearing in column-31 inch		
	mechanism of	Ram bearing in width 12 inch Max.		
	mechanical and hydraulic	Distance from table to ram.16-inch Mn		
	shaper.	distance from table to ram 2-inch		
		Speed Nos. 3		
		Length and width of cross slide 38x12 inch		
		Top clamping surface of table. 25x15 inch		
M 22	Sheet metal working tool	DIPLOMA ENGG TRAINER KIT		

Page **39** of **74**

		Specifications-		
M 23	Sheet bending machine	Type – ManualSheet Thickness- up to 10 mmBending Radius – 10 to 50 mm maxBending MaterialMild SteelSize4 feetAutomation GradeManualAutomatic GradeManualMax Thickness22 gauge		
M 24	Solderingiron	DIPLOMA ENGG TRAINER KIT		
M 25	Low lamp	DIPLOMA ENGG TRAINER KIT		
M 26	Grooving toolor grooving bar	DIPLOMA ENGG TRAINER KIT		
M 27	Measuring tools- steel rule	12", 6"		
M 28	Vernier Caliper	150mm, 0.1mm L.C		

M 29	Micrometer	0.01mm L.C		
M 30	Wire Gauge	DIPLOMA ENGG TRAINER KIT		
M 31	TPI (thread per inch tool)	DIPLOMA ENGG TRAINER KIT		
M 32	Try square	6"		
M 33	Spring Caliper	6"		
M 34	Inside spring caliper	6"		
M 35	Outside spring caliper	6"		
M 36	Jenny caliper	6"		
M 37	Marking tool- scriber	DIPLOMA ENGG TRAINER KIT		
M 38	Cutting tool Cold chisel	1",1/2",1/4"		
M 39	Hot chisel	1",1/2",1/4"		
M 40	Swage block	DIPLOMA ENGG TRAINER KIT		

M 41	Anvil	DIPLOMA ENGG TRAINER KIT			
M 42	Claw hammer	1lbs & ½ lbs each			
M 43	Ball pin hammer	llbs			
M 44	Hacksaw Frame	DIPLOMA ENGG TRAINER KIT			
M 45	Cross cut chisel	¹ / ₄ " x 4"			
M 46	Markingblock	DIPLOMA ENGG TRAINER KIT			
M 47	Tool Grinding Machine	Specifications-Power - 2 HPSpindle speed - 6400 RpmMaximum grinding diameter - 150 mrVoltageVoltage420 VoltageWeight (kg)Power Consumption2 HPIron	lt		

		Specifications-		
		Capacity- 4 jar		
		Type- Box type		
		Color- Black		
M 48	Solar Cooker	Usage/Application- Domestic		
		Power Source- Solar		
		Housing Material- Metal Wooden Base		
		Specifications-		
		Capacity- 100 LPD		
	Solar water heater Systemwith Flat	Type of collector – flat plate collector		
M 49	plate	Tank material- Aluminium		
	collector	Solar water heater type – Glass tube type water		
		heater Installation type – Wall Mounted		
		Specifications-		
		Usage/Application- Outdoor		
		Type- Solar		
		Load Power-9W		
M 50	Solar street light	Lighting Type- LED		
		Battery Capacity-11.1V 11Ah		
		Power Source-Solar		
		Battery-Li-ion		
		Sensor Type-PIR Motion Sensor		

M 51	Bio-gas plant.	WORKNG MODEL	
		Product Dimensions 14.7 x 14.7 x 15.7 cm	
		Color - Multi	
		For following solid section	
		A triangular prism,	
		A rectangular prism,	
		A cube,	
		A cylinder,	
		A cone,	
	Basic wooden	A triangular pyramid,	
M 52	Geometrical Solids	A squarepyramid,	
		A sphere,	
		An ellipsoid,	
		An ovoid,	
		Hexagonal prism,	
		Pentagonal prism,	
		Square prism,	
		octagonal prism,	
		Hexagonal pyramid etc	

		Product Dimensions 14.7 x 14.7 x 15.7 cm
		Color - Multi
		For following solid section
		A triangular prism,,
		A rectangular prism,
		A cube,
		A cylinder,
		A cone,
	Wooden cut section of	A triangular pyramid,
M 53	different	A squarepyramid,
	Geometrical Solids	A sphere,
		An ellipsoid,
		An ovoid,
		Hexagonal prism,
		Pentagonalprism,
		Square prism,
		Octagonal prism,
		Hexagonal pyramid etc.
		Footstep bearing,
	Model of Machine section	Tool post,
	(tool post,	eccentric,
M 54	eccentric ,stuffing box)	stuffing box,
	,sturning DOX)	connecting rod etc.

Page **45** of **74**

			· · · · · · · · · · · · · · · · · · ·	 Page 45 of 74
		Knuckle joint		
		Cotter joint		
	Model of	Pin joint		
M 55	different types of Joint	Bolted joint		
	01 Joint	Screw joint etc.		
		Standard specification with all accessories		
		Specifications-		
М 56	Rockwell Hardness Tester Experimental capability: - • To determine the hardness of metallic material by Rockwell hardness test	 Loads - 60,100, 150 kgf Machine Height - 635mm Maximum Test Height - 230mm Depth of Throat- 133mm Initial Load - 10kgf Net weight: 75kgf Size of base : 171 x 423mm Standard Accessories- Testing table 50mm Dia - 1 pc. Testing Table 38mm Dia with 'V'groove for round jobs 6 to 45mm dia. 1 pc. Diamond Indenter 1 pc. Steel ball indenter 1/16" 1 pc. Test Block Rockwell 'C' 1 pc. Test Block Rockwell Superficial 'N' NIL Allen Spanners 5 Pcs Clamping Device 1 pc. Dash Pot Oil 1 Book		
		Rubber bellow for elevating screw protection 1pc. Instruction Manual 1 Book		

·				 Page 46 of 74
		Display Type : Manual		
	Brinell Hardness	Model Number : 4857		
	tester	Weight : 100kg		
		Condition : Refurbished		
	Experimental capability:-	Brand : TEI		
M 57	To examine deformation of metal specimen when hardened steel specimen is pressed into it under different normal loads	SPECIFICATION Automatic load selection with automatic zero setting in dial gauge. For Brinell test major load is 187.5 kgf. Brinell hardness scale such as HB is obtained by using different type of indenter.		

Page 47 of 74

	1			Page 47 of 74
		Specifications- To perform Charpy & Izod test		
		Capacity- Charpy: 300 Joule, Izod: 170 Joule		
		Drop Height: 300-1200mm		
		Pendulum Drop Angle: (140 Degree forCharpy Test)		
		& (90 Degree for IZOD Test)		
	Impact Testing	Pendulum Effective Wt.: (21.400 Kg forCharpy Test)		
	Machine	& (21.300 Kg for IZOD Test)		
		Pendulum impact energy: 300J (Charpy Test)		
	Experimental	& 168 J for IZOD Test		
	Experimental capability: -	Specimen max weight: 50-60 kg		
M 58	• <i>To determine the</i>	Specimen max dimension: 700mm x 700mm x 700mm		
	ability of the	Drop panel area: 1000x1500mm		
	material to absorb energy	Outside dimension: 1000 x 1500 x 2030mm		
	during a	Weight: 350 kg		
	collision.	Usage/Application – Laboratory		
		Standard Accessories –		
		Charpy Striker- 1 No.		
		Izod Striker- 1 No.		
		Charpy Izod Support Block- 1 No.		
		Specimen Setting Gauges- 2 No		
		Allen key Set - 1 set.		
		Instruction Manual - 1 No.		

Page 48 of 74

		Computerized Universal Testing Machine
		Capacity – 40 Tonne
		Clamping jaws for flat: 0-15 mm
		Driving Method - Hydraulic System
		Accuracy -/+1%
	Universal Testing	Effective Column Interval - 500mm
	Machine	Ram Stroke – 150 mm
	(UTM)	
		SPECIFICATION
	Experimental	Maximum Cap 400 KN Measuring
	capability: -	Range - 0 To 400 KN
	• To test the	Load Resolution in Full Scale- 0.1 KN
M 59	mechanical properties	Load Range with Accuracy of Measurement- 8 To 400KN
	(tension,	Resolution of Displacement- 0.1 MM
	compression etc.) of a given	Clearance for Tensile (Working) 50-700 MM
	test specimen by	Clearance for Compression Test 0-700 MM
	exerting tensile, compressive or	Clearance Between Column - 500 MM
	transverse	Ram Stroke- 200 MM
	stresses.	Piston Speed at No 0-100 MM
		Load Power 1.9
		Voltage- 440V (Phase 3)
		Dimension 2060x750x2180 (LxWxH)
		Weight (approx.)- 2500 kg

Page **49** of **74**

	r	Page 49 of 74
		Standard Accessories·• Clamping Jaws forRound Specimen• Clamping Jaws for Flat Specimen• Pair of Compression Plate for Compression Test• Adjustable Rollers For Transverse Test
M 60	Extensometer for UTM Machine	Finishing : Powder coatedImage: CoatedGauge Length Calculation : AutomaticImage: CoatedLoad accuracy : +1% or -1%Image: CoatedMaterial : MS, SSImage: Coated
M 61	Fatigue Testing Machine Experimental Capability: • To performed to measure the reduction in stiffness and strength of materials under repeated loading and to determine the total number of load cycles to failure.	Specifications- Type of testing Machine - Material FatigueTest Frequency : 50 Hz Counter : 0 to 999, 999 Times Power Source : Electric Stroke : 75mm Voltage : AC 220V Width : 25mm Weight - 120 Kg Maximum bending moment - 200 kg cm Bending moment - 200 kg cm Gripping diameter of specimen (mm)12 , Rotating (rpm) 4200 , power required (HP) 0.5, Testing Dia of specimen (mm) 8.

			Page 50 c	of 74
		Cut section Models-		
		Good quality self – contained sectional model for		
		demonstration purpose complete with deadweight		
M 62	Lancashire	safety vane, manhole, mud hole. Chock valve high		
	Boiler	steam a low water safety valve, steam and water		
		gauges, regulating draught doors, dampers with		
		counterweights and chimney.		
		Cut section Models-		
		The model is fitted with stop valve, safety valve, water		
M 63	Babcock and	gauge, steam gauge. Manhole, mud hole regulating		
	Wilcox Boiler	draught door, damper with counter weight and		
		Chimney.		
		Cut section Models-		
		Made from actual engine, Cut – section model showing		
	Petrol Engine2	internal constructional details demonstrating the		
M 64	stroke Engine	working of various parts and accessories, provided with		
		flywheel and manually driven, multi Colored for ease of		
		demonstrationmounted on study stand.		
		Cut section Models –		
		Made from actual engine Cut - section model showing		
	Petrol Engine4	internal constructional details, demonstrating the		
M 65	stroke Engine	working of various parts and accessories, provided with		
		flywheel and mounted on sturdy stand, manually		
		driven, multicolored for ease of demonstration.		
	I			

r	I			Pa	ge 51 of 74
M 66	Diesel Engine Experimental Capability:- To study and perform test on four stroke multi cylinder diesel engine at constant speed.	Cut section Models- Made from actual engine, Cut – section model showing internal constructional details demonstrating the working of various parts and accessories, provided with flywheel and manually driven, multi Colored for ease of demonstration mounted on study stand			
M 67	Separating & throttling Calorimeter	Complete self-contained set up for determining drynessfraction of steam, set up consist of a separating and throttling calorimeter, a steam generator			
M 68	Steam turbine	 a. De- Level Turbine (Velocity Compounded) b. De- Level Turbine with Transparent Window (VelocityCompounded) c. Pressure & Velocity Compounded Steam turbine d. Air or Steam Pressure Turbine (Pressure Compounded) e. Pure Reaction Steam Turbine (Hero's) 			
M 69	Carburetor	Cut section Models- showing internal constructional details, demonstrating the working of various parts and accessories, multicolored for ease of demonstration mounted on study stand			

			 Page 52 of 74
		Made out of original used parts, suitably sectioned to	
		demonstrate the internal construction details like	
	Water Cooling	radiator, fan blade, water pump and hose showing the	
M 70	System	minute information, and working of the same, the model	
		will be suitably painted and mounted on a pan wooden	
		base.	
		Demonstration working unit made out of original used	
		parts such as switches, ignition coil, Distributor, spark	
		plugs and a battery for power source, with necessary	
M 71	Ignition System	wiring connections. By switching on the switch and	
		by giving rotation to the Distributor, Sequential Sparks in	
		the spark plugs can be demonstrated.	
		Cut section Models Made from actual Fuel Pump,	
M 72	Fuel Pump	Suitable Cut-sectioned and Multicolored for ease of	
		demonstration. Mounted on Sturdy Base.	
M 73		Cut section Models Made from actual Fuel Injector,	
	Fuel Injector	Suitable Cut-sectioned for ease of demonstration.	
141 / 5		Mountedon Sturdy base.	

			Page 53 of 74
M 74	U-Tube Manometer	Glass tube 50 mm, Complete set up for demonstration of pressure measurement, wall or stand mounted	
M 75	Differential Manometer	Glass tube 50 mm, Complete set up for demonstration ofpressure measurement, wall or stand mounted	
M 76	Piezometer Tube	1 Meter Long	
М 77	Venturimeter setup for measurement of Discharge Experimental capability: • To determine the coefficientof discharge for venturimeter.	 The apparatus consists of: A Centrifugal Mono block Pump 1/2 HP Motor (ISI Kirlosker Make) S.S. Sump Tank 55 Ltr to collect the water. S.S. Measuring Tank 30 Ltr fitted with Piezometer tube to measure the discharge. Damper is used to collect the water in S.S. MEASURING TANK for certain time. Pipe & ISI mark Control Valve and regulating valves are used to circulate water. Bye-pass line is also used to regulate the discharge. This apparatus consists of Acrylic Venturimeter. The openings from inlet and throat are connected to U tube mercury manometer to measure the head difference. Powder coated paint the Tanks are well hence increase the life of tank. 	

Page 53 of 74

Orifice meter setup for neasurementof Discharge Experimental apability: To determine the coefficient of discharge for an Orifice meter.	M 78	
---	------	--

Page	55	of	74
------	----	----	----

		• Centrifugal pump -25mm x 25mm with 1/2 HP motor	
		• M.S. SUMP TANK - 80 X 33 X 30cm	
		• M.S. MEASURING TANK - 45 X 30 X 30cm fitted	
		withPiezometer tube.	
		• Damper is used to collect the water in M.S.	
		MEASURINGTANK for certain time.	
M 79	Pitot Tube	• G.I. pipe of internal Dia 25.4mm (1") and Gunmetal	
	Apparatus	ISI markControl Valve and regulating valves.	
		• Bye-pass line is also used to regulate the discharge.	
		Steel Pitot tube (bend through 90°) fitted 1.5" pipe.	
		• Pressure tapings are provided on Pitot tube and pipe.	
		The pressure tapping are connected to the inclined U	
		Tube Mercury Manometer.	
		• Orifice - Set of 2, Material Acrylic (Diameter 10mm	
		and 15 mm)	
		• Mouthpieces- Set of 3, Material Acrylic (Diameter	
		 10mm with L/D = 1, 2.5 & 4) Constant level tank- Capacity 25 Ltrs. 	
	Orifice &	 MOC SS Supply Tank- Capacity 50 Ltrs. 	
M 80	mouthpieces	• MOC SS Measuring tank- Capacity 30 Ltrs.	
	apparatus	• MOC SS fitted withPiezometer Tube & scale	
		Hook/Pointer Gauge - To measure X-Y co-ordinates of JetPump- FHP capacity make Crompton	
		Greaves / Kirlosker Piping - MOC GI and PVC	
		• Stop Watch- Electronic	
		• Overall Dimension (L x B x H) 120 x42 x180 cm	

-	1		·	Page 56 of 74
		• Test Section : Material Acrylic(One Piece)		
		• Water Circulation: FHP Pump,		
		• Crompton/Sharp make Measuring Tank: Capacity		
		40 Ltrs. fitted with Piezometertube scale. (stainless		
	Bernoulli's	steel)		
M 81	Theorem Apparatus	• Piezometer Tubes: Material P.U. Tubes (9 Nos.)		
		• Sump Tank : Capacity 84 Ltrs. (stainless steel)		
		• Inlet Tank : Capacity 45 Ltrs.(stainless steel)		
		• Stop Watch : Electronic Control Panel comprises of		
		Standard make on/off SwitchMains Indicator Etc.		
		Manometer Fluid : Mercury (Hg)		
		• Bend: 1/2"		
		• Elbow: ½"		
		• Ball valve: ¹ / ₂ "		
		• Gate valve: ¹ /2"		
	Setup for	• Water Circulation: FHP Pump, Crompton makes		
M 82	Friction losses through Pipes	• Flow Measurement: Using Measuring Tank with		
	through ripes	Piezometer, Capacity 25 Ltrs		
		• Pressure Drop Measurement: Differential		
		Manometer,		
		• Sump Tank: Capacity 50 Ltrs made of stainless		
		steel, StopWatch: Electronic		
		· I		·

Page **57** of **74**

Page 58 of 74

			· · · · · · · · · · · · · · · · · · ·	1	
		 Electric supply- 440 V, 50 A. A. C. supplies with earth in connection. This unit is a self-contained recirculation type unit. All the measurements are provided to evaluate the performance of the pump. The system is closed circuit. Water supplied from centrifugal pump. Rope break dynamometer is used to measure the output of turbine. Pressure Gauge and Orifice meter are used circuit. 			
M 84	 Discharge V/s Total head Discharge V/s Input power Discharge V/s Output power Discharge V/s Efficiency of pump 	 This unit is a self-contained recirculation type unit. All the measurements are provided to evaluate the performance of the pump. The system is closed circuit. Specifications: Centrifugal pump of 25x25mm coupled to 1 H.P. A.C. motor (2800 RPM). S.S. Sump tank of size 90 Ltr. Discharge S.S. measurement tank of size 40Ltr. Pressure Gauge, Range: 0-4 Kg/cm² Vacuum Gauge, Range: 0-760 mm/hg Control Valve to control discharge. Control Panel: Electronic Energy meter DPDT Switch 			

Page	59	of	74
------	----	----	----

		The Machine Facilitates The Study Of Dynamic Behavior		
		Of Cam Follower. It consists Of a Dc MotorCoupled to an		
		Extension Shaft That's And Carries a Cam, a Cam		
		Follower Mounted On.		
		The End Of Vertical Bar, Is Loaded On The Cam Face By		
		Compression Spring Is Retained By A Cross		
		Bar Mounted On Two Vertical Pillars Attached To The		
	Cam Analysis	Base Plate. Facility Is Provided To Vary The Pre		
	Apparatus	Compression Of Spring. The Inertia Of Follower Can Be		
		Altered Using Weights.		
		SPECIFICATIONS:		
	Experimental			
1	Capabilities:	1. Cam -Eccentric, tangent and circular ARC type –		
		One each. made of hardened alloy – steel		
	 To study the effect of follower 	2. Follower- mushroom, flat faced and roller type,		
M 85	weight on	Knife edge – one each. made of hardened alloy – steel		
111 00	hounce.	3. Cams and followers are hardened to reduce wear		
		of the surfaces.		
	• To plot N-Q	4. Variable speed motor coupled to camshaft of		
	(follower	suitable range and Variac.		
	displacement v/s	5. 5. A dial gauge to note the follower displacement.		
	angle of	6. A technical manual accompanies the equipment.		
	rotation) curves	7. Weights: 1 kg, 500 gm, 200 gm & 100 gm		
	for different cam follower			
	jouower	• Electric supply - 230 V, A.C. stabilized supply		
		along with earth in connection, single phase.		
		• Bench area - 0.5m x 0.5m x 0.5m height.		
		• Tachometer to measure the jumping speed, (can		
		be supplied extra)		
		• Usage/application – Laboratory uses		
		• The unit is mounted on sturdy base		

	-			 Page 60 of 74
M 86	Static And Dynamic Balancing Machine (Balancing Of Rotating Masses). Experimental Capabilities: • To balance the masses statically and dynamically of a single rotating mass system. • To observation of effect of unbalance in a rotating mass system Utilities Required.	 This Is Suitable For Conducting Experiments On Static Balancing And Dynamic Balancing With Different Weights. This Consists Of Rectangular Frame Of Steel Perfectly Balance With Four Different Blocks. A Protractor Scale Of The Disc Is Provided To Reach Exact Angular Position Of Each Angular Position Of Each Weight To Be Measured. A Linear Scale Provided Below The Frame Provides The Measurement Of Each Weight Along The Shaft. The Unit Is Hanging From A Rigid Steel Frame Through Chain For Dynamic Balancing And Can Be Fixed Rigidly For Static Balancing. Weighing Capacity- up to 1 kg Power source – Manual Usage/application – Laboratory uses Material – Mild steel Design – Stand type Drive motor frictional horse power. Four balance weight each containing a different sized "Eccentric" for varying theunbalance. Additionally, the containers, quality of precision made steel loading balls aresupplied. An A.C. electrical supply for the motor 220/240 V Features: Independent analysis of static anddynamic balancing. Adjustable balance weights with variablemoments. Balance weight position accurately measured both radially and longitudinally. Machine can be suspended on chains for dynamic balancing. Completely portable and suitable for classroom demonstrations. This equipment is designed for carrying out the experiment for balancing a rotation mass system. The aparatus consists of four circular discs mounted on a shaft. The discs are grooved for the attachment of weights at a specific radius. The block are clamped on shaft is rotated by a motor to check dynamic balance of the system. 		

Page 61 of 74

		F		Page 61 01 74
	Universal	Required for Operation:		
	Governor	• Electricity Supply: 220 V AC,		
	Apparatus	• SinglePhase, 0.5 kW.		
		• Floor Space : 1.5 x 1.5 m		
	Experimental	• Digital Tachometer		
	capability:			
	• Determination	Technical Specifications:		
	of characteristic	• Spindle : Material Stainless Steel		
	curve of a sieeve	• Governor Mechanism: Four different types of		
	position against speed of rotation	1		
	for all	Watt Governor		
	governors.	Porter Governor		
	• To study the	Hartnell Governor		
	effect of varying	Proell Governor		
	the mass of the center sleeve in	• Motor: Variable speed, Standard Make, FHP Motor 1		
M 87	Porter and	hp.		
	Proell	• The whole set-up is ingeniously designed and		
	Governor.	schematically arranged on a powder- coated rigid		
	• To study the	structure		
	effect of varying	• Electricity supply- 220 V AC, SinglePhase, 0.5 kW		
	the initial spring compression in	• Speed control Unit- Variable Speed Drive for		
	Hartnell	varying the speed of motor.		
	Governor.	• Rpm Measurement - Digital RPM Indicator with		
	• To study the	proximity switch.		
	determination of	 No. of Sleeve Weights: 2 Nos. 		
	characteristics	 No. of spring of Different Stiffness: 2Nos. 		
	curves of radius of rotation			
	against	Control Panel:		
	controlling force	• Standard make On/Off switch, MainsIndicator etc.		
	(Actual &	Speed Control Unit.		
	<i>Theoretical) for</i>			
	all governors.			

Page 62 of 74

		•	 Page 62 01 74	
		Technical Specifications:		
M 88	Epicyclic Gear Train Apparatus Experimental capability: - • To measure epicyclical gear ratio between input shaft and output shaft also measure input torque holding torque and input torque.	 External type Epicyclic Gear Train: Bearing blocks for input & output shafts. A gear train with Holding drums andhandle. Internal Type Epicyclical Gear Train A Compact gear train (industrial) Motor: Variable speed motor, 1 HP. RPM Measurement: Digital RPM Indicator with proximity switch. Speed Control Unit: Variable Speed Drive for varying the speed of motor. Rope brake arrangement to measure outputtorque and holding torque. The whole set-up is ingeniously designed and schematically arranged on a powder-coated rigid structure 		
		• Floor Area: 1.5 x 2 m.		

	I			I	Page 63 of 74
M 89	Four Bar Mechanism	Working Demo Model			
M 90	Single Slider Crank Mechanism	Working Demo Model			
M 91	Double Slider Crank Mechanism	Working Demo Model			
M 92	Scotch Yoke Mechanism	Working Demo Model			
M 93	White worth Quick Return Motion Mechanism	Working Demo Model			
M 94	Crank & SlottedQuick Return Mechanism	Working Demo Model			
M 95	Slip Gauge	 112 Pieces AS per IS: 2984-1966, slip gauges are available in three different grades i.e. grade O, grade I, and grade II. Item Code: ELSHADDAI-ML-004 Material – Ohns Steel Pack material – Wooden Box Measuring range - M47, M43, M88, M112, M122,M72 			

			 Page 64 of 74
		• Size-Length between Roller : 200 mm	
		• Four concentric checking,	
		Run out Sharpness Taper and degree checking	
M 96	Sine Bar	• Material : Made from high quality Alloy Steel	
		• Design and Accuracy as per - IS: 5259 -1987	
		Range (in): 0 to 1-1/4"	
M 97	Gear Tooth	Graduations (in): .001"	
	Vernier	Accuracy (in): +/0005" per foot	
		Stop Watch Count Timer ModeDouble Count Timer Mode	
M 98		 Display Double Count Timer 	
	Stop Watch	 Display Time Calendar week and alarm time 	
		Time and Day setting	
M 99	Micro-meter	Measuring range of 0-25 mm, 25-32mm, 25-50mm,	
IVI 77	When o-meter	50-63mm, 50-200mm, 50-300mm	
		Type Standard	
	Vernier	• Range- 0-130mm	
M 100	Caliper	Graduation- 0.02mm	
		Depth bar BladeRemarks with Fine Adjustment	
		Specifications:	
M 101	Dial Gauge	• 0-10 mm	
	5	• 0.01 mm LC with magnetic base stand	
		• Range 0-150mm	
		• Vernier graduation 0.02mm	
M 102	VernierDepth	 Accuracy ±0.03mm Repeatability 0.02mm 	
	Gauge	 Base 100 x 6.5mm 	
		Remarks with Fine Adjustment	

			 	Page 65 of 74
M 103	VernierHeight Gauge	 Length -90 cm Height -20 cm Range - 600 mm Width -30 cm 		
M 104	Displacement Measurement Trainer	 LVDT Range :±10 mmMicrometer :0-25 MM Indicator :3¹/2 digit to read up to ±10 mm Resolution :0.1mm 		
M 105	Bevel Protector	 Range: 360 Deg, LC: 5Min, It is capable of measuring from 0 to 360°. The Vernier scale has 24 divisions coinciding with 23 main scale divisions. Thus the least count of the instrument is 5. 		
M 106	Spirit levelwith magnet	12''/300mm-30cm-F		
M 107	Metric type feeler gauge	feeler gauge set made of aluminium		
M 108	Magnetic V block	75mm,90 degree 10mm slot Material: iron Hardened and Ground Accuracy for Squareness Flatness & Parallelism within 5 micron		
M 109	Surface roughness tester	Pickup type: piezoelectric Measuring parameter: Ra,Rz Sampling length I1-0.25 mm I2-0.80mm I3- 2.50mm		
M 110	Plug gauge	H7 20 to 30 mm-s		
M 111	Ring gauge	5 to 10 mm-s		
M 112	Surface plate	630x630x80 mm granite G		

Tender Document for Mechanical Engineering Department - 2021

			 Page 66 of 74
M 113	Sliding mesh gear box (Actual workingmodel) Experimental capability:- • To shift between different speeds using a sliding mesh gear box.	and changed. Complete unit is mounted on a sturdy iron frame.All the necessary parts of gear box such as shafts, gears, lever etc must be provided in actual working form.	
M 114	Synchromesh gear box (Actual working model) Experimental capability:- • To ensure speed of the oncoming gear to be same as that of synchronizing hub.	 Made out of original full size used gearbox, suitably sectioned to show the details of gear mechanism of four forward and one reverse speeds with single plate clutch. A crank lever is provided to demonstrate the working mechanism. With the help lever all the gears must be properly actuated and changed. Complete unit is mounted on a sturdy iron frame. All the necessary parts of gear box such as shafts, gears, lever etc. must be provided in actual working form. Low speed geared motor to drive the gearbox. It must be specially made dissectible for demonstration purposes and also its basic tools must be provided for dissectible and assemble. 	

			Page 67 of 74
M 115	Centrifugal Clutch working model Experimental capability:- • To enables the engine to be started under a no load situation.	 It must be specially made out of full size original used parts such as shoes, springs, drum etc to demonstrate the working of clutch assembly. It must be suitably sectioned to show the details of clutch assembly and working operation. By operating the pedal provided the model must be demonstrated. The entire model is to be mounted on a sturdy iron frame. Suitable color imported painting should be carried out in such a way that different components and sectioned area can be identified easily. It must be specially made dissectible for demonstration purposes and also its basic tools must be provided for dissectible. 	
M 116	Hydraulic Brake system (Actual working model)	 Actual working Brake drums assembly of car and made out of size original parts. Master cylinder should be provided along with Brake paddle and pipeline. Properly demonstrate the brake working when Brake paddle is pressed. Two Brake drum & two Disc drum brake should be provided along this model. Each Brake drum and Disc drum is to be cut sectioned to see the brake working. Pressure gauge should provided for understanding working pressure of the system. 	

	1		Page 68 of 7 4
	Four Stroke,	Fuel type : Petrol	
	Single Cylinder	Type - Four Stroke Single Cylinder Petrol Engine Test	
	Petrol Engine	Rig	
	Rig Test	Material – MS & Stainless steel	
	Free arises and al	Phase – Single	
M 117	Experimental capability: -	Usage/Application- College Laboratory	
	• To determine	No. of Cylinder – 01	
	specific fuel	Voltage- 230 Volt AC	
	consumption, break horse	Fuel tank – 5-6 Ltrs	
	power and break	Type of Engine : Single cylinder, Four stroke,	
	thermal efficiency.	air cooled, Hand start, self Lubricating, petrol engine.	
	ejjiciency.		
		Fuel type : Diesel	
	Four Stroke,	Type - Four Stroke Single Cylinder DieselEngine Test	
	Diesel Engine Rig Test	Rig	
		Material – MS & Stainless steel	
	Experimental capability: -	Phase – Single	
		Usage/Application- College Laboratory	
M 118	 To determine specific fuel 	No. of Cylinder – 01	
	consumption,	Voltage- 230 Volt AC	
	break horse power and break	Fuel tank – 15 Ltrs	
	thermal	Engine power – 5 HP	
	efficiency.	Rope Brake Dynamometer : Belt around water cooled	
		brake drum and Spring balance	

Page 69 of 74

M 119	Plunger type of fuel pump	Material-SS 304, SS 316 Contact material- PTFE Diaphragm, AISI 304, AISI 316, Monel, Alloy 20, Hast alloy B, Propylene		
M 120	BatteryIgnition System	 Actual Demonstration Board of Different types of ignition Systems such as Battery/CB point Ignition System, Electronic Ignition system and Distributor Less Ignition system. CB point Ignition system is actual working Model is mounted on wooden stand with power-coated iron stand. 		
M 121	Steering Gearof Rack & Pinion Maruti Car	Steering Gear Model		

Page **70** of **74**

			1		
	Dynamic Wheel Balancing Machine				
M 122	Experimental capability:- • To gain insight into the causes of undesirable vibration of rotors and to understand static and dynamics unbalance condition of rotors.	 Balance speed : 1000 rpm Display - Digital Weight of Rotor - 10 kg Max. Weight on Each Pedestal - 7.5 kg Motor Power - 0.33 HP Rotor Journal Diameter - 50 mm Voltage : 240 v 			
M 123	Carburetor	Carburetor			
M 124	 <i>capability:-</i> <i>To calculate and compare theoretical COP and actual COP of VCRs cycle</i> <i>To determine the COP of given determine t</i>	 Compression air conditioning unit. Compressor: - Hermetically sealed Condenser :- Air Cooled Evaporator - Conner Coil immersed in insulated 			

Page **71** of **74**

M 125	Vapour Absorption Refrigeration Test Rig Experimental capability:- To carry out steady state measurement on test rig of vapor compression refrigeration system.	 Specifications: Cooling capacity- 41 Ltrs Power – 20 W Evaporator- Natural convection type Condenser – Natural convection type Refrigerant- Water, Ammonia, Hydrogen Generator- Electrically Heated Phase – Single phase Voltage- Electricity 220 Volt AC Temperature Sensor- RTD PT-100 Type 		
M 126	Water Cooler TestRig <i>Experimental</i> <i>Capability :-</i> • To study of refrigeration cycle in water cooler test rig.	 Specification: Compressor: - Hermetically sealed compressor having cooling capacity of (as per water cooler) Condenser: Air cooled condenser made up of copper pipe & Aluminum fins Evaporator: - Material: S.S. Tank, (Sealed Type) Capacity: 5 liters. Capillary Tube: Diameter : suitableMaterial : copper Thermostat : 5 degree C to 15 degree C Temperature Measurement : Digital Temperature sensor: RTD PT-100 Type Voltmeter : 0-300 V *Ammeter : 0-5 A Energy Meter : Single Phase 		

Page 72 of 74

		Specification:	
		• This Laboratory scale working model housed on a	
		M.S. Angle frame further mounted on wheels with	
M 127		instrumentationpanel.	
		• Capacity – 20 kg/day	
	Ice PlantTutor	• Hermetically Sealed Kirlosker Compressor: 1/2 Hp	
		Cap.	
		• Air Cooled Condenser: Fins and copper tube type	
		of capacity. 1/2hp, 12" X 13" X 2Rows	
		• Fan Motor With Blade: 1/35 Hp	
	Experimental Capability:-	• Expansion Device: Thermostatic Expansion	
		Valve(10 To -40 Dec)	
		• Rota meter: 0.6 To 62 Lph (Eureka)	
	•To carry out actual ice formation test.	• Filter Drier: Dm-50(Dan Foss)	
		• Energy Meter: 2.5 – 5 Amps	
		• Thermostat: For Compressor Control (U 50-1018)	
		• Pressure/Compound Gauges: For Hp-Lp	
		Measurement.	
		• Digital Temperature Indicator : 50 To +150°c	
		• Lp/Hp Cutout: Mp15 (Dan Foss)	
		• Refrigerant: R-134a	
		• Brine Tank : Stainless steel tank of 304grade	

Certified that:-

- A. Except aforesaid deviations, the entire order, if placed, with us shall be executed in accordance with your specifications and other term and conditions.
- **B.** Variation/deviations etc. if found, elsewhere in our offer should not be given any considerations while finalizing the tender.

Place:

Authorized Signature [In full and with date]: Name and Title of Signatory: Designation: Name of Firm:

Seal of Firm

ANNEXURE – 09

FINANCIAL BID

(For supply, installation and commissioning of Laboratory Equipments/machinery for Mechanical Engineering Department)

As per Specifications specified in APPENDIX-08 of NIT No./GPS/Store/Tender-ME/2021/297, Sukma, Dated 30.10.2021

Equipment Code	Basic price in INR	GST Amount in INR	Applicable Percentage/ Composition ratio of GST	Net Price in INR
1	2	3	4	5=2+3
M01				
M02				
M03				
M04				
M05				
M06				
M07				
M08				

Certified that:-

- **A.** Above rates are inclusive of all extra but essential accessories/spares/parts/set-ups which are required for successful functioning and best performance of the equipment/machinery.
- **B.** Above rates are for door delivery basis inclusive of GST and all other applicable taxes and duties, roadworthy packing, forwarding, freight, insurance, loading/unloading, installation, commissioning, demonstration, training, training material, hardware, software or training media and all types of incidental charges and with minimum onsite warranty of 02 year from the date of installation as mentioned in tender document.
- C. No other cost will be claimed other than above quoted price & the applicable GST.
- **D.** If there is any change in composition ratio of GST by any authority/court, same shall be applicable during the period of contract.

Place:

Authorized Signature [In full and with date]: Name and Title of Signatory: Designation: Name of Firm:

Seal of Firm