

# **GOVERNMENT POLYTECHNIC, KHAMGAON**

WINNER OF ISTE-NARSEE-MONJEE AWARD-2000

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Gram:- POLYTECH

## **Enquiry Letter**

No. : GPK /Store/inst purchase/MED/2019-20/**21** By post / email

Date: 02/01/2020

## QUOTATION

<u>To,</u>

Sub: Quotation for purchase of equipment

( Due Date:21 /01/2020)

Dear Sir,

Sealed Quotations are invited from eligible and interested manufacturers/ dealers/distributors/ for the following items on the terms and conditions mentioned below.

Sr. No.	Name of the item	specification	Quantity required
1	Real Time Temperature Controller Temperature Controller Test Rig	<ul> <li>This module consists of all necessary components to establish a closed loop speed control of temperature process. PLC acts as ON/OFF or PID controller.</li> <li>The details of this module are as follows:</li> <li>One water bath with heater provided.</li> <li>One AD-590 temperature sensor with the signal conditioner provided.</li> <li>Output: 0-10Volt.</li> <li>One Thyristor converter amplifier to provide 0-220 Volt pulsating AC to the heater coil so that linear control can be established.</li> <li>Input: 0-10Volt,</li> <li>Output: 0-220Volt</li> <li>One 31/2 digit DPM to display the temperature of water bath.</li> <li>Application:     <ul> <li>To study the temperature control using PLC.</li> <li>To study the closed loop control using PID mode by varying the proportional, integral, derivative gain in PLC.</li> </ul> </li> </ul>	1
2	Cylinder Cam With Reciprocating Follower	Working Educational model of Cylindrical cam with reciprocating Follower. - All components made up of metal mounted on wooden base. - Manual input.	1
3	Tangent Cam With Roller Oscillating Follower	Working Educational model. - All components made up of metal which are mounted on wooden base having different colors with naming on each part for easier understanding. Manual input	1

4		Disc Cam - With Knife Edge Follower ; Roller Follower ; Flat Face Follower Spherical Surface Follower	<ul> <li>Working Educational model.</li> <li>All components made up of metal which are mounted on wooden base having different colors with naming on each part for easier understanding.</li> <li>Manual input.</li> </ul>	1
è	5	Wedge Cam With Reciprocating Follower	Working Educational model All components made up of metal which are mounted on wooden base having different colors with naming on each part for easier understanding Manual input.	1
	6	Conical Friction Clutch	<ul> <li>Working Educational cut section model.</li> <li>All components made up of metal which are mounted on wooden base having different colors with naming on each part for easier understanding.</li> <li>Manual or Motorized input.</li> </ul>	1
	7	Simple Watt Governor	<ul> <li>Working Educational model.</li> <li>All components made up of metal which are mounted on wooden base having different colors with naming on each part for easier understanding.</li> <li>Manual or Motorized input.</li> </ul>	1
	8	Porter Governor	<ul> <li>Working Educational model.</li> <li>All components made up of metal which are mounted on wooden base having different colors with naming on each part for easier understanding.</li> <li>Manual or Motorized input.</li> </ul>	1
	9	Hartnell Governor	<ul> <li>Working Educational model.</li> <li>All components made up of metal which are mounted on wooden base having different colors with naming on each part for easier understanding.</li> <li>Manual or Motorized input.</li> </ul>	1
	10	Pickering Governor	<ul> <li>Working Educational model.</li> <li>All components made up of metal which are mounted on wooden base having different colors with naming on each part for easier understanding.</li> <li>Manual or Motorized input.</li> </ul>	1
	11	Reversing Gear (Reverted Gear Train)	<ul> <li>Working Educational model.</li> <li>All components made up of metal which are mounted on wooden base having different colors with naming on each part for easier understanding.</li> <li>Manual or Motorized input.</li> </ul>	1
	12	Geometrical Models Kit	<ul> <li>Material Model set for Prism, Pyramid, cylinder cone, Tetrahedron, cube.</li> <li>All components made up of acrylic.</li> <li>Liquid filled Acrylic material model set to show section plane at different angles of solids and frustum of solids.</li> </ul>	1
	13	Model of Dissected solids	Material model set of Dissected solids of Prism, pyramids, cylinder, cone, Tetrahedron, cube. - All components made up of acrylic. -Acrylic material model set of intersection of solids of Cone with cone, Cone with Pyramid, Cone with Prism, Cylinder with Pyramid.	1

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14	Abrassive Jet Machine Trainer kit	<ol> <li>Abrasive material – Al<sub>2</sub>O<sub>3</sub>/SiC/Glass Beads</li> <li>Abrasive shapes- Irregular spherical</li> <li>Abrasive size – 10-50</li> <li>Mass flow rate- 2~20gm/min</li> <li>Carrier gas composition- Air, CO<sub>2</sub>, N<sub>2</sub></li> <li>Air Jet Velocity- 500-700m/s</li> <li>Pressure – 2-10 bars</li> <li>Flow Rate – 5-30 lpm</li> <li>Mixing ratio –massfloww ratio of abrasive to gas-Mabr/Mgas</li> <li>Stand –off Distance- 0.5-5mm</li> <li>Impingement angle- 600-900</li> <li>Nozzle-Material – WC/ sapphire</li> <li>Diameter- 0.2-0.8mm</li> <li>Life- 10-300 hrs.</li> </ol>	1
15	Electrochemical machine setup	Mechnining Cell Technical Data : Tool Area – $30 \text{ mm}^2$ , Cross head stroke – 150 mm. Job holder – 100 mm opening x 50 mm depth x 100 mm width. Tool feed motor – DC servo type. Control Panel Technical Data : Electrical out put rating 0-300 Amps. DC at any vpltage from 0-20 V. Effiiency – Better than 80% at partial & full load condition. Power factor _ Better than 85. Protections _ over load, short circuit, single phasing. Operation Modes- Manual/Automatic.Timer – 0-99.9 min. Tool Feed 0.2 to 2 mm/min. Z Axis control – forward, reverse, auto forward/ reverse, through micro controller. Supply - 415 v +/- 10%, 3 phase AC, 50 Hz	1
16	Pneumatic Robo arm	AX-12A/AX-18A Smar Robotic Arm Specifications (Standard Arm) 1, Overall length (form base)- 22.25" (56.15 cm) 2.Weight-2.21 pounds/1kg (Standard smart arm- no upgraded) 3.Basse height- 1" (2.54 cm) 4.The base rotation servo is centered in a 4" x 4" square(10.16cm x 10.16cm) 5.Repeatability 2.5 mm 6.Each axis has a 300 <sup>°</sup> range with 1024 steps (0- 29/step) 7.Initial base angle can be set in 45 <sup>°</sup> increments. 8.Precision carbon steel ball bearing turntable. 9.Integrated pem nuts for quick and easy construction. 10.Super strong anodized 0.063 ga. 5052 burshd finished aluminum components. 11.Serch resistant type II anodized in gun barrel gray. 12.(7) Dynamixel AX-12/AX-18 servos (5 axis + 1 gripper with standard smar Robotic Arm configuration, 6 avis with 5 avis ungrade package	1
2.		6-axis with 5-axis upgrade package. <u>Dimensional Information</u> Overall length – 22.26 in/56.54 cm <u>Overall weight – Standard arm with fixed initial angle</u>	а 1

Note # 1- Smart Robotic Arm shown with optional 6 axis upgrade.

Note#2- With the standard fixed initial angle bracket the base to first fixed angle would b3e 3.375 in/8.57 cm.

Grippers- Duel Gripper- The AX-12A or AX-18A dual gripper kit provides a large 9 inch (22.86 cm) gripper

% and 6 Axis Upgrades \_ 5 – Axis Upgrade Hardware, 5 Axis upgrade dehw kit <u>Controllers:</u> CM-700 Contrller

(For trems and conditions and important Instructions please see next page)

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#### **TERMS AND CONDITIONS**

- The bid/quotation should be submitted in **two bid format**.( Technical bid & Commercial Bid)
- The first envelope( Technical Bid) will contain Technical specifications of the product,
   technical literature/ leaflet and other documents mentioned below. It is mandatory to the suppliers to submit following documents without which your quotation will not be considered.
- Covering Letter for tender on the company letter head mentioning official address, Contact No, e Mail address and website (if available) address etc.
- 2. Registration letter of suppliers establishment ( company/ organization)
- 3. GST registration certificate/ Number
- 4. GST Clearance Certificate/ GST Challan for last quarter of the Financial year.(Paid up to July 2019)
- 5. Authorization/ Distributorship certificate from manufacturer. Proof of permission to manufacture the equipment/ item mentioned in the quotation from competent authorities (to be submitted if the bidder is not a manufacturer). *Desired*
- 6. Technical literature / leaflet ( manufacturer /supplier) of the make and model no of equipment quoted.
- 7. Under taking by supplier confirming quality of Equipment / Machinery

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8. Under taking by supplier towards supply of equipment within prescribed date / period and post sales services.

(Additional document may also be asked by undersigned for confirming the details.)

• The second envelope will contain the financial (or Commercial) bid in which the all-inclusive rates / taxes/ GST etc & F.O.R. Destination will be written and signed with the stamp of the establishment in the following format

Sr. No.	Name of the item with specification		Quantity required	All inclusive cost per unit	All inclusive cost for
	Name of the item	Specifications			quantity mentioned.
				5	
	1			2	
				2	
	-				

(Signature)

Rubber Stamp of Organisation

Date -Place -

## **Important Instructions**

- The two envelopes should be sealed with a mention of the type of envelope (technical / commercial or Financial), Reference no., Date of opening the quotation on the front side of the envelope. These two envelopes should be sealed in a third envelope by giving heading "Quotation for supply of "
  Mechanical Engg Department Equipment" and writing complete address of the undersigned as below. (Address :Principal, Government Polytechnic, Khamgaon, Jalamb Road, Khamgaon, Dist : Buldana (M.S.) Pin 444 303)
- The quotations should reach the undersigned on or before dt 21/01/2020
- The material will be checked at this institute.
- No extra charges will be paid for cartage, packing etc. for the material rejected and replaced if any
- Quotations will be opened at 1.00 AM/ PM on Date 22/01/2020 at office of the Principal of Institute.
- Rates should be valid for 6 months from the date of confirmation letter.
- Materials should be quoted for standard makes and minimum pkgs.
- Delivery to the consignee has to be effected within 1 week from the date of issue of purchase order or on or before the prescribed date (*if any*)
- The undersigned reserves the right to accept or reject any offer or all offers without assigning any reason thereof.
- The said process is subjected to the necessary approval from higher authorities.

Principal

### Govt. Polytechnic, Khamgaon

Copy to : 1) Hon. Director, Directorate of Technical Education M. S. Mumbai for information please. It is requested to do needful for uploading the same on website as per instructions issued.

2) Hon. Joint Directorate of Technical Education Amravati Region, Amravati for information please. It is requested to do needful for uploading the same on website as per instructions

issued.

3) Head of *Electronics* Department for information and n a

4) Suppliers as list attached herewith through email and by post

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- 5) Shri Ambatakar, programmer through Registrar, Govt. Polytchnic, Khmgon for uploading on Institute website.
- 6) Institute Notice Board (Maim)