# REPAIR AND MAINTENANCE OF GCT SHAHMANSOOR SWABI
# DAE CIVIL GCT SWABI

## SOR for (Electrical Technology DAE) GCT, SWABI

**PLEASE ORGANIZE YOUR BID AS FOLLOWS;**

1) *Bidder can bid for items as per Schedule of requirement published on KPTEVTA Website and having specialty /experience as described in BSD.*
2) *The Items/Equipment must have Minimum Specification acceptable to the Technical Committee of KP-TEVTA; however the higher specification may be accepted if within the financial limit.*
3) *All bidders must submit the relevant details of bid/proposals duly labelled by a permanent marker with the name of bidder and also to provide documents in soft copies (MS WORD format) on USB drive*
4) *The Supplier shall write in bold & legible letters "Name of the Project" on the envelope.*
5) *The supplier will submit the tender documents properly Computer Typed and each page shall be endorsed and numbered along with terms and condition issued by the KP-TEVTA dully signed by the authorized personnel with company seal; otherwise the bid will not be accepted.*
6) *The bidder will be responsible for standard local warranty given by the manufacturer where applicable*

| Sr. No. | Module/Trainer/Description | Qty |
|---|---|---|
| 02 | AC Fundamentals Trainer along with module and base unit to perform following topics:<br><br>• Measuring AC Voltage, Current and Impedance<br>• Measuring and Setting Frequency<br>• Inductors, Phase Angle, Series vs Parallel, Inductive Reactance and Impedance<br>• Series and Parallel RL Circuits<br>• Electromagnets, Solenoid, Relay<br>• Transformer Windings, Mutual Inductance, Turns and Voltage Ratios, Secondary Loading<br>• Capacitors, Series vs Parallel, Capacitive Reactance<br>• Series and Parallel RC Circuits<br>• RC Time Constants<br>• RC/RL Wave shapes<br>• Series and Parallel RLC Circuits<br>• Series Resonant Circuits<br>• Q and Bandwidth of a Series/Parallel RLC Circuit<br>• Resonant Frequency in a Parallel RLC Circuit<br>• Power Division and Power Factor<br>• Filters: Low-Pass, High Pass, Band-Pass and Band-Stop<br><br>With complete accessories and instruction manual) | 01 |

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| 11 | AC Machines Trainers:<br>(300watts or above)<br><br>• Single phase induction motor<br>• Single phase capacitor start motor<br>• Single phase capacitor run motor<br>• Single phase shaded pole motor (30watt or above)<br>• Single phase repulsion motor<br>• Universal motor<br>• 3 phase motors.<br>  ➢ Squirrel cage<br>  ➢ Phase wound<br>  ➢ Double speed<br>• 3 phase synchronous machine<br>• TECHO meter (Optical)<br>• Resistive, capacitive, and inductive loads<br>• Motor/generator control unit to Operate above machines<br>• Complete measuring instruments and related accessories<br>• AC volt, ampere, Active power, reactive power, inductive power, power factor, frequency, meters<br>• Variable frequency drive control unit<br><br>(With complete accessories and instruction manual) | 01 |
| 17 | Analog Dual Trace Oscilloscope, 40 MHz:<br>The module should include CH 1, CH 2, CHOP, and ALT display modes, an operating instruction manual, one line cord, and two low-capacitance probes.<br><br>(With complete accessories and instruction manual) | 01 |
| 21 | Digital Multimeter with dual measurement displays (Bench Type)<br>DC Voltage :100 mV ~ 1000V DC Current: 100µA ~ 10A<br>Resistance : 100Ω ~ 100 MΩ<br>AC Voltage: 100mV ~ 750V<br>AC Current: 100mA ~ 10A<br>Power Source: 230 V<br>(With all accessories mention in the brochure and instructional manual) | 01 |
| 22 | Digital Clamp on meter:<br>AC Amp: 200A<br>AC Vtg: 600V<br>DC Vtg: 600V<br>Ohms: 20MΩ<br><br>(With complete accessories and instruction manual) | 02 |
| 23 | Digital Multimeter (Hand Held):<br>DC Voltage : 1000 V<br>DC Current: 10A | 02 |

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|---|---|---|
| | Resistance : 20 MΩ<br>AC Voltage: 600 V<br>AC Current: 10 A<br><br>(With complete accessories and instruction manual) | |
| 26 | Single and 3-phase Transformer Trainer:<br>➢ Input single phase: 220~260vac, 2amp<br>➢ Input 3 phase: Phase ~ phase 380 ~ 440vac, 2amp (phase ~ neutral)<br>➢ Output single phase: 80%, 90%, 100%, and 110%<br>➢ Output 3 phase: 80%, 90%, 100%, and 110%.<br><br>• Distribution Transformer<br>• Single-Phase Transformers Supplying Single-Phase Loads<br>• Single-Phase Paralleling<br>• 3-Phase Paralleling<br>• Efficiency calculation of each transformer<br>• Open/no load test<br>• Load/Short circuit<br>• Polarity test<br>• Three-Phase Banking of Single-Phase Transformers | 01 |

**ASSISTANT DIRECTOR (PROCUREMENT)**