



ITE EDUCATION SERVICES PTE LTD

(Subsidiary of Institute of Technical Education)
(RCB No: 200300585W)

Electrical Technology Course

Course Outline

Task 1: Circuit Connection

- Reading of electrical measuring equipment
 - a) Single Scale
 - b) Dual Scale
- Assessment on meter reading
- Connection of electrical measuring instruments
 - a) Ammeter
 - b) Voltmeter
- Circuit connection with resistors, capacitors and inductors
 - a) Series circuit
 - b) Parallel circuit
 - c) Series - parallel circuit
- Circuit connection in a balance load
 - a) Star connection
 - b) Delta connection
- Assessment on circuit connection

Task 2: PVC Trunking

- Prepare trunking bends and bridges
- Complete assembly for PVC trunking installation
- Interpret wiring diagram
- Design and draw circuit for a final circuit
 - a) One-way control of lighting
 - b) Two-way control of lighting
- Socket outlet connection using radial circuit method
- Socket outlet connection using ring circuit method
- 15A socket outlet connection
- Connection of consumer unit
- Selection of overcurrent protective devices
- Assessment on circuit drawing and installation in PVC trunking



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Task 3: Conduit

- Threading of conduit
- Use of conduit bender
- Preparing conduit bends
- Assembling of conduit and accessories
- Drawing of cables into the conduit
- Assessment on conduit assembly

Task 4: Motor Control

- Identify the type of starters
 - a) DOL starter
 - b) Forward/Reverse starter
- Differentiate between power and control circuit
- Draw main circuit for DOL and Forward/Reverse starter
- Draw control circuit for DOL and Forward/Reverse starter
- Connect remote station to starter circuit
- Assessment on motor control circuit with remote station

Task 5: Fault finding on motor

- Connection of motor in star and delta
- Use and read a multi-meter
- How to use a meggar
- Identify possible faults in a motor
- Use of measuring instrument to locate faults in a motor
- Assessment on fault finding in a motor