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**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY: PUTTUR  
(AUTONOMOUS)**

**B. TECH II Year I Semester Supplementary Examinations June 2019  
ELECTRICAL AND MECHANICAL TECHNOLOGY  
(Civil Engineering)**

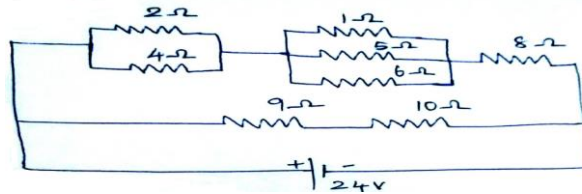
Time: **3 hours**

Max. Marks: **60**

(Answer all Six Units 6 X 10 = 60 Marks)

**UNIT-I**

- 1 Calculate the equivalent resistance of the circuit shown below and determine the current flow through in 6 ohm resistor. Also find the power consumed by the circuit. **10M**



**OR**

- 2 Define the following terms: **10M**  
a.Accuracy b.Precision c.Error d.Resolution e.Sensitivity

**UNIT-II**

- 3 Write short notes on **10M**  
a. Battern wiring. b. PVC conduit wiring system.

**OR**

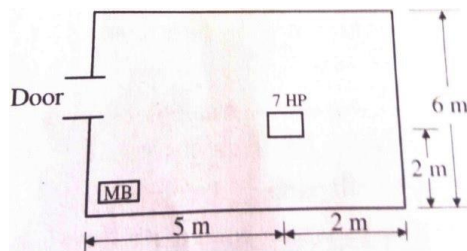
- 4 Define the following terms used in illumination engineering. **10M**  
a. Plane angle. b. Solid angle. c. Luminous flux. d. Luminous Intensity. e. Illumination

**UNIT-III**

- 5 What are the various points to be considered for testing and inspection of electrical domestic wiring system? Explain **10M**

**OR**

- 6 A 7 HP, 400V, 3-phase, 50 Hz induction motor is to be installed in a flour mill as shown in figure. Estimate the quantity of materials required. Show the layout of wiring diagram and assume any missing data. **10M**



**UNIT-IV**

- 7 Explain reciprocating compressor with neat sketch. **10M**

**OR**

- 8 Explain Ducting. What are the requirements and various classifications of ducting? **10M**

**UNIT-V**

- 9 Explain Fast and loose pulley drive with neat sketch. **10M**

**OR**

- 10 Explain Conveyers and Excavators with neat sketch. **10M**

**UNIT-VI**

- 11 a. What is welding? What are the types of welding process? **5M**  
b. What are the applications of welding? **5M**

**OR**

- 12 What is TIG welding? Explain working of TIG Welding process with neat sketch **10M**

**\*\*\* END \*\*\***