

No. of Printed Pages : 4
Roll No.

180935/170935

**3rd Sem / Electrical
Subject:- Estimating & Costing in Electrical
Engineering**

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 In cleat wiring, cleats shall be fixed at regular intervals not exceeding meters
a) 0.5 b) 0.7
c) 0.6 d) 0.4
- Q.2 The maximum permissible value of earth resistance for large Power stations is
a) 1 ohm b) 0.5 ohm
c) 2.0 ohm d) 5 ohm
- Q.3 Painful electric shock is felt when magnitude of current passing through human body is
a) less than 1mA b) from 1 to 8mA
c) from 8 to 15mA d) from 15 to 50 mA
- Q.4 Which type of earthing is best form of earthing and is very cheap in cost
a) Rod b) Pipe
c) Plate d) Strip
- Q.5 What is the maximum number of outlets, which can be connected in a Light & fan sub-circuit?
a) Twelve b) Ten
c) Eight d) Two

- Q.6 The cheap and temporary system of Internal Wiring is
a) Conduit wiring b) Cleat wiring
c) CTS or TRS wiring d) Casing-Capping
- Q.7 The load on each Power sub circuit shall be restricted to
a) 800 W b) 1000 W
c) 2000 W d) 3000 W
- Q.8 For large Substations, which type of Earth electrodes are recommended
a) Rod b) G.I Pipe
c) Copper plate d) Strip
- Q.9 The size of Feeder depends on the value of
a) Voltage b) Current
c) Power d) All of the above
- Q.10 The position of Fuses where incoming cable enters the building is determined by
a) Phase b) Neutral
c) Earth d) All of the above

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 What is Quotation?
Q.12 Write the Performa of Comparative statement.
Q.13 Explain Security deposit.
Q.14 Expand TPIC
Q.15 Write the full-form of MCB
Q.16 Define Requisition.
Q.17 Name any one type of Earthing.

(1)

180935/170935

(2)

180935/170935

- Q.18 What is the maximum load that is permitted in a power circuit?
- Q.19 How many outlets are permitted in a power circuit?
- Q.20 What is the minimum cross sections of conductors that are used for power wiring?

SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. $(12 \times 5 = 60)$
- Q.21 Compare Quotation and Tender.
- Q.22 Explain the various steps followed during a purchase system.
- Q.23 Make a performa for making an Estimate.
- Q.24 What is the purpose of Estimating and costing.
- Q.25 Write the name of all the accessories of Domestic Installations
- Q.26 Discuss the Conduit type of wiring and its advantages and disadvantages.
- Q.27 Explain the various types of wiring.
- Q.28 Prepare the list of materials required for Service Line connection.
- Q.29 What is the difference between Earnest money and Security deposit?
- Q.30 Draw the Schematic diagram of two Pole mounted Substation.
- Q.31 State reasons why earthing is provided in the domestic Installation.
- Q.32 Explain MCB and ELCB with their working.
- Q.33 Discuss various types of Substation.
- Q.34 Why must the connection to earth have a Low resistance.

(3)

180935/170935

- Q.35 Enlist and describe the equipments required for an Indoor Substations.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. $(2 \times 10 = 20)$

- Q.36 A room 18m x 6m x 5m is to be wired in PVC wiring from a single phase 230V Supply. There are two rows of Lamps along the Length of the room. The Number of Lamps may be suitably assumed, Each Lamp is controlled by an independent switch. The wiring along the wall is 4m above the ground and the switches are 1.5 m above the ground. Draw the Installation Plan and determine the quantity of materials required and cost for the material and Labour.
- Q.37 A Large factory having a total installed Load of 400 KW is given 11 KV 3 phase supply. It contains a number of 415V, 3 phase induction motors of large rating. Describe the layout of the necessary apparatus between the high voltage terminals and 50 KW, 415 V, 3 Phase slip ring induction motor with suitable diagrams.
- Q.38 Design 11 KV 3 core underground cable feeder for 750 KVA transformer. The length of the feeder upto substation is 1 KM. Where the feeder gets terminated. Estimate the material required.

(1940)

(4)

180935/170935