

No. of Printed Pages : 4
Roll No.

180935/170935

3rd Sem / Electrical Engg.

**Subject:- Estimating and costing in
Electrical Engineering**

Time : 3Hrs.

M.M. : 100

SECTION-A

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

- Q.1 A tender is an _____ between two parties for execution of work.
a) Requisition b) Contract
c) Consistency d) Any of the above
- Q.2 _____ is an art of assessment of quantities of different items and their cost for execution of work,
a) Estimating b) Tender
c) Quotation d) Requisition
- Q.3 DPIC means
a) Double pole iron clad
b) Double pole iron core
c) Distributed pole iron clad
d) Distributed pole iron core
- Q.4 The best suited wiring for humidity condition is
a) Cleat wiring
b) Casing and capping wiring
c) Conduit wiring
d) Batten wiring

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- Q.5 The danger plate is provided on each pole at a height of about _____ meter from the ground.
a) 1 b) 1.5
c) 2 d) 2.5
- Q.6 The GI barbed wire to be placed around pole is known as
a) danger plate
b) anticlimbing arrangement
c) bird guards
d) GI clamps
- Q.7 The switch is connected between line conductor and earth is known as
a) isolator b) interlocking
c) earthing switch d) circuit breaker
- Q.8 Voltage rating of a pole mounted substation is _____
a) 66kV b) 33kV
c) 11kV d) 5kV
- Q.9 Time required for construction of outdoor substation is _____ than indoor.
a) less b) more
c) much more d) equal
- Q.10 Insulator is located at
a) bus bar b) cross arm
c) conductor d) capacitor bank

SECTION-B

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

- Q.11 Define earnest money.

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- Q.12 Define tender notice.
- Q.13 Define switch.
- Q.14 The fuse has _____ melting point.
- Q.15 Define service connection.
- Q.16 In industries required _____ phase service line.
- Q.17 Full form of ELCB.
- Q.18 Define price list.
- Q.19 Expand PVC.
- Q.20 Maximum number of light/fan point in one sub circuit are _____.

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Name the essential elements of estimating and costing.
- Q.22 Draw the format of Requisition form.
- Q.23 Explain the various methods of calculating labour charges.
- Q.24 Explain different types of conduit wiring system.
- Q.25 Comparison between MCB and Fuse.
- Q.26 Write the steps for estimating and costing of a domestic wiring.
- Q.27 A 10Kw, 440V, 3 phase, 50Hz, Induction motor is to be installed in a workshop. Draw its layout of wiring marking main switch and starter of motor and estimate quantity of material required.
- Q.28 Mention salient features of industrial wiring.

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- Q.29 Explain the substation earthing.
- Q.30 Write the difference between tender and quotation.
- Q.31 Explain the methods of installation of service mains in a two story building.
- Q.32 Name atleast ten components of an 11KV overhead distribution line.
- Q.33 Classify the substations.
- Q.34 Differentiate between overhead charge and contingencies.
- Q.35 Draw location of energy meter, main board and distribution board.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Prepare the specimen tender notice for the installation of indoor substation.
- Q.37 Estimate and costing of two room having size 4mt x 4mt. Mark suitable location of electrical point and other accessories required for domestic installation.
 - i) Draw the installation plan and wiring diagram.
 - ii) Calculate length of conduit and wire.
 - iii) Prepare the list of material required for wiring.
- Q.38 Draw the single line diagram of pole mounted substation of rating 11/440KV, 100kVA.

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