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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

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.

(1)

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(2)

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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.

(2060)

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