

No. of Printed Pages : 4

Roll No.

120945/030945

4th Sem. / Electrical Engg.

Subject : Estimating and Costing

Time : 3 Hrs.

M.M. : 100

SECTION-A

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

- Q.1 A tender is an _____ between two parties for execution of work.
- Q.2 Contingencies are charges due to sudden _____.
- Q.3 Define depreciation?
- Q.4 Expand PVC.
- Q.5 Give an application of two way switch.
- Q.6 Name any two type of wiring?
- Q.7 Full form of ACSR is _____.
- Q.8 Write any two component of an overhead line.
- Q.9 What is the function of stay wire in overhead line.
- Q.10 Name any one protective devices commonly used in substation?

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SECTION-B

Note: Very short answer type questions. Attempt any ten questions out of twelve questions. 10x2=20

- Q.11 Define earnest money?
- Q.12 Write any two quality of a good estimator.
- Q.13 Give two advantage of market survey.
- Q.14 What are the different types of wiring method?
- Q.15 Draw the symbol of two way switch.
- Q.16 Expand DPIC.
- Q.17 Earthing protects against _____.
- Q.18 Define tender.
- Q.19 Name any two type of earthing method.
- Q.20 What is grid substation.
- Q.21 What is difference between wire and cable?
- Q.22 Describe MCB.

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. 8x5=40

- Q.23 What is the purpose of estimating and costing?
- Q.24 Define labour charges. What are different method of calculating labour charges.

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- Q.25 What are the different type of wiring method explain any two of them with the help of suitable diagram.
- Q.26 What are the advantage and disadvantage of conduit wiring?
- Q.27 Draw a neat sketch of pipe earthing and label it.
- Q.28 Differentiate between overhead and underground distribution system.
- Q.29 What are the qualities of good wiring system?
- Q.30 Give comparison between MCB and fuse.
- Q.31 Compare DC and ac system of supply.
- Q.32 Describe various types of line supports.

SECTION-D

Note: Long answer type questions. Attempt any three questions out of four questions. 3x10=30

- Q.33 Determine the list of material along with the cost of erecting 3 phase 100 KVA 50 HZ 11/0.4 KV on double pole structure for pole mounted substation. Also make a neat sketch.
- Q.34 The Assembly Hall of a polytechnic is 25m x 9m x 4.5m is to be provided with light and fan. Calculate the light point require as per Lumens method prepare the complete wiring estimate as per follow.

- a) Draw installation plan and mark location of different electric item.
- b) Calculate the rating of main switch and MCB to be used in distribution board.
- c) Draw single line diagram and wiring diagram.
- d) Calculate the length of wire conduit Pipe and prepare complete list of material required for wiring the hall.

- Q.35 Three phase induction motor of rating 5 HP 50 Hz 415 V is to be installed in a room of size 5 m x 3m x 3.5 m. the motor should be 1 m away from the nearest wall. Prepare the list of the materials and estimate their cost also draw the installation plan single line diagram and wiring diagram.
- Q.36 Prepare a list of material and cost estimate giving service connection by 2 core PVC cable to a house (single storey) at 230 V single phase 50Hz. Its maximum load is 500 Watt the supply is to be given from overhead 415v 3 phase 4 wire line which is 20 m away from the house.