

- ### SECTION-D
- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Draw the installation plane and wiring diagram of a room of size 4mx4m and a verandah of size 4mx3m to provide electrical points suitable for it. Calculate the total length of wire required for wiring room and verandah. Also prepare the list of material with specification and appx. cost.
- Q.37 A small workshop of size 10mx6mx4m high is under construction and to install one 5Hp three phase motor for lathe and one 2 HP three phase induction small lathe. Draw Installation plan. Calculate length of wire, conduit, earth wire etc. and prepare list of material with full specification.
- Q.38 Draw the key diagram of 11/0.4 KV substation and write the name of accessories used.

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**Subject:- Estimating & Costing in Electrical Engg.**

## SECTION-A

Q.1 \_\_\_\_\_ is an art of assessment of quantities of different items and cost there of to plan the amount required for executing a work before actual carrying out the work.

- Q.4 \_\_\_\_\_ is an electro-mechanical device which operates and disconnects the circuit when the current reaches a pre-determined value.

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- Q.5 The sub-distribution board is installed near to \_\_\_\_\_ to save cable and prevent too great voltage drop.  
 a) Load                              b) Fuse  
 c) Ground                              d) Roof
- Q.6 During determine the size of wire, the consideration kept in mind is  
 a) Voltage drop  
 b) Current carrying capacity  
 c) Both a and b  
 d) One of the above
- Q.7 While installing cables for various motors in the workshop, the cables should be laid in concrete \_\_\_\_\_ made out of the floor.  
 a) Pliers                              b) Box  
 c) Pipe                              d) Trench
- Q.8 The factors which are important while finding out the size of conductor for overhead transmission line are  
 a) Line working voltage  
 b) Length of the transmission line  
 c) Permissible voltage drop in line  
 d) All of the above
- Q.9 The chance of accident are low in the  
 a) Overhead system      b) Underground system  
 c) Both a and b              d) None of the above
- Q.10 To support the conductor along the pole is known as  
 a) Tower                              b) Insulator  
 c) Cross arm                      d) Guard wire

### SECTION-B

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

- Q.11 Name the method for determination of labour cost.

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- Q.12 Expand PVC.
- Q.13 Full form of TPICN.
- Q.14 A pole mounted substation is an \_\_\_\_\_ substation.
- Q.15 The switch board and other mounting should be installed at the height of \_\_\_\_\_ meter from the floor.
- Q.16 The size of continuous earth wire in domestic installation is not less than \_\_\_\_\_.
- Q.17 In industries \_\_\_\_\_ phase service line is required.
- Q.18 Full form of ASCR.
- Q.19 The maximum number of points of lights and fans and 5A socket-outlets that can be connected in one circuit is \_\_\_\_\_ and maximum load that can be connected in such circuit is \_\_\_\_\_ watts.
- Q.20 Full form of ELCB.

### SECTION-C

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

- Q.21 Write the difference between tender and quotation.
- Q.22 Enlist the sequence of procedure is adopted to purchase the material for the completion of project.
- Q.23 Compare the cleat wiring with conduit wiring.
- Q.24 Name the various methods of calculating labour charges and explain any one of them.
- Q.25 Explain the use of MCB.
- Q.26 Describe operation of ELCB.
- Q.27 State the purpose/function of main components of overhead line.
- Q.28 Draw the single line diagram of pole mounted substation of rating 11/440KV.

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