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**4th Sem./ Electrical**

**Subject : Estimating and Costing in Electrical  
Engineering**

Time : 3 Hrs.

M.M. : 60

**SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 What is the maximum number of lighting points that can be connected in a circuit?

- a) 5                                      b) 8
- c) 10                                     d) 12

Q.2 Full form of VIR

- a) Vulcanised Indian Rubber
- b) Volume Indian Rubber
- c) Versatile Indian Rubber
- d) All of the above

Q.3 What is meant by petty purchase?

- a) An item purchased from market by purchase assistant with proper formal order
- b) An item purchased from market by purchase assistant without proper formal order

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- c) A single tendering purchase
- d) None of the above

Q.4 According to IS code, the colour for earth wire is usually

- a) Red                                      b) Yellow
- c) Green                                   d) Black

Q.5 A \_\_\_\_\_ transformer is usually mounted on the pole.

- a) Power                                      b) current
- c) Potential                                   d) Distribution

Q.6 Which material is used for fuse?

- a) Copper                                      b) Aluminium
- c) steel                                        d) Lead-tin alloy

**SECTION-B**

**Note:** Objective/ Completion type questions. All questions are compulsory. (6x1=6)

Q.7 What is estimate?

Q.8 What is the full form of MCB.

Q.9 What is Cleat wiring.

Q.10 What is Tender?

Q.11 Always \_\_\_\_\_ pin sockets should be used.

Q.12 What is the standard height of switch board?

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### SECTION-C

**Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 Explain the labour charges.
- Q.14 What are the factors which decide the rating of cable?
- Q.15 What is the purpose of estimate and Costing?
- Q.16 Name any 10 accessories used in house wiring.
- Q.17 Explain types of substation.
- Q.18 What are the advantages and disadvantages of outdoor substation over indoor substation.
- Q.19 Calculate the full load current for a 5HP, 3 phase, 415 Volts Induction motor, assuming power factor 0.85 lagging.
- Q.20 Explain contingency charges?
- Q.21 What is net price, explain with example.
- Q.22 Explain the purpose of comparative statement.

### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 Estimate the quantity required for the construction of 1.5 kilometer overhead distribution line connecting hostel with 11 kV substation of the institute. The load of the hostel is 100 kw.

- Q.24 A room of size 5mtr x 4 mtr x 3.5 mtr is required to be provided with one lamp, one fan, and one fluorescent tube. Each of the point is controlled by individual switch. Mark the location of the electrical point suitably and draw the installation plan. Also calculate the length of wire and other material and prepare a complete estimate list of material required for the wiring the room in concealed conduit wiring system.
- Q.25 Draw the pole mounted substation of rating 200 kva, 11kV/415 volt. List the material required for the installation.

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