S.B. Roll No.....

ESTIMATING AND COSTING

4th/Elect/0522/2152/May'16

Duration: 3hrs **M. Marks=75**

SECTION- A

Q1. Fill in the Blanks: **1.5x10=15**

a) The egg insulator is used at …… wire.
b) For small houses, generally a wire if size ….. is used.
c) After receiving quotations, …….. Statement is prepared.
d) The load on each power circuit should be normally restricted to …….. .
e) PVC stands for …….. .
f) The size of the conductor is based on ……. Capacity.
g) In a staircase wiring…….. switches are used.
h) A good lighting scheme should be free from shadow and ……
i) Large motors should be provided with …… earthing.
j) The light and power circuits should be kept …….

SECTION- B

Q2. Attempt any FIVE questions: **6x5=30**

a. Discuss the points to be considered while designing wiring of domestic installation.
b. What are the important factors to be considered for the preparation of a detailed estimate and economical execution of work?
c. Draw a neat sketch of a pole mounted substation and label all the major components.
d. Discuss important points to be kept in view while carrying out wiring scheme for a motor installation.
e. A 3-phase, 4-wire L.T. line of length 1 km is to be installed. Prepare the list of materials required.
f. Name various types of domestic wiring systems. Discuss any two, giving in detail merits and demerits of each.
g. Discuss different methods of calculation of labour charges.
h. Enlist and explain at least five components of a 11Kv overhead distribution line.

SECTION- C

Q3. Attempt any THREE questions: **10x3=30**

i) Write a short note on:
  a) Indent form(give a specimen copy also)
  b) IE rules for domestic installation.

ii) Draw and Explain key diagram 66/11 Kv substation.
A room measuring 6m x 4m x 3m high is to be provided with 3 lamps, 2 fans and one 5A socket outlet. Draw the installation plan and wiring diagram. Also calculate the length of conductor used.

iii) What is a tender? Discuss at least 10 terms and conditions for inviting tenders.

iv) Draw a neat sketch of a service connection from the suppliers' pole to the consumers MDB in a single storey house having a load of 10 Kw. Prepare the list of material required.