1314 **Code : 15EE54T**

Register Number | | | | | | | | | | |

V Semester Diploma Examination, Nov./Dec. 2018

ELECTRICAL ESTIMATION & COSTING

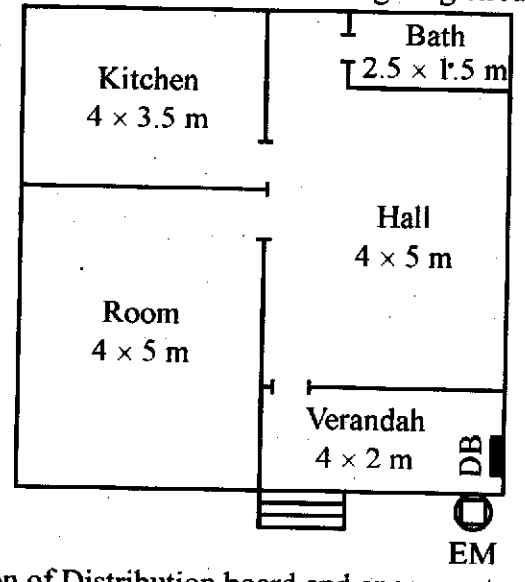
Time : 3 Hours] **[Max. Marks : 100**

Note : Answer **all** the questions.

1. (a) Define estimation. List the importance of estimation. **5**
   (b) Draw a neat diagram of pipe earthing and label the parts. **5**

2. (a) Draw a neat diagram of underground service main and label the parts. **5**
   (b) Prepare an estimate of cost for providing single phase overhead service connection to a residential building having a load of 4 kW. The supplier pole is 15 m away from the building. **15**

3. The sketch given below shows the plan of a residential building, which has to be wired up as an AEH installation in concealed conduit system of wiring.
   (a) Propose the load requirement for lighting. **5**
   (b) Draw the wiring diagram. **5**
   (c) Prepare the schedule of materials for lighting circuit. **8**
   (d) Prepare an estimate of cost for the above lighting circuit. **7**



(Location of Distribution board and energymeter shown)

4. (a) Write the specification of cable used for providing power supply to a 15 HP induction motor. **5**

(b) A 15 HP irrigation pump set is to be installed at the centre of a pump house of size 5 m × 5 m. Assume ceiling weight as 3.5 m. Draw the wiring plan for power circuit. Prepare schedule of materials with specification. **10**

5. Prepare the schedule of materials required with specifications for running of 15 kW long 415 V. LT distribution line. (Assume span length as 50 m) **20**

OR

Prepare the schedule of materials with specifications, required for tapping and extending 11 kV line for a distance of 10 km. Assume average span as 80 m. Assume that the support has to be anchored for every kilometer.

6. Draw the single line diagram of 66 kV / 11 kV, 5 MVA substation and label it. **10**

OR

Prepare the schedule of materials required for running a 100 km long 110 kV single circuit transmission line. Assume average span as 300 m.