B.Tech IV Year I Semester (R13) Supplementary Examinations June 2018
ESTIMATION, COSTING & VALUATION
(Civil Engineering)

Time: 3 hours   Max. Marks: 70

PART – A
(Compulsory Question)
*****

1   Answer the following: (10 X 02 = 20 Marks)
  (a)   What is estimating? State two objectives of preparing estimation
  (b)   State the units of following items: (i) Brick masonry. (ii) Plastering. (iii) DPC. (iv) Doors, windows, ventilators.
  (c)   Tabulate formats neatly of detailed estimate and abstract estimate separately.
  (d)   A single room building is having 3.60 m x 6.00 m internal dimensions with 300 mm thick wall and height of room is 2.30 m. Calculate: (i) Plinth area. (ii) Brick work for single room without considering of deductions for super structure.
  (e)   Explain the terms` Lead´ and `Lift´ for the formation of roads and give the values initial lead and   initial lift
  (f)   Calculate the total length of the bar as shown in figure below.
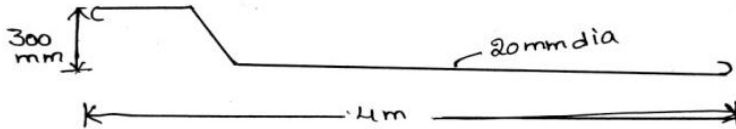
  (g)   List out the type of contracts.
  (h)   What is salvage value?
  (i)   Write short note on scrap value.
  (j)   Define valuation of building and its purpose.

PART – B
(Answer all five units, 5 X 10 = 50 Marks)

UNIT – I

2   Write down specifications for: (i) Painting. (ii) Plastering. (iii) RCC works. (iv) White washing.

OR

3   What is an approximate estimate? State the different approximate methods of estimating civil engineering structures.

UNIT – II

4   Work out the quantities for the following items for the figure shown below:
  (a)   Cement concrete (1:4:8) required for steps.
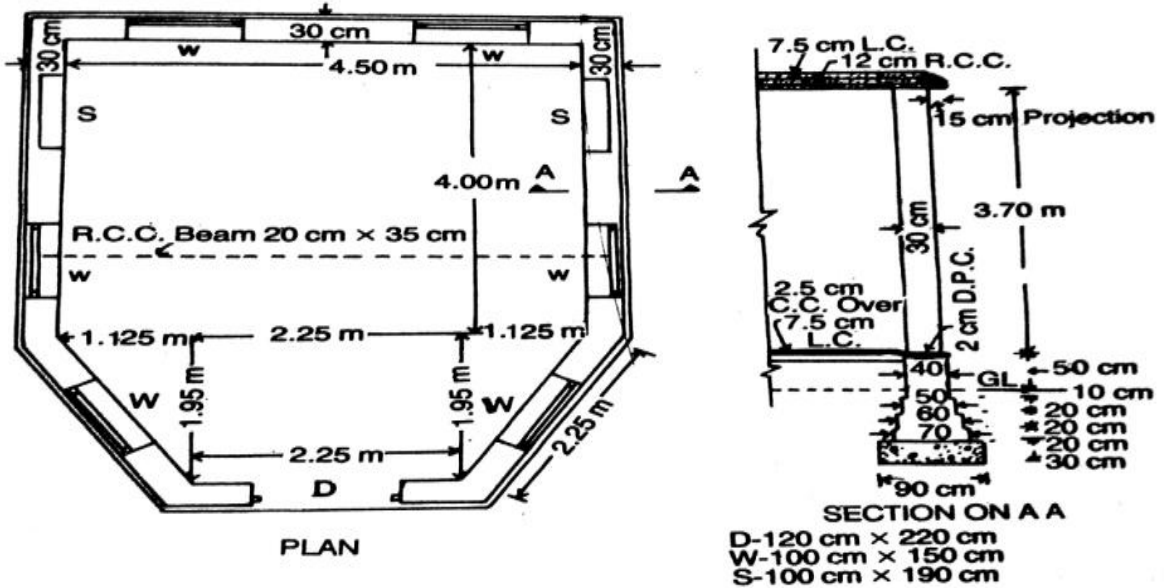 (b)   Brick masonry required for steps.

OR
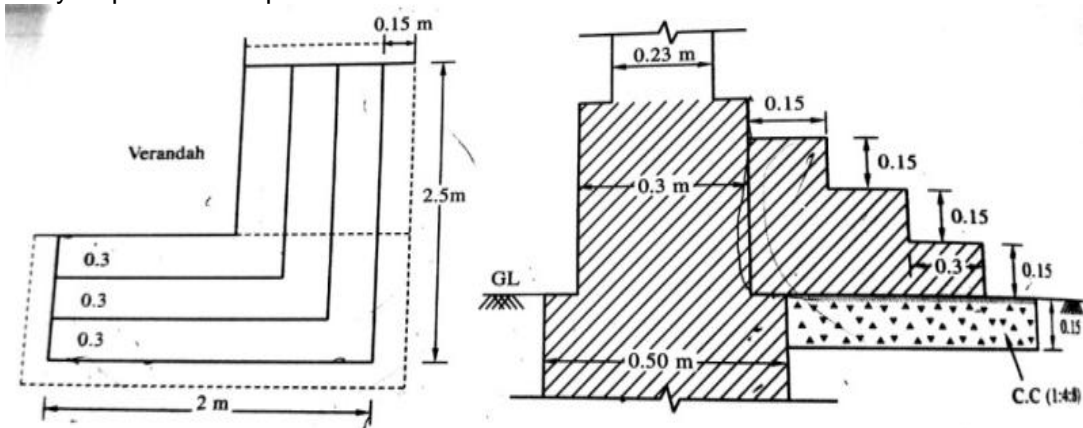
5   Estimate the following quantities for the figure given below for following data:
   (a) Earthwork in foundations.
   (b) Concrete in foundations.
   (c) Brick work in foundation and plinth in 1:6 cement mortar.
   (d) 2 cm damp proof course at plinth level.


PLAN

SECTION ON A A
D-120 cm × 220 cm
W-100 cm × 150 cm
S-100 cm × 190 cm

UNIT – III

6   A road embankment has the following data:

Chainage in m	0	30	60	90	120
G.L in m	131.75	130.96	132.60	133.35	133.50

Calculate the volume of earth work required given that the formation level is 134.00 m at all chainages and side slopes of the embankment are 2:1 and the top width is 15 m.

OR

7   Workout the quantity of reinforcement by preparing bar requirement schedule of a beam as per the drawing given below. Side covers 50 mm.

UNIT – IV
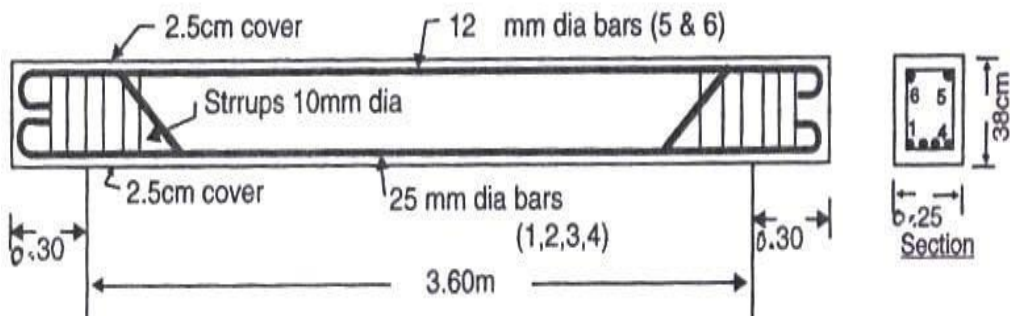
8   What are the contents of a tender document? Enumerate the complete tendering procedure with illustrations.

OR

9   Explain the contract system and the types of contracts in detail.

UNIT – V

10   List and explain general specifications of a second class building.

OR

11   Write detailed specifications of cement concrete (1:2: 4) for M20.

*****