B.Tech III Year I Semester (R15) Supplementary Examinations June 2018
ESTIMATION, COSTING & VALUATION
(Civil Engineering)

Time: 3 hours   Max. Marks: 70

PART – A
(Compulsory Question)
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1   Answer the following: (10 X 02 = 20 Marks)
   (a) What are the main items of work in estimating a building?
   (b) Write in short about the considerations of detailed estimate of structures.
   (c) Define lead and lift.
   (d) Discuss briefly various factors to be considered while preparing road estimates.
   (e) Classify different types of contract drawings.
   (f) Explain rate analysis and sundries.
   (g) What is a contract? List the different types of contracts.
   (h) Discuss briefly various factors to be considered while preparing road estimates.
   (i) Explain damp proof course.
   (j) What are the various methods used for computing the earthworks.

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

UNIT – I

2   Enunciate:
   (a) Earthwork excavation
   (b) Soling
   (c) Concrete in foundation
   (d) Masonry
   (e) Damp proof course

OR

3   Describe the following terms briefly:
   (a) Formwork
   (b) pointing
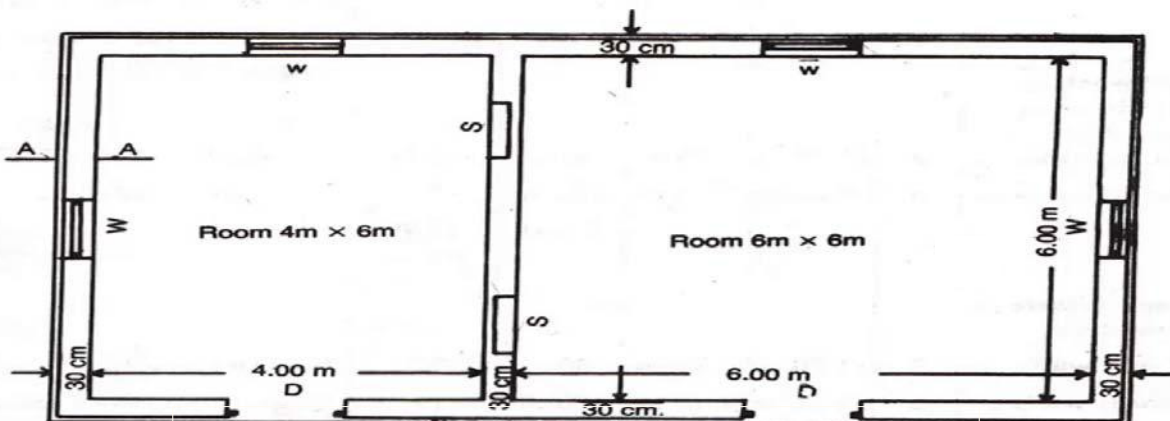   (c) Varnishing

UNIT – II

4 (a) Explain long wall and short wall method.
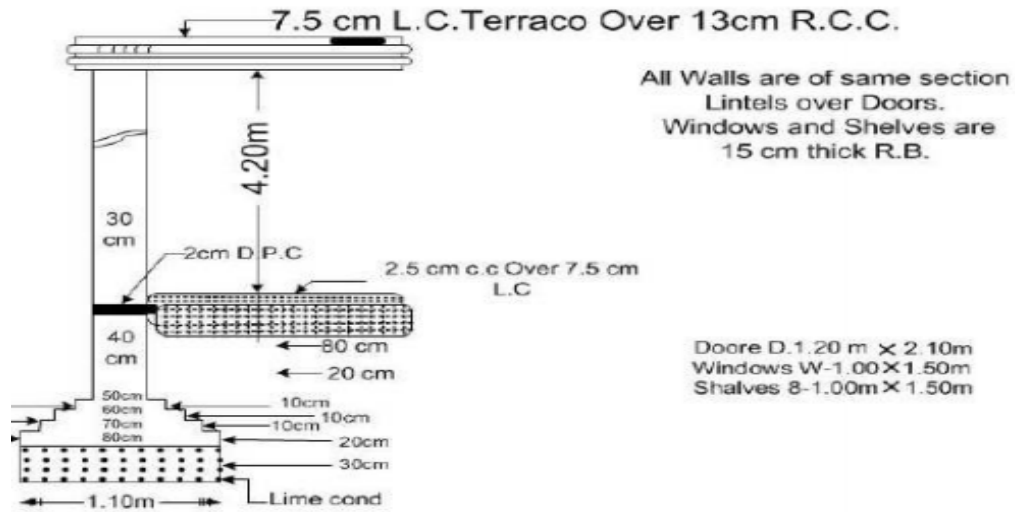   (b) Explain Centre line method in detail.

OR

5   Calculate the quantities of the following items for the building shown in figure below using long wall and
        short wall method: (i) Earth work in excavation. (ii) Brick work in foundation and plinth. (iii) PCC (1: 5: 10)
        below the foundation. (iv) Damp proof course. (v) Brick masonry in CM (1:6) for super structure.

TWO ROOMED BUILDING

PLAN

7.5 cm L.C.Terraco Over 13cm R.C.C.

All Walls are of same section
Lintels over Doors.
Windows and Shelves are
15 cm thick R.B.

2cm D.P.C

2.5 cm c.c Over 7.5 cm
L.C

Doore D.1.20 m × 2.10m
Windows W-1.00×1.50m
Shalves 8-1.00m×1.50m

UNIT – III

6   Prepare an estimate for the portion of a road from chainage 14 to 22 from the data given below. The formation width of the proposed road is 12 m, side slopes 11/2:1 in cutting and 2:1 in banking

Chainage (30 m)	14	15	16	17	18	19	20	21	22
RL of Ground	108.60	109.25	109.40	108.85	108.50	107.25	106.80	107.15	107.20

The road formation is proposed at uniform falling gradient 1 in 200 passing through GL at 14 m chainage. R.L of formation being 108.00 m.

OR

7   The longitudinal section and cross section of simple beam of clear span 5.0 m as shown in figure below. The thickness of the supporting wall is 30 cm workout the total quantity of the reinforcement in the beam.

Figure: Simple Beam
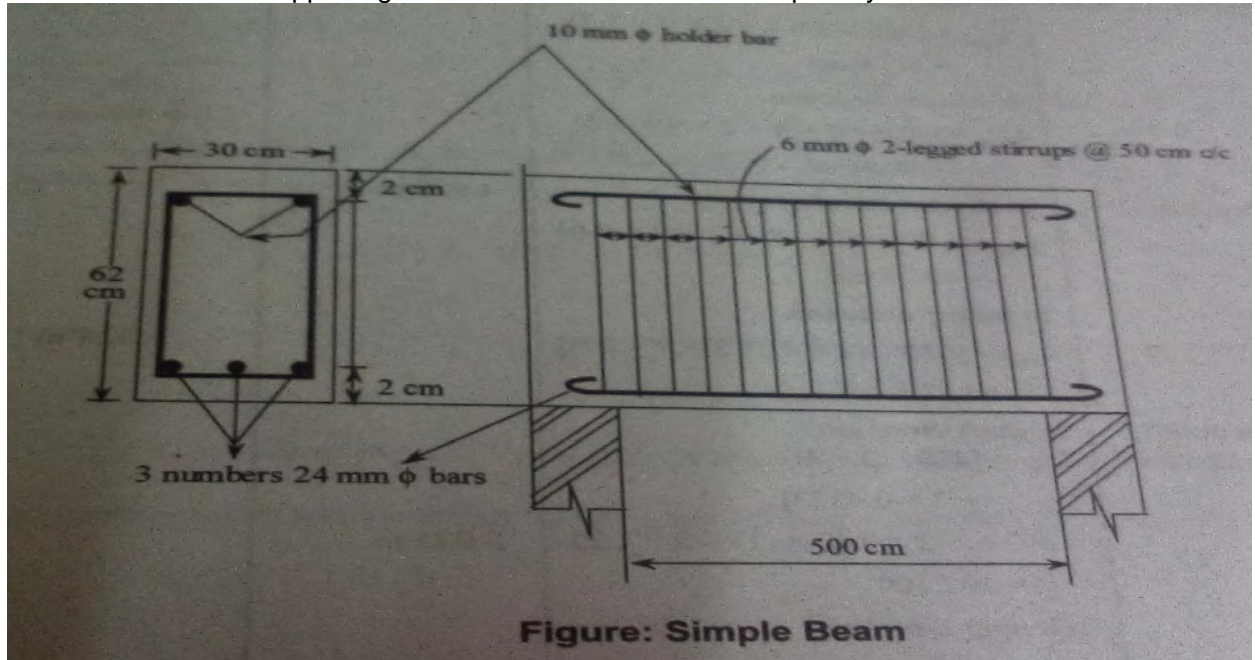
UNIT – IV

8   Discuss in detail about the various elements of construction contract.

OR

9   (a)   Explain in detail about any three types of tenders.
     (b)   What are the criteria to ensure the validity of contract?

UNIT – V

10   (a)   What are the factors affecting rate analysis?
     (b)   Define salvage value and scrap value.

OR

11   (a)   Define valuation and explain the purpose of valuation.
     (b)   Explain capitalized value with a simple example.

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