CRASH COURSE

Seventh Semester B.E. Degree Examination, May 2017
Estimation and Valuation

Time: 3 hrs.

Max. Marks:100

Note: *1. Q. No. ONE is compulsory.*
2. Answer FOUR full questions selecting
any TWO questions from Part B and Part C .

PART – A

1   The plan and part cross-section of a hexagonal room are given in Fig. Q1. Estimate any eight of the following quantities and determine the cost.
   i)   Earthwork excavation in hard soil at Rs. 150/-cum
   ii) Bed concrete in C.C 1 : 4 : 8 at Rs. 3200/- cum
   iii) U.C.R masonry for foundation and plinth at Rs. 3000/cum
   iv) 2 cm thick DPC in C.C 1 : 1.5 : 3 at Rs. 500/- sqm
   v)   Ist class BBM for super structure in CM 1 : 6 at Rs. 4500/- per cum
   vi) Plastering in cm 1 : 6 for inner and outer faces with thickness 12 mm at Rs. 450 per sqm
   vii) RCC for lintels in CC 1 : 2 : 4 at Rs. 4500/- cum
   viii) RCC for slab in CC 1 : 2 : 4 at Rs. 5000/- cum
   ix) RCC for Chejja in 1 : 2: 4 at Rs. 1250/- sqm
   x)   Flooring at Rs. 1400/- sqm.   **(40 Marks)**

PART – B

2   Prepare a detailed estimate of a slab culvert of 1.5m span and 4.00m roadway from the given drawing (Refer Fig. Q2). The general specifications are as follows : foundation concrete shall be of cement concrete 1 : 3 : 6 with stone ballast and coarse sand masonry shall be of first class brick work in 1 : 4 cement coarse sand mortar. Slab shall be of RCC 1 : 2 : 4 with reinforcement as per drawing. Exposed surface of brick masonry shall be cement pointed 1 : 2. Road shall be provided with 10 cm thick wearing coat of 1 : 2 : 4 cement concrete. Work out only quantities.   **(15 Marks)**

3   State different types of estimates and explain in brief any five types.   **(15 Marks)**

4   Write the detailed specifications of any three of the following items :
   i)   Earthwork excavation for foundation
   ii) Bed concrete for foundation in C.C 1 : 3 : 6
   iii) Ist class BBM in C.M 1 : 6
   iv) Mosaic/Terrezo flooring over a bed of 7.5 cms thick 1 : 3: 6 concrete
   v)   I.P.S. flooring.   **(15 Marks)**

PART – C

5   Analyse the rate of any three items from first principles :
   i)   Lime concrete in foundation with 40mm gauge brick ballast in L.C 1 : 2 : 6
   ii) Cement concrete in C.C 1 : 2 : 4 for RCC works
   iii) Ist class BBM in C.M 1 : 6 for super structure
   iv) 20mm thick cement plastering in C.M 1 : 6.   **(15 Marks)**

6 a. Explain lead and lift with reference to earth work. (04 Marks)

b. Estimate the quantity of earth work for the portion of a road 400m length from the following data : Formation width of road = 10 m side slopes are 2 : 1 in banking and 1.5 : 1 in cutting.

Station	25	26	27	28	29	30	31	32	33	34	35
Distance in m	1000	1040	1080	1120	1160	1200	1240	1280	1320	1360	1400
RL of ground	51.0	50.9	50.5	50.8	50.6	50.7	51.2	51.4	51.3	51.0	50.6
RL of formation	52.0	Downward gradient of 1 in 200									

(11 Marks)

7 a. Explain the following terms : i) EMD ii) Security deposit. (05 Marks)

b. Write briefly about administrative approval and technical sanction. (05 Marks)

c. A building is situated by the side of a main road of Rajanukunte Bangalore. The built up portion is 20m × 15m. The building is of first class type and provided with water supply, sanitation and electric fittings, and the age of the building is 30 years. Workout the valuation of the property. Area of land on which building stands is 500 sqm. Assume plinth area rate as 20000/- per sqm, life of building 100 years and cost of land 25000/- per sqm. Rate of depreciation r_d = 1. (05 Marks
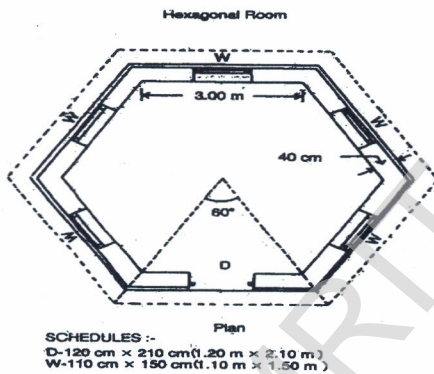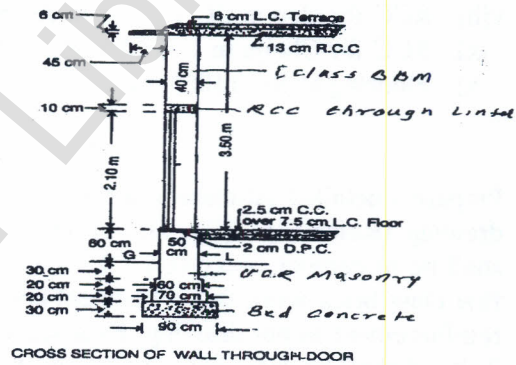

Fig.Q1

Fig.Q2

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