Sixth Semester B.Arch. Degree Examination, Dec.2016/Jan.2017
Estimation and Costing

Time: 3 hrs. Max. Marks:100

Note: *1. Q.No. 1 is compulsory.*
2. Answer any three full questions from Q.No. 2 to 6.

1 The accompanying Fig.Q1 shows the details of a building. Prepare a detailed estimate for below mentioned item of work.
   i) Foundation concrete bed width = 0.8 m, depth = 0.20 m. (07 Marks)
   ii) Foundation S.S. masonry width = 0.5 m, depth = 0.80 m (07 Marks)
   iii) Basement width = 0.4 m, depth = 0.15 m. (07 Marks)
   iv) Plinth concrete, DPC (1:2:4) Width = 0.4, depth = 0.15m (07 Marks)
   v) Roof – RCC roof slab of 10 cm thick. (07 Marks)
   vi) External walls are 30 cm and partition walls (Internal wall) are 20 cm in Brick masonry in cm 1:6. (20 Marks)
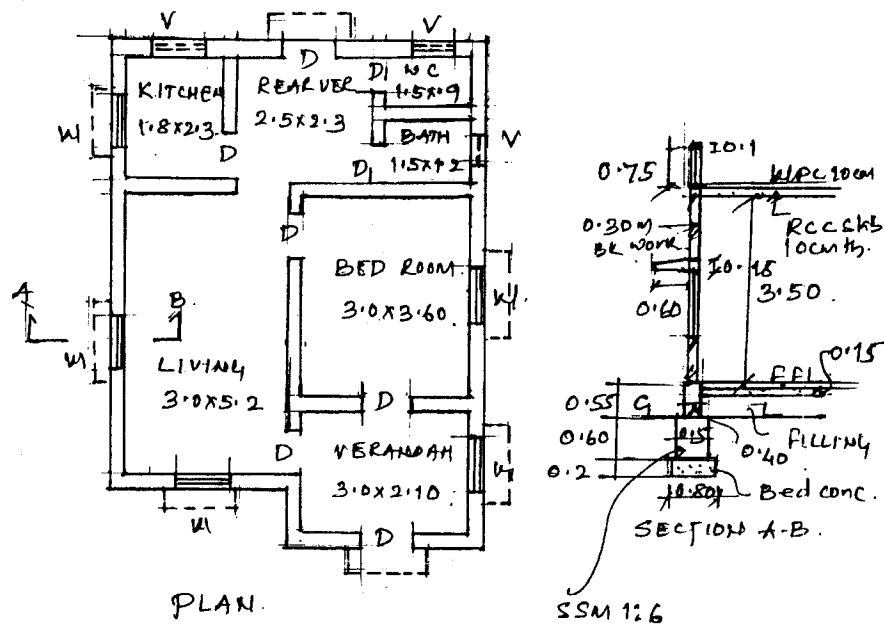

Fig.Q1

Schedule of Opening :
D = 0.90 m × 2.1 m   W = 1.0 × 1.2 m
D_1 = 0.75 m × 2.1 m   V = 0.9 × 0.60

2 Write the detailed technical specifications for any three of below mentioned items.
   i) Earthwork in excavation.
   ii) Ashlar stone masonry in cm 1:6
   iii) Marble flooring
   iv) Providing and laying AC sheet with necessary accessories.
   v) Vitrified tile flooring (15 Marks)

3 Estimate the quantity of earthwork for a portion of a road for 300 m length from the following data. Formation width 10 m, side slope in banking is 2:1, side slope in cutting is 1½ : 1 it.

Distance	0	30	60	90	120	150	180	210	240	270	300
R.L. of ground	101	100.9	100.5	100.7	100.8	100.6	100	99.8	99.2	99.1	98.5

The formation level at the 1st chainage is 102.0. The road is in downward gradient 1 in 150 upto 120 m. Afterward gradient changes to 1 in 100. **(15 Marks)**

4 Write short notes (any three):
i) Tender document and its content
ii) Measurement book
iii) Different type of estimates used in reality
iv) Administrative sanction and technical sanction
v) Earnest money deposit and security retention. **(15 Marks)**

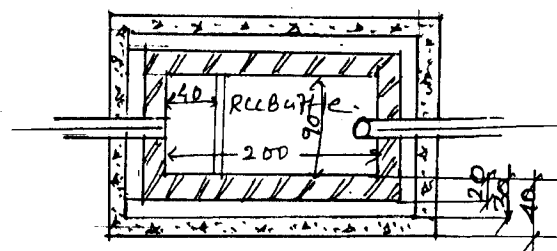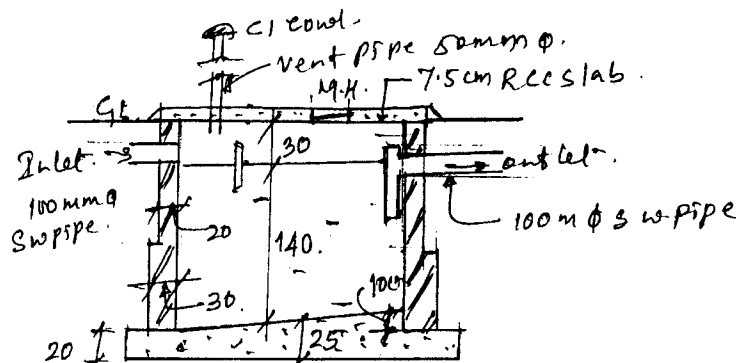**5** From 1st principles arrive @ the rate of any three of below mentioned items of work.
i) R.C.C. 1:2:4 for roof slab
ii) Brick work in cm 1:4
iii) Providing plastering with cm 1:6 of 20 mm thick
iv) R.C.C. work 1 : 1½ : 3 for beams. Columns with 2% steel. **(15 Marks)**

6 Fig.Q6 shows the details of septic tank. Prepare the estimate for following items of work.
i) Earthwork in excavation
ii) PCC 1 : 3 : 6 for bed concrete
iii) RCC slab OR
iv) BBM in cm 1 : 4 for walls. **(15 Marks)**

All dimensions
Are in cm

Fig.Q6

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