# Seventh Semester B.E. Degree Examination, June/July 2017

## Estimation and Valuation

Time: 3 hrs.                                                                                          Max. Marks:100

**Note: 1.** *Answer full question from PART-A.*
**2.** *Answer FOUR full questions, selecting at least*
*TWO questions from PART-B and PART-C.*

## PART – A

1    Prepare a detailed estimate for residential building shown in Fig.Q1 (i) and (ii) for following items of work. Prepare an abstract also. Adopt center line method.
i)   Earth work in excavation for foundation in hard soil at Rs.125/m³
ii)  C.C bed 1:4:8 for walls at Rs.2500/m³ and basement at Rs.2500/m³
iii) First class brick work in C.M. 1:4 in foundation and basement at Rs.4000/m³
iv) D.P.C. 2.5 cm thick with standard water proofing compound at Rs.4100/m²
v)  First class brick work in C.M in 1 : 6 in superstructure including parapet Rs.4000/m³.

**(40 Marks)**

## PART – B

2    Prepare a detailed estimate of a septic tank with a soak pit shown in Fig.Q2 for following items of work.                                                                                **(15 Marks)**
i)   Earth work in excavation                        ii) C.C. bed 1:3:6
iii) First class brickwork in C.M. 1:4            iv) 12 mm thick cement plastering of walls

3    Write detailed specification of any three of following:
i)   Reinforced cement concrete (R.C.C)      ii) Damp proof course 2.5 cm cc 1:1½:3
iii) First class brickwork                             iv) Plastering in C.M.                    **(15 Marks)**

4    a.   What is an estimate? What are the different data required to prepare an estimate? Explain.
**(07 Marks)**
b.   Enumerate various types of estimate. Explain any one in brief.              **(08 Marks)**

## PART – C

5    Carry out rate analysis for any three of following:
i)   Cement concrete 1:2:4 in foundation
ii)  Coursed rubble stone masonry in superstructure in 1:6 cement mortar
iii) 12 mm thick plastering in C.M. 1:6
iv) 2.5 cm thick cement concrete 1:1½:3. Damp proof course (DPC).          **(15 Marks)**

6    Prepare a detailed estimate for earth work for portion of a road from following data:

| Chainage in metres | 0 | 100 | 200 | 300 | 400 | 500 |
|---|---|---|---|---|---|---|
| R.L. of ground | 114.50 | 114.75 | 115.25 | 115.20 | 116.10 | 116.85 |
| R.L. of formation in m | ←115 upward gradient upto 600 as 1 in 200 | | | | | |

| 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 |
|---|---|---|---|---|---|---|
| 118.00 | 118.25 | 118.10 | 117.80 | 117.75 | 117.90 | 119.50 |
| ←Downward gradient 1 in 400 → | | | | | | |

Formation width of road is 10 m. side slope 2:1 in banking and 1½:1 in cutting. The cost of filling is Rs.220/m³ and cutting is Rs.150/m³.                                        **(15 Marks)**

7  a.  Explain any two of following:
i)   Normal Muster Roll (NMR)
ii)  Measurement Book  (MB)
iii) Earnest Money Deposit (EMD)  (05 Marks)
b.  What is valuation? What are the various purposes of valuation?  (05 Marks)
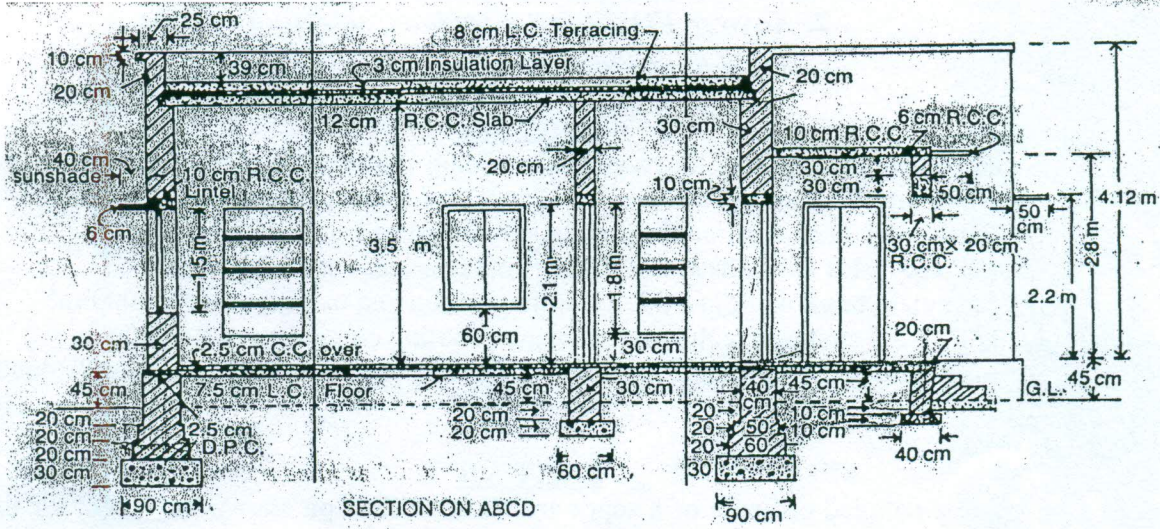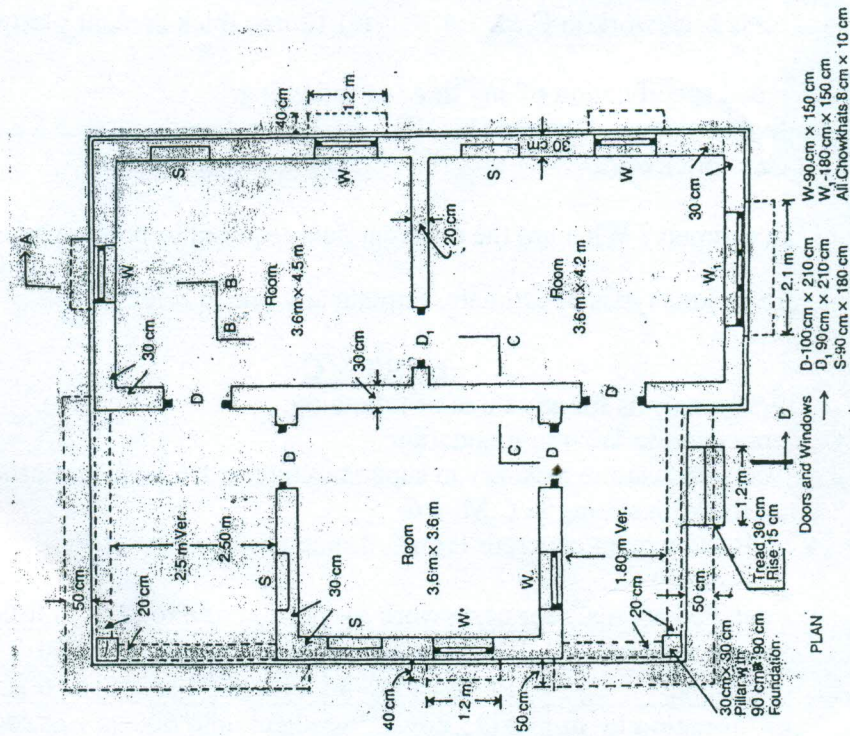c.  Explain sinking fund method of valuation.  (05 Marks)



Fig.Q1(i)



Fig.Q1(ii)