Seventh Semester B.E. Degree Examination, Jan./Feb. 2021

## Estimation and Valuation

Time: 3 hrs.


Max. Marks:100

Note: 1. Answer full question from PART-A.
2. Answer FOUR questions selecting at least TWO full questions each from Part B and C.
3. Assume missing data suitably, if any.

## PART - A

1 Prepare a detailed estimate for a residential building shown in Fig.Q1(i) and Fig.Q1(ii) for the following items of work. Prepare abstract also:
(i) Earth work in excavation for foundation in hard soil at Rs. $210 / \mathrm{m}^{3}$
(ii) C.C. bed 1:4:8 in foundation at Rs. $4250 / \mathrm{m}^{3}$
(iii) SSM with CM 1:4 in foundation and basement at Rs. $4500 / \mathrm{m}^{3}$
(iv) C.C. Plinth 1:2:4 at Rs. $4800 / \mathrm{m}^{3}$
(v) BBM walls with C.M. 1:6 for super structure at Rs. $4000 / \mathrm{m}^{3}$.
(40 Marks)

## PART - B

2 Prepare a detailed estimate of septic tank with soak pit shown in Fig.Q2 for following items of work.
(i) Earth work in excavation.
(ii) I class Brick Work
(iii) 12 mm thick cement plastering of walls.
(15 Marks)
3 a. List different types of estimate. Explain any two.
(08 Marks)
b. Explain different types of contracts briefly.

4 Write detailed technical specifications for any three of the following:
(i) C.C. in foundation 1:4:8
(ii) R.C.C. (1:2:4) in roof slab
(iii) D.P.C. 2.5 cm thick $\left(1: 1 \frac{1}{2}: 3\right)$
(iv) Mosiac flooring
(15 Marks)
PART - C
5 Carry out rate analysis for three of the following from first principle;
(i) C.C. 1:5:8 for bed in foundation
(ii) Random rubble stone masonry
(iii) BBM in super structure with 1:6 C.M
(iv) Plastering 12 mm thick in C.M. 1:6
(15 Marks)
Estimate the cost of earth work for portion of road from following data by mean sectional area method. Road width $=8 \mathrm{~m}$, side slope $2: 1$ in banking and $1 \frac{1}{2}: 1$ in cutting, length of chain 30 m .

| Chainage | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ground level | 71.2 | 71.25 | 70.9 | 71.25 | 70.8 | 70.45 | 70.2 | 70.35 | 69.10 | 69.45 | 69.70 |
| Formation level | 70 | $\longleftarrow$ upward gradient 1 in $200 \longrightarrow$ |  |  |  |  |  |  |  |  |  |
| 1 of $3 \quad$ ( 15 Marks) |  |  |  |  |  |  |  |  |  |  |  |

7 Write short notes on any three:
(i) Administrative approval
(ii) EMD
(iii) Measurement book
(iv) Schedule of rates
(v) Valuation and different methods of valuation


Fig.Q1(i)


Fig.Q1(ii)


Fig.Q2

