

B.E. Sixth Semester (Civil Engineering) (CGS)
10206 : Estimating & Costing : Paper 6 CE 06

P. Pages : 3

Time : Fours Hours



AU - 2739

Max. Marks : 80

- Notes :
1. All question carry equal marks.
 2. Answer **three** question from Section A and **three** question from Section B.
 3. Due credit will be given to neatness and adequate dimensions.
 4. Assume suitable data wherever necessary.
 5. Illustrate your answer necessary with the help of neat sketches.
 6. Use of pen Blue/Black ink/refill only for writing the answer book.

SECTION - A

1. a) Derive revised estimate and mention the circumstances of preparation of estimate. 5
b) Explain the purpose of approximate estimate. 4
c) State and explain the types of specification. 4

OR

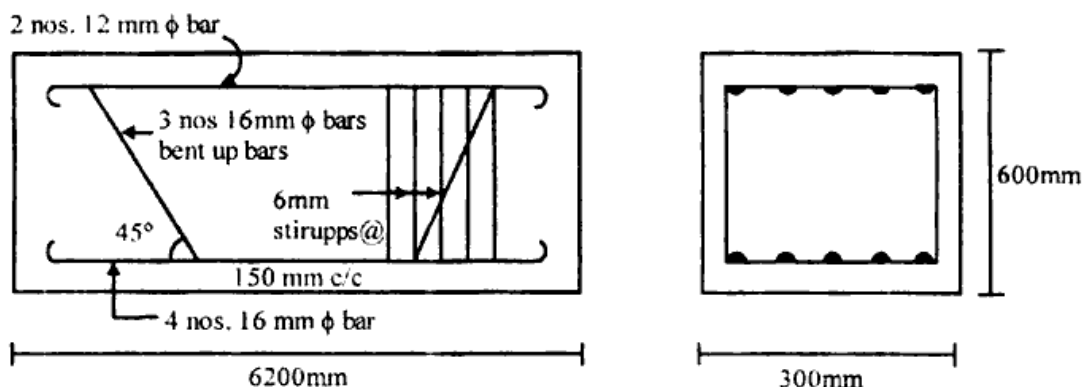
2. a) Write general specification of a first class building. 4
b) Write detailed specification of B. B. M. in C. M. 1:4. 6
c) State the units of measurement based on IS 1200, for following items:- 3
 - i) Excavation
 - ii) Half Brick thick masonry.
 - iii) M. S. Bar Reinforcement.
3. a) What is a nominal muster roll? Explain briefly different post of MMR. 5
b) Define briefly overhead cost. 4
c) Distinguish between prime cost and provisional sum. 4

OR

4. a) Prepare the state analysis for following items. 6
 - i) Half briefly wall 10cm thick portion
 - ii) Cement concrete 1:2:4 for 10m³.

b) What is meant by schedule of bass. Explain it's importance in the estimating & costing.

5. An R. C. C. beam 300 x 600 mm and length 6200mm is reinforced with 4Nos. 16mm ϕ bar placed in one row @ bottom. Three main bars are bent-up Two 12mm ϕ bars are provided at top, 6mm ϕ bars stirrups are provided at 150mm dc. The clear cover to the beam is 30mm. Find out the total quantity of steel bars. Prepare bar bending schedule.



OR

6. Prepare a detailed estimate of a single room 5m x 5m upto plinth level. The relevant details are as given below:

- Width of foundation 1.2m and depth 1m.
 - UCR Masonry with c.m. (1:6) in two steps having depth 0.5m and 0.3m and width 0.9 and 0.6m respectively.
 - Remaining depth is of P.C.C. Bed (1:3:6)
 - Plinth height of 0.6m and width of 0.4m with UCR Masonry (1:6) c.m.
 - DPC 2.5cm thick (1: 2: 4)
 - Plinth filling in 3 layers and cement concrete flooring of 8cm thick of 1: 2: 4.
- Prepare an Abstract of cost as per CSR.

SECTION - B

7. R. L. of ground along the centreline of a proposed road from chainage 10 to chainage 20 are given below. The formation level at the 10th chainage is 107 and the road is in downward gradient of 1 in 150 up to the chainage 14 and then the gradient changes to 1 in 100 downward. Formation width of road is 10m and side slopes of banking are 2:1 (H : V) Length of the chain is 30m. Draw longitudinal section of the road and a typical cls and prepare an estimate of earthwork at the rate of Rs.275% Cu. m.

Also find the Area of the side slopes and the cost of tamping the side slopes at the rate of Rs.60% sq.m.

Chainage	10	11	12	13	14	15	16	17	18	19	20
R. L. of ground	105.0	105.6	105.44	105.9	105.42	104.3	105.0	104.1	104.62	104.0	103.30

OR

8. A road is to be constructed partly in cutting and partly in banking. The formation width of road is 9m. cross slope of ground is 6:1, side slop in banking 2:1 and in cutting 1:1 depth of cutting at centre is 50cm. Calculate the quantity of earth work in cutting and banking for a length of 100m. Also estimate the cost of making the formation of road if the rate of earthwork is 800/- per Cu.m.

9. a) What are the different methods of valuations? 2
- b) Name the methods of depreciation and explain any two. 8
- c) Differentiate between book value and market value. 3

OR

10. a) Define the following. 8
- i) Market value.
- ii) Sentimental value
- iii) Scrap value
- iv) Salvage value
- b) A property fetches a net annual income of Rs.2,00,000/- after deducting all outgoings. workout the capitalized value of the property if the rate of interest is 9.25 per annum. 5
11. a) What are various types of contracts? Explain in details. 5
- b) What is "breach of contracts"? Explain in details. 5
- c) Explain the role of Govt. department as a construction agency. 3

OR

12. a) Prepare a suitable tender notice to invite tender for the construction of civil Engineering Department building for Engineering college costing Rs.1,00,00,000/- 8
- b) Explain the legal aspects of various contract provision. 5
