CE 704
B.E. VII Semester
Examination, December 20 l 4
Quantity Surveying And Costing
Time : Three Hours
Maximum Marks : 70

Note: Attempt any five questions. Internal choice is given with each question. Assume data suitably if any is found missing or misprint.

1. a) Explain the following types of estimates.   7
i)   Plinth area rate estimate
ii)   Revised estimate
iii)   Cubical content rate estimate
b) Discuss the importance and various purposes of estimate. 7

OR

a) Prepare a preliminary estimate of a three storied office building having a carpet area o 1 2000 sqm with following data. It may he assumed that 30% of the built up area will be taken up by the corridors, verandahs, lavatories, staircase etc. and I Duo of the built up area will be occupied by walls.

i) Plinth area rate - Rs. 10000.00 per m
ii) extra due to deep foundation at site = 1. 1% of building cost
iii) Extra for special Architectural treatment - 0.5% of Building cost
iv) Extra for sanitary and water supply installation - 6% of Building cost
v) Extra for Electrical installation = 12.5% of building cost
vi) Contingencies = 21/2%
vii) Supervision charges 8%   8

b) Explain the following: 6
i)   Plinth area
ii)   Carpet area
iii) Built up area

3 a) Explain in detail about CSR.   6
 b) Prepare the rate analysis for 12 mm cement plastering 1:6 unit 1 sqm.   8

OR

4. a) Explain how the various factors affect the rate of an item.   6
   b) Prepare the rate analysis for half brickwork wall (10 cm thick) with 1:3 cement mortar-unit 1 sqm.   8
5. a) Explain the following:
   i)   Schedule of bars
   ii) Calculation of length of bent up and hooked bars. 6
b) Explain the Long wall-Short Wall method and centre line method in detail.   8
 OR
6. Estimate the quantity of earth work required in a road embankment having 1 Om formation width, 2:1 side slope in a length of 7 chains, each chain being 30 m long. The central difference of formation and ground is 0.70 m, 1.20 m, 2.00m, 1.00 m, 1.50 m, 2.10 m, 1.80 m and 1.50 m at 0 to 7th chain respectively. Assume the ground is level in direction transverse to the centre line.   14

7. a) What is DPR? Discuss the content of DPR in detail.   8
   b) Define the following   6
   i) Overhead charges
   ii) Contingencies
   iii) Work charge establishments

<div align="center">OR</div>

8. a) Discuss in detail how the cost of work can be minimized to a certain limit. 7
   b) What percentages are recommended for different services in building? 7

9 Define the following
   i) Sinking fund
   ii) Scrap value
   iii) Gross income and net income
   iv) Annuity
   b) What are the various methods of valuation Explain any one in detail.   6
   OR

10. a) Explain the following
        i) Purposes of Valuation
        ii) Depreciation. 6
   b) In a plot of land costing Rs. 8,00,000.00 a building has been newly constructed at total
   cost of Rs. 20,00.000.00 including sanitary and water supply works, electrical
   installations etc. The building consists of lour flats for tour tenants. The Owen expects
   8% return on We cost of construction and 50 return on the cost of land. Calculate
   the standard rent for each flat o Idle building assuming -
   i) The life of building as 60 years and sinking fund will be created on 4% interest basis.
   ii) Annual repair cost at of the cost of construction.
   iii) Other outgoings including taxes at 30°0 the net return on the building.   8