Question Bank (I-Scheme)

Name of Course: Estimating and Costing **Subject code: 22503**
Semester: V **Programme: Civil**

Unit test I

Unit 1- Fundamentals of Estimating (12 Marks)

2 marks question

1. State the meaning of the term estimating and costing.
2. Define costing and state its purpose.
3. State any four purposes of estimating and costing.
4. Describe in brief DSR.
5. Define Administrative approval and Technical Sanction.

4 marks question

1. Enlist different types of estimate with sub-types.
2. Draw the standard formats of measurement sheet, abstract sheet and face sheet.
3. State the local rate of following materials: a) Murum b) Cement c) Rubble d) Traditional Bricks

Unit 2 - Approximate Estimate (6 Marks)

2 marks question

1. State rules of deduction for openings as per IS 1200 for plastering.
2. State the mode of measurements for following items of work.
   Collapsible gate (steel), Brickwork (10 cm thick), Dado Flooring, Concrete, Basin, Plastering
3. What is revised and supplementary estimate?
4. Describe 'typical bay' method for approximate estimate.
5. State the units of measurement for following item of work: a) Flooring b) Concrete c) Basin d) Plastering

4 marks question

1. Prepare an estimate for two span bridge of 40 m each, the cost of existing bridge is Rs. 50,000/- per meter.
2. State standard mode of measurement for following items.

1. DPC 2. Wood work for door frame. 3. Skirting 4. Ornamental cornice
5. Honeycombed brickwork 6. Form work

3. Describe in brief procedure for preparing approximate estimate of irrigation project and highway project.

4. Prepare approximate estimate for high school building from following data.

i. Proposed plinth area = 2500 sqm. ii. Plinth area rate = 4000/sqm.
iii. Water supply charges = 3% of cost of building.
iv. Electric installation charges = 10% of cost of building.
v. Contingencies = 3% of overall cost of building.
Approximate estimate of school building.

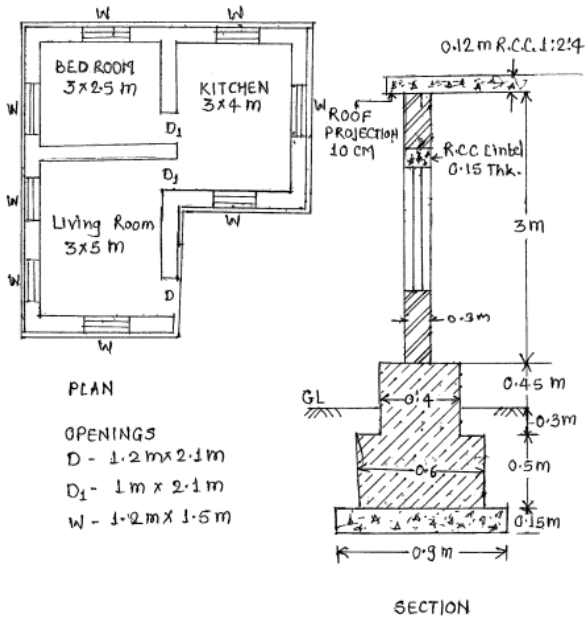
Unit 3 - Detailed Estimate (28 Marks)

2 marks question

1. State data required for detailed estimate.
2. What are contingencies and work charged establishment?
3. Explain the long wall & short wall method for taking out quantities.
4. What is bar bending schedule? State any two advantages of preparing bar bending Schedule.

4 marks question

1. Draw Bar Bending Schedule. State formula to determine the weight of steel in Kg/M and also calculate weight in Kg/M of 10 mm, 16mm diameter bars.
2. Workout quantity for 6mm, l0mm and l6mm reinforcement for a rectangular beam of size 230 x 500 mm. The beam is reinforced with 2 No's - 10 mm ϕ at top, 2 No's 16 mm ϕ at Bottom, 2No's- 16mm ϕ bent up, 6 mm Q two legged stirrups are provided at 150mmc/c throughout the length. Length of beam is 4.5 m.
3. Calculate the quantities of reinforcement for the following and prepare a bar bending schedule. Member Overall size Details of Reinforcement Beam 4000 mmlength(230 mm ×400 mm section) Bottom Reinforcement16 mm ϕ - 5 Nos. –(3 straight and 2bent up) Top Reinforcement12 mm ϕ – 3 Nos. Stirrups – 6 mm ϕ@ 150 mmc/c
4. A R.C.C. Lintel size 250 × 150 mm & clear span of 1.5 m is reinforced with 4 bars of 10 mm f @ bottom & 3 bars of 8 mm f @ top. The stirrups of 6 mm fare provided 150 mm c/c. Bearing of lintel is 150 mm. Calculate the total quantity of steel reinforcement.
5. Work out quantities of following any three items from Fig.
   a) Earthwork in excavation
   b) U.C.R. masonry in C.M. 1 : 6 in foundation and plinth.
   c) Brickwork in C.M. 1 : 5 in superstructure, Thk. – 30 cm
   d) R.C.C. work in roof slab (M20 concrete)



6. Work out quantities of following any three items from Fig.

i) Earthwork in excavation

ii) U.C.R. masonry in C.M. 1 : 6 in foundation and plinth.

i) Brickwork in C.M. 1 : 5 in superstructure, Thk. – 30 cm

ii) R.C.C. work in roof slab (M20 concrete)