

Code No: 07A60105

**R07****Set No. 2**

**III B.Tech II Semester Examinations, December 2010**  
**ESTIMATING AND COSTING**  
**Civil Engineering**

**Time: 3 hours****Max Marks: 80**

**Answer any FIVE Questions**  
**All Questions carry equal marks**

\*\*\*\*\*

1. (a) Define reinforcement? List and explain various types of reinforcement?  
 (b) What do you mean by development of length of reinforcement? [8+8]
2. (a) Explain principle units for various items of work.  
 (b) List out limits of measurement and degrees of accuracy in estimating. [8+8]
3. Explain the following method of valuation of a building along with an example.  
 (a) Valuation based on profit  
 (b) Depreciation method of valuation. [16]
4. The formation width of a road embankment is 9.0m. The side slopes are 2.5:1. The depths along the center line of road at 50.0m intervals are 1.2, 1.1, 1.4, 1.2, 0.9, 1.5 and 1.0m. It is required to calculate the quantity of earthwork by  
 (a) Prismoidal rule.  
 (b) Trapezoidal rule. [16]
5. List and explain general specifications of a first class building. [16]
6. Write a short note on the following with respect to contract document.  
 (a) Security deposit.  
 (b) Retention money. [16]
7. Prepare a preliminary estimate for a framed four storied office building having a carpet area of 250 sq m for each floor. Assume areas occupied by corridor, verandah, lavatories, staircase etc as 25% of built up area and that occupied by walls and columns as 8.5% of the same. The following details may be used for estimation  
 (a) Built-up area rate for ground floor (excluding foundation) = Rs1,500/- per sq m  
 (b) Built-up area rate for 1st and 2nd floor = Rs1,650/- per sq m  
 (c) Built-up area rate for 3rd floor = Rs1,800/- per sq m  
 (d) Extra for foundation = 20% of superstructure cost  
 (e) Extra for special architectural treatment = 1% of building cost

Code No: 07A60105

**R07**

**Set No. 2**

- (f) Extra for water supply and sanitary = 7
  - (g) Extra for electrical installation = 8% of building cost
  - (h) Extra for contingencies = 4% of overall cost
  - (i) Extra for work charge establishment = 10
  - (j) Extra for other source = 5% of building cost. [16]
8. Describe the procedure for the calculation of rate per unit cu.m of cement concrete 1:2:4 with stone ballast 40 mm. [16]

\*\*\*\*\*

FIRSTRANKER

Code No: 07A60105

**R07****Set No. 4**

**III B.Tech II Semester Examinations, December 2010**  
**ESTIMATING AND COSTING**  
**Civil Engineering**

**Time: 3 hours****Max Marks: 80**

**Answer any FIVE Questions**  
**All Questions carry equal marks**

\*\*\*\*\*

1. Give the detailed specifications of the following items of works.
  - (a) Colour washing
  - (b) Lime concrete in foundation. [8+8]
2. (a) What do you mean by lap length, explain with suitable sketches.  
 (b) What are the cover rules to be followed in RCC. [8+8]
3. List and explain any eight general items of work involved in the estimation for a building along with the process of calculations. [16]
4. A colonizer intends to purchase a land of 100,000 sq m area located in the suburb of a big city to develop it into plots of 700 sq.m each after providing necessary roads and parks and other amenities. The current sale price of small plots in the Neighbourhood is Rs.25.00 per sq.m. The colonizer wants a net profit of 25%. Work out the maximum price of the land at which the colonizer may purchase the land. [16]
5. Describe the procedure for the calculation of rate per unit sq.m of the following items
  - (a) White washing three coats.
  - (b) White washing two coats. [8+8]
6. Write a short note on the following:
  - (a) Informal tender.
  - (b) Sale of tender papers.
  - (c) Unbalanced tender. [16]
7. Estimate the cost of earthwork for laying of road for 400m length from the following data. Formation width of the road is 10meter. Side slopes are 2:1 in banking 1:1 in cutting.

Code No: 07A60105

**R07****Set No. 4**

Station	Distance in meter	RL of ground	RL of formation
25	1000	51.00	55
26	1040	50.00	Downward gradient of 1 in 250
27	1080	50.50	
28	1120	50.80	
29	1160	50.60	
30	1200	50.70	
31	1240	51.20	
32	1280	51.40	
33	1320	51.30	
34	1360	51.00	
35	1400	50.60	

8. Explain the following

- (a) Market rate.
- (b) Work-charged establishment.
- (c) Lump-sum.

[16]

\*\*\*\*\*

Code No: 07A60105

**R07****Set No. 1****III B.Tech II Semester Examinations, December 2010****ESTIMATING AND COSTING****Civil Engineering****Time: 3 hours****Max Marks: 80**

**Answer any FIVE Questions**  
**All Questions carry equal marks**

\*\*\*\*\*

1. "An estimate is never the actual cost of work" justify your answer with a suitable example. [16]
2. Enumerate different methods for estimating building works along with a suitable example. [16]
3. The formation width of a road embankment is 10.0m. The side slopes are 2:1. The depths along the center line of road at 50.0m intervals are 1.2, 1.1, 1.4, 1.2, 0.9, 1.5 and 1.0m. It is required to calculate the quantity of earthwork by
  - (a) Prismoidal rule.
  - (b) Trapezoidal rule. [16]
4. (a) Differentiate between Security deposit and Retention money.  
 (b) Elaborate earnest money along with its necessary. [8+8]
5. A building is situated by the side of a main road of Hyderabad city on a land of 600 sq.m. The built up portion is 22m × 17m. The building is first class type and provided with water supply, sanitary and electric fittings, and the age of the building is 30 years. Work out the valuation of the property. Assume plinth area rate is Rs.200.00 and cost of land as Rs.6000 per sq.m. [16]
6. Draw reinforcement details along with curtailment lengths in the following slabs.
  - (a) Simply supported.
  - (b) Continuous over several spans. [8+8]
7. Give the detailed specifications of the following items of works.
  - (a) Cast iron water pipes
  - (b) Mangalore tiled roof. [8+8]
8. Describe the procedure for the calculation of rate per unit cu.m of RCC work in beams, slabs etc., 1:2:4 work excluding steel but including centering, shuttering, bending and binding. [16]

\*\*\*\*\*

Code No: 07A60105

**R07****Set No. 3**

**III B.Tech II Semester Examinations, December 2010**  
**ESTIMATING AND COSTING**  
**Civil Engineering**

**Time: 3 hours****Max Marks: 80**

**Answer any FIVE Questions**  
**All Questions carry equal marks**

\*\*\*\*\*

1. (a) What do you mean by development length of reinforcement?  
(b) Differentiate between development length in tension and compression. [8+8]
2. Give the detailed specifications of the following items of works.  
(a) Earthwork in excavation in foundation  
(b) Random rubble stone masonry. [8+8]
3. Explain the following method of valuation of a building along with an example.  
(a) Rental method of valuation  
(b) Direct comparison with the capital value. [16]
4. Explain the following general items of work involved in the estimation for a building and its process calculation.  
(a) Earthwork excavation for foundation trenches  
(b) Earthwork in filling  
(c) Cement or lime concrete in foundation  
(d) Damp proof course. [16]
5. Write a short note on the following:  
(a) Time limits for tender notice  
(b) Sale of tender papers.  
(c) Global tender. [16]
6. Write down unit of measurement, unit rate of payment and mode of measurement for the following general items of work.  
(a) Rain-water, Vent, Waste pipes etc.  
(b) Ventilating cowls.  
(c) Surface drains.  
(d) Sanitary fittings.  
(e) Glass-panes.  
(f) Broken glass coping.

Code No: 07A60105

**R07**

**Set No. 3**

(g) Door handles. [16]

7. Describe the procedure for the calculation of rate per unit cu.m of Random Rubble stone masonry in foundation and plinth. [16]

8. Calculate the quantity of each work for 200m length for a portion of a road in an uniform ground the heights of bank at the two ends being 1.00m and 1.60m. The formation width is 1.0 m and side slopes 2:1 (H:V). Assume that there is no transverse slope. Use the following methods and justify which method is good.

(a) Prismoidal formula and

(b) Mean - sectional area method. [16]

\*\*\*\*\*

FIRSTRANKER