

Code No: 137CN

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B: Tech IV Year I Semester Examinations, October/November - 2020

ESTIMATION, QUANTITY SURVEYING AND VALUATION

(Civil Engineering)

Time: 2 Hours

Max. Marks: 75

**Answer any Five Questions
All Questions Carry Equal Marks**

- 1.a) Discuss centerline and long wall- short wall method of preparing detailed estimate.
b) Prepare a list for general items of estimate according to the progress of construction work. [7+8]
2. 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. [15]
3. Explain the Mid Sectional Area method and Mean Sectional Area method for calculating quantity of earth work in road estimation. [15]
4. The width of road embankment is 10m. The side slopes are 2:1. The depth along the centre line road at 50m intervals are 1.25, 1.10, 1.50, 1.20, 1.0, 1.10, 1.15m. Calculate the Quantity of earth work by
a) Mid sectional rule b) Trapezoidal rule c) Prismoidal rule. [15]
- 5.a) Explain Analysis of Rates and factors affecting rate of an item of work. Give different heads used in Analysis of Rates.
b) Describe the procedure for the calculation of rate per unit cum of cement concrete 1:2:4 with stone ballast 40 mm. [7+8]
6. Prepare the lead statement for the following materials [15]

| S.No | Material | Rate at source | Lead in Km | | | Conveyance charges per Km |
|------|----------------|-----------------|------------|----|----|---------------------------|
| | | | M | CT | ST | |
| 1 | 40mm HBG metal | Rs. 1200 / cu.m | - | 8 | 9 | Rs. 50 per cu.m |
| 2 | River sand | Rs. 1500 / cu.m | 6 | 8 | 12 | Rs. 35 per cu.m |
| 3 | Cement | Rs. 275 / bag | 5 | - | 7 | Rs. 5 per bag |

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- 7.a) Explain the different types of contract systems adopted for construction industry.
b) What is a contract document? Describe its important clauses.

[7+8]

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- 8.a) What is depreciation? What are the methods of determining the depreciation?

b) 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. Workout the valuation of the property. Assume plinth area rate as Rs.200.00 per sq.m. and cost of land as Rs.6000 per sq.m.

[7+8]

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