MANIPAL INSTITUTE OF TECHNOLOGY
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MANIPAL INSTITUTE OF TECHNOLOGY

SIXTH SEMESTER B.TECH (CIVIL ENGINEERING)

END SEMESTER EXAMINATION, MAY 2024

ESTIMATION, COSTING AND VALUATION PRACTICE (CIE 3252)

(04 – 05 - 2024)

TIME: 3 HRS.   **MAX. MARKS: 50**

Note: 1. Answer all questions.
2. Any missing data may be suitably assumed.

Q. NO	QUESTION	MARKS	CO	BL
1A	The accompanying sketch (Fig. 1.) shows the plan of a building and a section through the walls. Calculate the quantity of earthwork excavation in main wall using long and short wall method.	4	1	3
1B	Calculate the quantities of earthwork in making a proposed road from the chainage 11 to 18 using the prismoidal formula. The RL of ground points at each chainage is as given in the table shown below. The proposed road is having RL 81.00m at the station 13 and a uniform upward gradient 50:1 from station 11 to 18. Formation width of the proposed road is 10m and side slopes in cutting 1:1 and in banking 2:1. Stations/Chainage(30m): 11, 12, 13, 14, 15, 16, 17, 18 RL of ground: 80.0, 82.8, 84.1, 83.5, 81.4, 80.6, 79.9, 81.0	4	1	3
1C	Explain work charged establishment and technical sanction	2	1	2
2A	The accompanying sketch (Fig. 2.) shows the reinforcement details for a RCC slab 150 mm thick resting on walls of a two room building. Wall thickness is 0.3 m thick. Prepare a bar bending schedule for straight bar in entire slab reinforcement. Cover for reinforcement is 30 mm. use TMT steel for the reinforcement.	5	1	3
2B	The accompanying sketch (Fig. 1.) shows the plan of a residential building and a section through the walls. Calculate the quantities of external plastering.	3	1	3
2C	Discuss the influence of location of a building in its valuation?	2	5	2
3A	Calculate unit rate for the Coursed Rubble stone Masonry in CM (1:6) in Superstructure	4	4	3

The table referenced in 1B:

Stations/Chainage(30m)	11	12	13	14	15	16	17	18
RL of ground	80.0	82.8	84.1	83.5	81.4	80.6	79.9	81.0

3B	An equipment was purchased at Rs. 80,000/-. Assuming salvage value to be Rs. 10,000/-, after 6 years. Calculate the depreciation for each year adopting a) Straight line method, b) SOY method.	4	4	3
3C	List the different methods of Valuation. Briefly explain Rental method of valuation.	2	5	1
4A	An owner has decided to sell his vacant property with a 18 year old single storied building having a total plinth area of 100 sq. m. The market value of the land is Rs. 10,00,000/- as compared with the adjoining areas. There is no comparable instance of letting value available in the locality but the present plinth area rate to construct such a new building has been determined from current sale price which is Rs. 10,000 per sq m. Calculate the sale price of the property having a total life of 70 years and when the rate of annual sinking fund interest is 6%.	5	5	3
4B	The gross rent accruing to a property is Rs. 30,000/ p. m. Allowing 10% as deductions for repair, maintenance and management of the property. Calculate the rental value of the property @ i = 9%. Assume the rent to be realized for a very long period.	3	5	3
4C	With the neat sketch explain belting method of valuation for open land.	2	5	2
5A	Explain in detail the essentials of Contract.	5	6	2
5B	Explain the terms (1)Liquidated Damage, (2) Completion Certificate, (3) Unbalanced Tender,	3	6	2
5C	Explain the term Informal tender.	2	6	2

PLAN

ALL THE DIMENSIONS ARE IN METER

SCHEDULE OF OPENING
D	1X2.1 M
D1	1.2X2.1 M
V	0.9X0.6 M
W1	1.5X1.4 M
W2	1.2X1.4 M
O & O1 ARE OPENING	

Fig.1

SECTION THROUGH MAIN WALL

0.15M TH R.C.C SLAB
0.30M TH R.C.C LINTEL
0.30M TH BRICK WALL
D.P.C (1:3:6)
SSM
C.C BED (1:5:10)

2

Fig.2

Cover = 30 mm
Bar Bend = 45

12 mm @ 120 mm C/C

Room-A
3.6 x 3m

Room-B
4m x 3m

1.2 m

0.75m

0.9m

1.0m

0.75m

1.0m

0.6m

0.3 m thick wall

10 mm @ 150 mm c/c

10 mm @ 150 mm c/c