



MANIPAL INSTITUTE OF TECHNOLOGY  
(Constituent College of Manipal University))  
Manipal – 576 104.



Reg. No: 

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SECOND SEMESTER M.TECH (CONSTRUCTION ENGINEERING & MANAGEMENT)  
END SEMESTER EXAMINATION, MAY – 2016

ELECTIVE-I  
VALUATION TECHNIQUES IN ENGINEERING (CIE – 562)  
(Revised Credit System)

05-05-2016

TIME: 3 HRS.]

[MAX. MARKS: 50

Note: 1. Answer **any FIVE FULL** questions.

2. Any missing data may be suitably assumed & clearly be indicated.

- 1.a) Explain reversionary land value in detail. (02)
- 1.b) Explain in detail any six factors affecting the intrinsic value of Agricultural/Farm lands (03)
- 1.c) An earthmoving machine costs of Rs. 8,00,000 and has an expected life of 20 years. The scrap value may be estimated at 10% of cost. Determine the annual depreciation and book value for each year up to first 5 years using. (i) Sinking Fund method at 4% (ii) double declining balancing method (05)
- 2.a) Explain Physical obsolescence, Functional obsolescence and Economic obsolescence with examples. (03)
- 2.b) A leasehold apartment has been purchased by a person with 30 years lease term for Rs.60 Lakhs. The person now wishes to let it out at a monthly rent. If the person is expecting a return of 8% on his capital and SF at 3%, then what net income should he expect from the lending? Also prove the same (03)
- 2.c) . Explain the methods of valuation by reference to Profits and Residual method. (04)
- 3.a) Explain standard rent in detail (02)
- 3.b) What is loading factor and how to fix the same ? (02)

- 3.c) Value the following property as of May 2016 using composite rate method
- Land extent- 60 ft x 40 ft
  - Plinth area constructed- 1400 sft
  - Year of construction- 2000 in Manipal
  - Composite rate of a property with nearly identical construction adjacent to this property =  $1500(\text{land}) + 1800(\text{building}) = \text{Rs } 3300/\text{sft}$
  - FSI allowed for the building to be valued = 1.50
  - FSI achieved by the building under comparison = 1.50
  - Useful life of the building under valuation = 65 Years (06)

4.a) Explain sales statistics method of valuation of farm lands (02)

4.b) What are the important factors to be considered by a valuer for valuing a hotel ?  
Write the steps involved in valuing a Hotel (03)

4.c) A property is partly owner occupied and partly rented out and is required to be valued. Prepare the valuation report, given the following data.

- R.C.C. framed building - Ground + 5 upper floors
- FSI = 1.00 is fully utilized for the plot area of 3000 sqm.
- Fourth floor with plinth area of 500 sqm is occupied by the owner.
- Land rate = Rs. 1000/sqm.
- Rent from tenanted portion = Rs. 90,000 per month.
- Municipal tax @ 45% of net rateable value
- Insurance premium = Rs. 5000 per annum
- Depreciation for the age of 5 years @ 4%
- Present cost of construction = Rs. 5000/sqm.
- Net rateable value = Rs. 2,00,000.
- PV of Re. 1/- per annum allowing interest on capital at 9% and for redemption of capital at 4% for 60 years.
- PV of Rs. 1 payable at the end of 60 years at 7%
- Repairs at 10% of gross rent.
- Rent collection and management charges at 5% of gross rent (Which includes everything) (05)

5.a) What is Wealth Tax? Write a note on assets chargeable and assets exempted under wealth tax act (03)

5.b) Explain Law of the land and Right of others in connection with Freehold properties (02)

5.c) A R.C.C. building has 5 floors of which three of them are rented on lease to a firm for an annual rent of Rs. 5,00,000/-. The plot area on which the building stands is 2700 sqm. The built up area of each floor is 540 sqm. The lease period is of 5 years and can further be extended for a term of another 5 years at the option of the lessee. The lease

period of 2 years has already expired. The net fair annual letting value of the owner occupied portion may be estimated at Rs. 2,50,000/-. The outgoings for the rented portion may be estimated at 20% of gross rent. Workout the value of the property. YP may be calculated at 10% on capital and 5% for redemption of capital for the first 3 years. For the owner occupied portion, capitalize in perpetuity with YP. (05)

6.a) Explain the different methods for extinguishment of easements (03)

6.b) List out the various licenses to be acquired to start a cinema (02)

6.c) A plot of land shown in Fig. (6.c) is situated along the main road. The rate of similar lands in that locality is Rs.500/m<sup>2</sup>. Value the property using belting method giving due consideration to the recessed portion. The local authority stipulates that at least 20m depth of the property shall be left free for proposed road widening purposes. Adopt three belts. (05)

