II SEMESTER M.TECH. (CONSTRUCTION ENGINEERING AND MANAGEMENT)

END SEMESTER EXAMINATIONS, APRIL/MAY 2019

PROGRAMME ELECTIVE III

SUBJECT: VALUATION TECHNIQUES IN ENGINEERING [CIE 5240]

REVISED CREDIT SYSTEM (04/05/2019)

Time: 3 Hours MAX. MARKS: 50

Instructions to Candidates:

- **❖** Answer **ALL** the questions.
- Missing data may be suitably assumed.

1A.	Define cost, price & value. Discuss	s the purpose of valuation	04	CO1
1B.	What is value depreciation? Write a note on the same		03	CO1
1C.	Explain the restriction on the powers of a freeholder. Briefly discuss the Rights & Liabilities of a Lessee		(01+02 =03)	CO2
2A.	Civil Super structure Rs. 4. Elevators Rs. 5. Pumps Rs. (ii) Land Value Rs, 1. (iii) SF@5%	5,00,000 5,00,000 25,000 0,00,000 (Years) onth rent % construction. hent charges at 5% of gross rent	05	CO2

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2B.	Plots with standard width of 18 at main residential locality of a city costs Rs. 20000 per sqm. If the depth of the plot is above 14m, cost increases by Rs. 5000 per sqm and if the depth is below12m, cost reduces by Rs. 4000 per sqm. It is observed that the cost of plots in other localities decreases by 2000 per sqm per Km distance of locality from main residential locality, but remains constant after 2Km. Value the properties P ₁ & P ₂ having following details. Property P ₁ i) Size 18m x 18m ii) 2 Km away from main residential locality iii) Good drainage with flat ground iv) Facing towards sea. Property P ₂ i) Size 18m x 11m ii) Plot faces secondary road of 6m width iii) 5 Km away from the main residential locality d) undulated ground requiring an average filling of 0.25 cubic meter per sqm of plot at Rs. 2500/ cum. E) Well connected by public transport.	05	CO3
3A.	A lessee has constructed a building worth Rs. 14 Lakhs on a leasehold land held by him on 99 years lease with a ground rent of Rs. 900 per month. The lease of 50 years is already over. The building has been let out on a net rent of Rs. 5000 per month for the first 21 years of unexpired period and thereafter for the remaining period the net rent will be Rs.9000 per month Lessor expects at least 9% return. Adopt 5% for redemption of capital. Work out the lessee's interest in the property.		CO3
3B.	A cinema is constructed on a lease hold plot on the main road of a town, the plot area being 5000 sqm. The annual ground rent is Rs.1 Lakh and the unexpired lease period is 18 years. If the gross receipt and the film hire during a particular year are Rs.95 Lakhs and Rs.45 Lakhs respectively, work out the value of the cinema from the following particulars. a) Miscellaneous income from morning shows, restaurants, Ads etc – Rs.50,000 per month. b) Municipal tax – Rs. 1,25,000/- per annum c) Insurance premium - Rs. 25,000/- per annum d) Estimated scrap value of the structure at the end of lease period – Rs.8,00,000/- e) Allow interest on capital at 12% and for redemption of capital @ 5 %. f) PV of Re 1/- at the end of 18 years @ 5% Working expenses may be assumed suitably.	05	CO3
4A.	A property is partly owner occupied and partly rented out and is required to be valued. Prepare the valuation report, given the following data. a) R.C.C. framed building - Ground + 5 upper floors with elevator and water pumps. b) FSI = 1.00 is fully utilized for the plot area of 6000 sqm. c) Second floor is occupied by the owner. d) Land rate = Rs. 4500/sqm. e) Rent from tenanted portion = Rs. 1, 40,000per month.	05	CO3

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	f) Municipal tax @ 45% of net rateable value g) Insurance premium = Rs. 5000 per annum h) Depreciation for the age of 5 years @ 4% i) Present cost of construction = Rs. 7000/sqm. j) Net rateable value = Rs. 9,00,000 k) PV of Re. 1/- per annum allowing interest on capital at 9% and for redemption of capital at 4% for 60 years. l) PV of Rs. 1 payable at the end of 60 years at 7% m) Repairs at 10% of gross rent. n) Rent collection and management charges at 5% of gross rent (which		
	includes everything) Plinth area of each floor is same		
4B.	A plot of land is situated along the main road of a city. The rate of similar lands in that locality is Rs10000/m². The plot has trapezoidal shape with frontage and rear width are parallel to the road. Frontage of the plot is 25m, rear width is 35m and the depth is 81.25m. Value the property using belting method giving due consideration to the recessed portion. The local authority stipulates that at least 10m depth of the property shall be utilized for proposed road widening purposes. Adopt three belts.		CO3
5A.	Name the methods of valuation of Agricultural Lands. Discuss the factors affecting the value of Agricultural/Farm Lands		CO4
5B.	What are "self-imposed" and "legally created" easements? Briefly write a note on creation of easements.		CO5
5C	What are the differences between Bonds and Debentures?	02	CO5

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