Register No.: ……………………………   Name: ……………………………………………………

SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)
(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)
THIRD SEMESTER M.TECH DEGREE EXAMINATION (Regular), FEBRUARY 2022
STRUCTURAL ENGINEERING AND CONSTRUCTION MANAGEMENT
(2020 Scheme)

Course Code :   20CESCT231

Course Name: Construction Economics and Finance

Max. Marks :   60   **Duration: 3 Hours**

PART A
(Answer all questions. Each question carries 3 marks)
1.   Show the relation between nominal interest rate and effective interest rate.
2.   Define geometric gradient
3.   Explain Rate of Return with neat sketch
4.   Explain investment property.
5.   Explain depreciation.
6.   Describe project finance.
7.   Define foreign currency management.
8.   Discuss the need of working capital management.

PART B
(Answer one full question from each module, each question carries 6 marks)

MODULE I

9.   a)   If you deposited INR 200 annually for 7 years with 6% annual effective interest. Calculate the future worth you saved?   (4)

b)   Define continues interest concept.   (2)

OR

10.   Explain cash flow diagram with sketch.   (6)

MODULE II

11.   A foreman is planning for his retired life. He has 10 more years of service. He would like to deposit 10% of his salary, which is INR 4000/-, at the end of the first year, and thereafter he wishes to deposit the amount with an annual increase of INR 500 for the next 9 years with 15% interest rate. Find the total amount at the end of the 10th year.   (6)

OR

12.   Demonstrate with neat sketch and show the solving procedure for geometric gradient method.   (6)

MODULE III

13. A construction company is planning to buy a fully automated paver block laying machine. If it is purchased under down payment, the cost of the machine is INR 16,00,000. If it is purchased under installment basis, the company has to pay 25% of the cost at the time of purchase and the remaining amount in 10 annual equal instalment of INR 2,00,000 each. Suggest the best alternative for the company using the present worth basis at i=18%, compounded annually.   (6)

OR

14. A Tile making company invest 20,00,000 for the plant and manufactured vitrified tile with variable cost for the raw material and production INR 100 and selling the tile with INR 200. Find (i) the break-even sales quantity (ii) the break-even sales (iii) if the actual production is 60,000 find the contribution and margin of safety.   (6)

MODULE IV

15. a) Illustrate with reasons for the need of equipment replacement.   (3)
    b) Evaluate the alternative to purchase a tower crane.   (3)

OR

16. a) Explain real estate   (3)
    b) Compare the condition to be consider and not consider for the replacement. of the equipment in use and new equipment.   (3)

MODULE V

17. Categorize with merits and demerits of the long term and short-term finance.   (6)

OR

18. Describe inflation and explain the causes to happen the same.   (6)

MODULE VI

19. Define mortgage finance and explain its types.   (6)

OR

20. Explain LIFO and FIFO in inventory valuation.   (6)

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