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

SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)

(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)

FIRST SEMESTER M.TECH DEGREE EXAMINATION (Regular), FEBRUARY 2022

(Structural Engineering and Construction Management)

(2021 Scheme)

Course Code : 21SC103

Course Name: Construction Planning and Management

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

PART A

(Answer all questions. Each question carries 3 marks)

1. Describe the significance of resources in preparing project schedule.
2. List out the major approaches to management theory.
3. Discuss the characteristics of good organization.
4. Describe the benefits of Management Information System.
5. An investor has an option to purchase a tract of land that will be worth Rs.10000 in six years. If the value of land increases at 8% each year, how much should the investor be willing to pay for this property.
6. Explain cash flow diagram.
7. Define Incremental cost.
8. Explain benefit cost ratio.

PART B

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

MODULE I

9. How you can calculate the earliest expected time and latest allowable occurrence time in PERT? Give an example and explain them. (6)

OR

10. Prepare work breakdown structure and develop a network for "Casting a Concrete beam over a verandah opening". The activities should include: Design of concrete mix, structural design, Installing mixer at the site, placing concrete, curing etc. The no. of activities should not exceed 15. (6)

MODULE II

11. Compare & Contrast the management theories put forward by Taylor & Fayol. (6)

OR

12. Discuss the concept of Weber's Ideal Bureaucracy. (6)

MODULE III

13. Define 'Line & Staff' organization. Comment on its advantages and disadvantages with suitable examples. (6)

OR

14. Explain the relevance of Maslow's Hierarchy of Needs in Employee management. (6)

MODULE IV

15. Illustrate the procedure for acquiring a system for 'Management Information System'. (6)

OR

16. Explain the relevance of Artificial Intelligent System in Management Information system (6)

MODULE V

17. Describe present worth, future worth and annual equivalent methods of evaluating alternatives (6)

OR

18. A company invests in one of the two mutually exclusive alternatives. The life of both alternatives is estimated to be 5 years with the following investments, annual returns and salvage values. (6)

Alternative	A	B
Investment(Rs.)	-1,50,000	-1,75,000
Annual Equal Return(Rs.)	60,000	70,0000
Salvage value(Rs.)	15,000	35,000

Determine the best alternative based on annual equivalent method by assuming i=25%.

MODULE VI

19. A company is trying to diversify its business in a new product line. The life of the project is 10 years with no salvage value at the end of its life. The initial outlay of the project is Rs. 20,00,000. The annual net profit is Rs.3,50,000. Find the rate of return for the new business. (6)

OR

20. Alpha associates has the following details: (6)
Fixed cost = Rs.20,00,000
Variable cost per unit = Rs.100
Selling price per unit = Rs.200
Find 1) The break-even sales quantity.
2) The break even sales.

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