

Register No.: Name:

SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)

(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)

FIFTH SEMESTER B.TECH DEGREE EXAMINATION (Regular), DECEMBER 2022 COMMON TO EC,EE (2020 SCHEME)

Course Code : 20HUT310

Course Name: Management for Engineers

Max. Marks : 100

Duration: 3 Hours

Use of statistical table is permitted

PART A

(Answer all questions. Each question carries 3 marks)

1. Differentiate the science and arts perspectives of management.
2. What is scientific management?
3. List any four objectives of planning.
4. Explain span of control in organization.
5. Distinguish between production and productivity.
6. Why decision making is difficult task?
7. Discuss the advantages of CPM and PERT.
8. Explain the concept of crashing and dummy activity in project management.
9. "Operations management is process of planning, organizing, and controlling the activities of a production function". Explain
10. What are intellectual property rights?

PART B

(Answer one full question from each module, each question carries 14 marks)

MODULE I

11. a) What are the challenges a global manager face in modern industry? Discuss. (7)
b) Discuss the advantage and limitation of system approach. (7)

OR

12. a) Explain the different levels of management with functions. (6)
b) Discuss the modern management theory and compare it with classical and neoclassical theories. (8)

MODULE II

13. a) Explain the importance of management in an organisation. (7)
b) Explain trait approach to leadership and contingency approach. (7)

OR

14. a) Comparison of different planning types. (6)
 b) Explain organizational structures. (8)

MODULE III

15. a) Explain productivity. Mention the types and factors influencing the productivity. (6)
 b) Business always operates in an environment of uncertainty'. Do you agree? Elaborate and give 3 reasons. (8)

OR

16. a) Explain the different models of decision-making behaviour. (4)
 b) Modern forest management uses controlled fires to reduce the fire hazards and to simulate new forest growth. Management has the option to postpone or plan a burning. In a specific forest tract, if burning is postponed, a general administrative cost of Rs. 300 is incurred. If a controlled burning is planned, there is a 50% chance that good weather will prevail and burning will cost Rs. 3200. The results of burning may be either successful with probability 0.6 or marginal with probability of 0.4. Successful execution will result in an estimated benefit of Rs. 6000, and marginal execution will provide only Rs. 3000 in benefits. If the weather is poor the burning will be cancelled incurring a cost of Rs 1200 and no benefit. Develop a decision tree for the problem and analyze the decision tree and determine the optimal course of action. (10)

MODULE IV

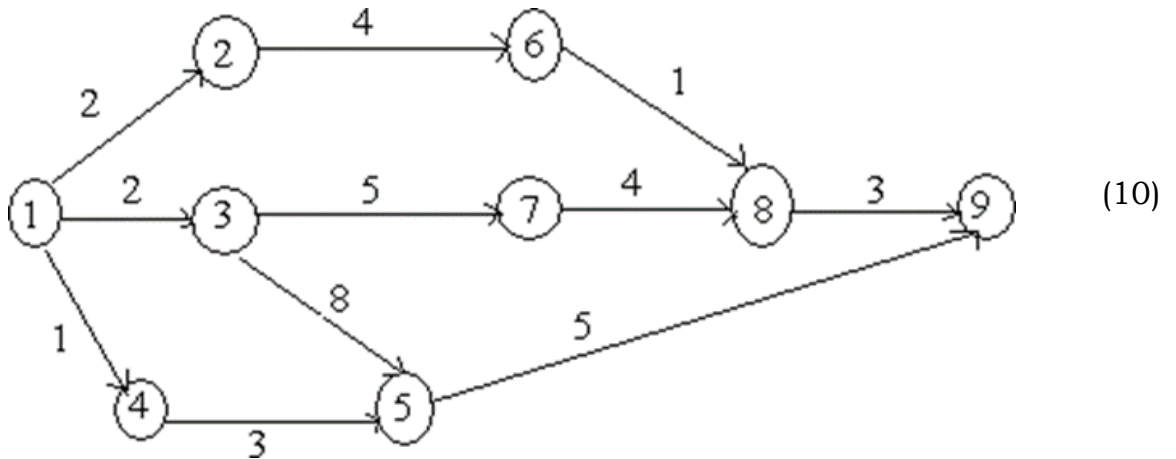
17. a) Write notes on Fulkerson's rule of numbering events. (4)
 b) A project has the following characteristics. Construct a PERT network. Find the critical path and variance for each event. (10)

Activity	Most optimistic time (a)	Most pessimistic time (b)	Most likely time (m)
(1 - 2)	1	5	1.5
(2 - 3)	1	3	2
(2 - 4)	1	5	3
(3 - 5)	3	5	4
(4 - 5)	2	4	3
(4 - 6)	3	7	5
(5 - 7)	4	6	5

(6 - 7)	6	8	7
(7 - 8)	2	6	4
(7 - 9)	5	8	6
(8 -10)	1	3	2
(9 -10)	3	7	5

OR

18. a) Differentiate between activity and event in a project network. (4)
 b) Find the critical path and calculate the slack time for the following network.



MODULE V

19. a) Clearly explain the functions of financial management? Describe the challenges faced by a finance manager. (7)
 b) Distinguish the following: Recruitment, Selection, Placement, and Induction. List the advantages and limitations of an interview as a selection technique. (7)

OR

20. a) Classify the various budgets and compare them. (6)
 b) Distinguish between the following: (a) Assets and Liabilities (b) Production concept and Marketing concept (c) Needs and Wants (d) Design functions and Operational control functions in operations (8)
