

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

## SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)

(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)

**SIXTH SEMESTER B.TECH DEGREE EXAMINATION (R), MAY 2023**

**COMMON TO CH,FT,ME,RB**

**(2020 SCHEME)**

**Course Code : 20HUT310**

**Course Name: Management for Engineers**

**Max. Marks : 100**

**Duration: 3 Hours**

### PART A

***(Answer all questions. Each question carries 3 marks)***

1. Give a brief description of the significance of the systems approach to the study of management.
2. List three important interpersonal skills to be possessed by a manager.
3. Explain the concept of delegation.
4. Define span of control. List the factors affecting it
5. Explain any three models of decision making.
6. Illustrate the difference between programmed and non-programmed decision.
7. Explain PERT and its importance in network analysis.
8. Explain the concept of crashing.
9. Describe the concept of marketing management.
10. What are the major functional areas of management.

### PART B

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

#### MODULE I

11. a) List and elaborate the important roles of a manager. (8)
- b) Explain the various level of management. (6)

#### OR

12. a) With suitable examples, illustrate the Planning, Organizing, Staffing, Leading and Controlling functions of management. (10)
- b) Describe the philosophy of Scientific Management. (4)

#### MODULE II

13. a) Describe in detail any five organizational structures used in industries. (10)
- b) How does a leader differ from a manager? Justify with example. (4)

#### OR

14. a) Explain the major principles of controlling with examples. (7)

- b) Describe about the major characteristics of leadership. (7)

### MODULE III

15. a) What is productivity? Mention the types of productivity. (4)
- b) Noel company is currently working with a process which after paying for materials, labour etc, brings profit of Rs.12000/-. The following alternatives are made available to the company. (10)
- a) The company can conduct research(R1) which is expected to cost Rs.10000/- having 90% chance of success. If it proves to be success the company gets gross income of Rs.25000/-.
- b) The company can conduct research (R2) which is expected to cost Rs.8000/-having 60% chance of success. If it proves to be success, the gross income will be Rs.25000/-.
- c) The company can pay Rs.6000/- as royalty for a new process which will bring a gross income of Rs.20000/-.
- d) The company continues the current process.
- Because of limited resources it is assumed that only one of the two types of research can be carried out. Use decision tree analysis to locate the optimal strategy of the company.

### OR

16. a) Describe about decision making under certainty, uncertainty and risk conditions. (9)
- b) Describe the following i) Critical activity ii) Dummy activity. (5)

### MODULE IV

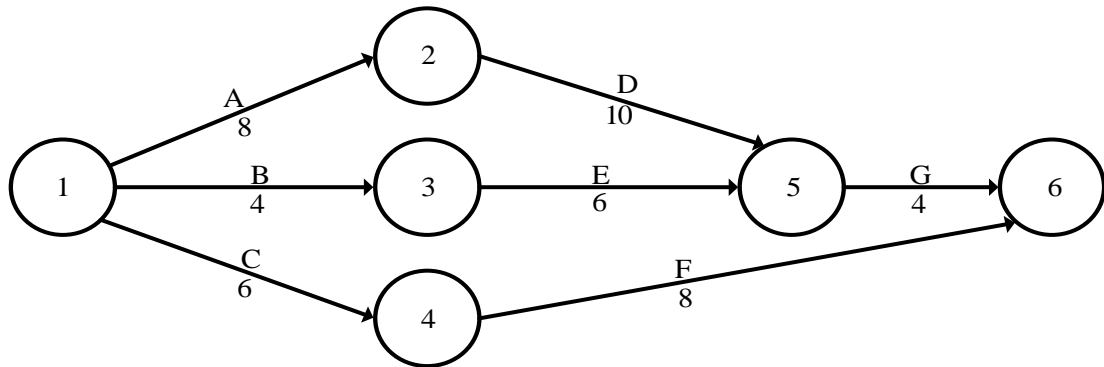
17. The data regarding the activities in a project are given below

Sl.No	Activity	$t_o$	$t_m$	$t_p$
1	1-2	2	5	14
2	1-6	2	5	8
3	2-3	5	11	29
4	3-4	1	4	7
5	3-5	5	11	17
6	4-5	2	5	14
7	6-7	3	9	27
8	5-8	2	9	8
9	7-8	7	13	31

It is given that scheduled date of completion of the project is 38 days. Draw the PERT network. Find the critical path. Also find the probability that the project can be completed at the scheduled time. (14)

OR

18. a) Find the total project duration and mark the critical path for the network diagram shown below. Also calculate *EST*, *LST*, *EFT*, *LFT* and floats. (10)



CPM-Problem-1

- b) Explain different types of networks. (4)

**MODULE V**

19. a) Describe about operations management. (7)  
 b) Describe about human resource management. (7)

OR

20. a) Explain the concept of financial management. Describe the challenges faced by a financial manager. (8)  
 b) Explain about the following a) Patents b) Intellectual property rights. (6)

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