Reg No.:_____   Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

B.Tech Degree S5 (S, FE) / S5 (PT) (S) / S3 (PT) (S) Examination June 2024 (2019 Scheme)

Course Code: HUT 310

Course Name: MANAGEMENT FOR ENGINEERS

(Use of normal distribution table is permitted)

Max. Marks: 100   Duration: 3 Hours

PART A

(Answer all questions; each question carries 3 marks)   Marks

1	Explain any three characteristics of management.	3
2	Define the term top level management with example.	3
3	Describe the factors governing the selection of span of control.	3
4	Outline the process of delegation.	3
5	Compare production and productivity.	3
6	List out and explain the models of decision making.	3
7	Differentiate between CPM and PERT.	3
8	What is Fulkerson's rule?	3
9	Why patents are important?	3
10	Define marketing and marketing mix.	3

PART B

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

Module -1

11	a)	Explain the systems approach to management with a block diagram.	10
	b)	What are the skills required in different levels of management.	4
12	a)	Specify the characteristics of management.	10
	b)	What is scientific management?	4

Module -2

13	a)	Explain the steps in the process of organizing.	8
	b)	Differentiate between strategic and tactical planning.	6
14	a)	Why motivation is important in work culture. Substantiate with examples.	10
	b)	Explain line and staff organization.	4

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Module -3

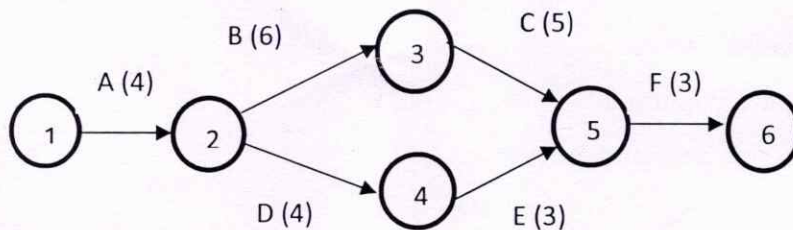15 a) Describe types of risks with example.   4

b) An investor wants to decide whether to build a small, medium or large building   10
for his business purpose in a situation of uncertainty. Payoff table of the project
is given below. The alternative to be selected is based on Maximin, Maximax
and Laplace principles. State clearly the reason for each selection.

Alternative	Low	Medium	High
Small building	8	8	8
Medium building	6	10	11
Large building	1	3	14

16 a) Explain different steps in decision tree analysis with an example.   6

b) Discuss controllable and non controllable factors affecting productivity.   8

Module -4

17 a) A project consists of six activities namely A, B, C, D, E and F with duration of   10
4,6,5,4,3 and 3 days respectively as shown in network diagram below. Calculate
EST,LST, EFT, LFT and floats. Also mark the critical path.

b) List out the steps involved in network analysis.   4

18 a) The data regarding activities in a project are given below. It is given that the   10
scheduled date of completion of project is 38 days. Draw the network diagram,
find the critical path and find the probability that project can be completed at
scheduled time.

Activity	t_0 (Optimistic time)	t_m (Most likely time)	t_p (Pessimistic time)
1-2	2	5	14
1-6	2	5	8
2-3	5	11	29
2-4	1	4	7
3-5	5	11	17

4-5	2	5	14
6-7	3	9	27
5-8	2	2	8
7-8	7	13	31

b) Write short notes on project crashing.   4

Module -5

19 a) Describe the significance of business plan in a company.   7

b) Elaborate different market segmentation strategies.   7

20 a) What are intellectual property rights? Explain the business importance of patents.   7

b) Explain the purpose of budgets.   7

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