

Code No: 127EG

R15

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, December-2023/January-2024

**MANAGEMENT SCIENCE
(Electronics and Communication Engineering)**

Time: 3 Hours

Max. Marks: 75

- Note:** i) Question paper consists of Part A, Part B.
ii) Part A is compulsory, which carries 25 marks. In Part A, Answer all questions.
iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART – A

(25 Marks)

- 1.a) Why is F. W. Taylor known as the father of scientific management? [2]
- b) What is departmentation? [3]
- c) What is inspection by attributes? [2]
- d) In the context of acceptance sampling, what are producer's and consumer's risks? [3]
- e) How frequently do organization undertake merit rating? Who needs to rate an employee? [2]
- f) What do you understand by employee placement? [3]
- g) How do you differentiate an activity from event? [2]
- h) What is float? What is independent float? [3]
- i) What characterizes 'objective'? [2]
- j) What is policy? How does it help managing organization? [3]

PART – B

(50 Marks)

- 2.a) Explain Mc Gregor's Theory X and Theory Y and its relevance to organizational management.
- b) Describe the leadership styles with illustration. [5+5]

OR

- 3.a) What are the advantages of decentralization?
- b) What is system approach to management? [5+5]

- 4.a) A group of 10 workers working 8 hours a day, on a group of engine lathes produced 384 pieces of acceptable quality. During the study it was observed that workmen were idle for 20% of the total available time and 80% of the time they worked at an average performance of 75%. Calculate standard time for the job assuming

- i) The operation to be completely manual.
- ii) That workmen are entitled for 20% allowance for this type of work.

- b) Briefly explain the stores records to be employed for taking materials into stock and for the issues. [6+4]

OR

5. Explain the various stages of the product life cycle and the nature of sales revenue and profit at each stage of the product life cycle. [10]

6. What is job evaluation? What are the methods for job evaluation? Briefly discuss. [10]

OR

7.a) What is induction? What is its importance?

b) What is employee turnover? What are the causes of high employee turnover? [5+5]

8. Khalsa Engineering Works intends to manufacture a batch of machines required by a furniture manufacturer. The activities required in the design and manufacture of the machines together with their durations in hour and constraints are listed below:

Activity	Duration	Activity	Duration
A	15	G	5
B	7	H	10
C	3	I	5
D	7	J	8
E	13	K	4
F	8	L	12
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Constraints:

a) A, B and C are start activities

b) A controls D and E

c) B precedes F and K

d) G can start on completion of D

e) H can commence after C is over and I after H is finished

f) E and F control J and M

g) L is controlled by K

h) M is also controlled by L

i) G, I, J and M all are last activities.

Draw the project network and identify the critical path. [10]

OR

9. Draw the network corresponding to the following and determine a) The earliest and the latest allowable start and completion times for each of the activities. b) The critical activities and the project duration and c) The total, free and independent floats for each of the activities.

[4+3+3]

activity	Duration in days	activity	Duration in days
1--2	3	3--5	4
1--3	4	3--6	6
1--4	14	4--5	1
2--3	10	5--6	1
2--6	5	---	---

10. What are generic strategies? Explain each of them and their importance. [10]

OR

11.a) What is value chain analysis?

b) What is SWOT analysis? What is its importance in strategic planning process? [5+5]

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