

Code No: 117EG

R13

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, March - 2017

MANAGEMENT SCIENCE

(Common to ECE, MMT)

Time: 3 Hours

Max. Marks: 75

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

**Part- A (25 Marks)**

- 1.a) What is scalar chain principle? [2]
- b) What are the advantages of narrow span of control? [3]
- c) What are Therbligs? [2]
- d) What are the control charts for inspection by attributes? [3]
- e) Define HRD. [2]
- f) What is job analysis? Why is it needed? [3]
- g) What is crash time? [2]
- h) What is cost slope? Mention its significance. [3]
- i) What is the typical time horizon for long range planning? [2]
- j) What is demotion? What would be its impact on workforce? [3]

**Part-B (50 Marks)**

- 2.a) Describe Maslow's theory of motivation.
- b) Define authority and responsibility. What is the relationship among them? [5+5]

**OR**

3. What are the various group of people to whom the business organization owe responsibility? Briefly describe the nature of each of them. [10]

- 4.a) Calculate the number of observations required for an accuracy of plus minus 5% and confidence level of 95%, if the average percentage of occurrence of an activity is 0.8.

- b) Describe the following store records:

- i) Goods Received Note ii) Invoice iii) Material Issue Requisition. [5+5]

**OR**

- 5.a) A company follows EOQ while planning for its requirement of materials. For particular item at EOQ, the inventory carrying cost is Rs5600/-. What is the total ordering cost?

- b) What are the elements of marketing mix? Explain each of them briefly. [2+8]

- 6.a) Explain some of the on- the- job training methods.

- b) What are the factors affecting compensation policy? [5+5]

**OR**

- 7.a) What are the steps involved while handling grievance?

- b) What are the various incentives offered by employer to its staff? [5+5]

8. A small project is composed of 7 activities whose time estimates are listed below.

| activity | Estimated time duration in weeks |             |             |
|----------|----------------------------------|-------------|-------------|
|          | optimistic                       | Most likely | pessimistic |
| 1-2      | 1                                | 1           | 7           |
| 1-3      | 1                                | 4           | 7           |
| 1-4      | 2                                | 2           | 8           |
| 2-5      | 1                                | 1           | 1           |
| 3-5      | 2                                | 5           | 14          |
| 4-6      | 2                                | 5           | 8           |
| 5-6      | 3                                | 6           | 15          |

Draw PERT diagram and represent the project completion time. [10]

**OR**

9. A project has the following time schedule:

| Activity | Time in months | activity | Time in months |
|----------|----------------|----------|----------------|
| 1-2      | 2              | 3-7      | 5              |
| 1-3      | 2              | 4-6      | 3              |
| 1-4      | 1              | 5-8      | 1              |
| 2-5      | 4              | 6-9      | 5              |
| 3-6      | 8              | 7-8      | 4              |
| --       | --             | 8-9      | 3              |

Construct PERT network and compute critical path and its duration. [10]

- 10.a) What is 'Bench marking' and what are its limitations?  
 b) What are the various elements in the corporate planning process? [5+5]

**OR**

- 11.a) What is the purpose of environmental scanning?  
 b) What is balance score card? [5+5]

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