

B.E. (ME) Part-IV 8th Semester Examination, 2006

Industrial Administration

(ME-803)

Time : 3 hours

Full Marks : 100

Use separate answerscript for each half.

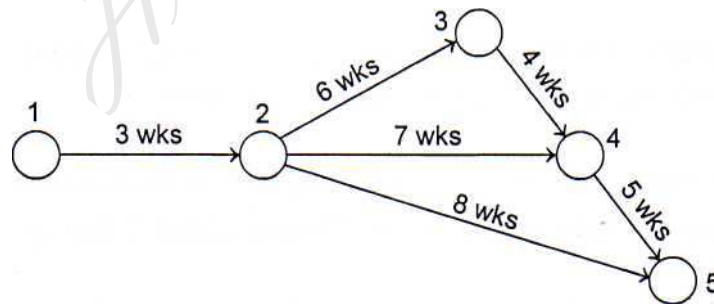
Answer SIX questions, taking THREE from each half.

The questions are of equal value.

FIRST HALF

1. a) What are the measures of Productivity? State the Enterprise Productivity factors,
b) Discuss the various Productivity Improvement Techniques.
2. For the following Project Network the Normal Duration/Cost and CRASH Duration/Cost are given below.

Activity	NORMAL		CRASH	
	Duration wk	Cost x1000Rs.	Duration wk	Cost x1 000 Rs.
1 - 2	6	300	4	400
2 - 3	4	480	5	520
2 - 4	7	2100	5	2500
2 - 5	8	400	6	600
3 - 4	4	320	3	360
4 - 5	5	500	4	520



Determine the Project duration, Locate the Critical Path and CRASH the network by 4 wks and find out the total cost.

3. a) Derive expressions for Probability of Zero occurrences by using (i) Poisson Distribution, (ii) Binomial Distribution.
b) Explain the curve for the relationship between Time of operation and failure rate till wear-out of the machine.

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(2)

- c) How do you determine Reliability of a system with two identical units (i) Actively connected in Parallel Redundancy and (ii) Connected as a stand by unit.
4. a) Explain the terms : Pure Strategy, Mixed Strategy, Fair Game, Zero-Sum Game and Saddle point related to GAME Theory.
- b) For the following (TWO-PERSON) game the pay-off matrix is given below. Determine the Best Strategies for the two players and the value of the game by deriving the formulae.

4	5
4	-2

PLAYER B

PLAYER A

5. Write explanatory notes on any three of the following :
- i) Activity Sampling
 - ii) ABC Analysis
 - iii) Value Engineering and Value Analysis
 - iv) JIT
 - v) Logistics and Material Management.

SECOND HALF

6. Define and explain the process of decision making. Write down the classification of decisions. What are the steps followed before decision making?
7. Describe Entrepreneurship. Discuss functions of an entrepreneur. Enumerate the factors contributing to failure of entrepreneurial ventures.
8. Write briefly scope of Industrial Psychology in modern management. What are the characteristics of group behaviour? Discuss X and Y theory.
9. Define Management Information System. What are the characteristics of good MIS? How is MIS classified?
10. Write short notes on any three of the following :
- i) Morale

- ii) Management decisions
- iii) MIS and its needs
- iv) Hawthorne Experiment.

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