

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/  
MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2018**

**INDUSTRIAL MANAGEMENT AND SAFETY**

[Time : 3 hours

(Maximum marks : 100)

PART — A

(Maximum marks : 10)

Marks

I Answer *all* questions in one or two sentences. Each question carries 2 marks.

1. List the major elements coming under the process of managing in management.
2. What does the term apprentice denote ?
3. Define quality.
4. List any two techniques used in operation research (OR) to solve optimization problems.
5. Expand the following :

(a) TBI      (b) DSIR

(5×2 = 10)

PART — B

(Maximum marks : 30)

II Answer any *five* of the following questions. Each question carries 6 marks.

1. List the advantages of training.
2. Explain the inventory models.
3. Identify the link between ISO-9001 and TQM.
4. Distinguish between CPM & PERT.
5. Explain Max min - Min max principle.
6. Define the terms :

(a) Factory      (b) Accident proness      (c) Unsafe act

7. Identify the functions of an entrepreneur.

(5×6 = 30)

## PART — C

(Maximum marks : 60)

(Answer *one* full question from each unit. Each full question carries 15 marks.)

## UNIT — I

- III (a) Explain partnership organization and Co-operative society. 8  
 (b) State the functions of human resource management. 7

OR

- IV (a) Explain Henry Fayol's principles of management. 8  
 (b) Define wages and list out different types of wages. 7

## UNIT — II

- V (a) List the objectives of quality planning. 8  
 (b) Describe the different methods of purchasing. 7

OR

- VI (a) List the elements of ISO-9000 series. 8  
 (b) Describe the centralized and decentralized stores. 7

## UNIT — III

- VII (a) A project consist of six activities ABCDEF with durations as shown in the table. Draw the net work diagram and mark the critical path using AOA method.

Activity	Dependence	Duration in days
A		8
B	A	12
C	B	10
D	B	8
E	D	6
F	C&E	6

- (b) List the various techniques used in operation research (OR) to solve optimization problems in management. 8

OR

- VIII (a) A toy company produces two products cars and guns. Each car gives a profit of ₹ 10 and each gun gives a profit of ₹ 20. The car and gun are produced through two sections S1 and S2. In section S1 each car requires one hour and gun requires 4 hours. In section S2 each car requires 5 hrs and gun requires 3 hrs. The total time available in section S1 is 30 hrs and Section S2 is 40 hrs. The company wants to maximize their profit. Formulate a linear programming model for this process. 8  
 (b) Define the following terms used in project management techniques :  
 (i) Latest finish time, earliest finish time (ii) Critical path, slack (iii) Event 7

## UNIT — IV

- IX (a) Explain the precautions to be observed while working on hazardous environment. 8  
 (b) Identify the risk taking qualities of an entrepreneur. 7

OR

- X (a) Explain the 4E's of accident prevention techniques. 8  
 (b) List out the steps involved in starting a small scale industry. 7