



TED (10) – 2004

Reg. No.....

(REVISION — 2010)

Signature .....

**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. Define the term management.
2. Define Joint Stock Companies.
3. What is meant by “Kaizan” ?
4. Define the term store and stock.
5. What is Aerosol ?

(5×2 = 10)

**PART — B**

(Maximum marks : 30)

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

1. List Henry Fayol's principles of management.
2. Explain line and staff organization structure with a chart.
3. Define merit rating. How it is differ from job evaluation.
4. What are the elements of TQM ?
5. State the functions of Sales Department.
6. List the causes of accident proneness.
7. What are the different causes of water pollution ?

(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) Differentiate between Partnership and Joint Stock Companies.

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- (b) The standard time for a particular job is 8 hrs. and the time taken by the worker to complete the job is 6 hours. If the operator is paid at the rate of Rs. 10 per hour, Calculate the earnings of the worker under both type of Halsey Plan and Rowan plan.

7

OR



Marks

- IV (a) What is labour turn over ? What are the causes of labour turn over ? 8  
(b) Describe formation, merits and demerits of co-operative societies. 7

## UNIT — II

- V (a) Write short notes on latest version of ISO-9000. 8  
(b) Explain the major functions of store keeping. 7

OR

- VI (a) Explain different steps for ISO-9000 installation. 8  
(b) Describe different methods of purchasing. 7

## UNIT — III

- VII (a) Differentiate between CPM and PERT. 6  
(b) A small engineering project consists of nine activities 3 time estimates for each activity given below. Calculate the expected time for each activity. Draw the network diagram and mark it on the diagram. Calculate the earliest expected time TE and the latest allowable time TL and mark them on the network diagram. Calculate the slack for each activity.

Activity	Optimistic time	Most likely time	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

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OR

- VIII (a) Define operational research. List the methods of optimization. 6  
(b) Describe the game Theory, two persons zero sum game and max min-mini max principle for saddle point. 9

## UNIT — IV

- IX (a) Explain various accident factors. 8  
(b) Explain different methods for solid waste management. 7

OR

- X (a) Explain the role of safety officers in organizing safety. 8  
(b) Explain the different methods for prevention and controlling of air pollution. 7