

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE, APRIL - 2026**

INDUSTRIAL MANAGEMENT AND SAFETY

[Maximum marks: 100]

[Time: 3 Hours]

PART – A

Maximum marks: 10

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

1. Define job evaluation.
2. List any two financial incentive plans.
3. List any two types of inventories from manufacturing aspect.
4. Define the term activity in CPM.
5. Define Factory.

(5 x 2 = 10)

PART – B

Maximum marks: 30

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

1. State major activities involved in manpower planning.
2. Describe the terms
 - i) Living wage
 - ii) Minimum wage
 - iii) Fair wave
3. Explain about the role of ISO standards.
4. List the factors to be considered while planning the layout and design of stores.
5. State the rule used for numbering of events in a network. Explain the method.
6. List the four E's of accident prevention. Explain any one.
7. Explain about the functions of an entrepreneur.

(5 x 6 = 30)

PART – C

Maximum marks: 60

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

UNIT – I

- III.** (a) Describe about Henry Fayol's principles of management. (7)
- (b) Write a short note on functions of Human Resource Management. (8)

OR

- IV.** (a) Explain about Joint Stock Company. (7)
(b) Give four examples each for Non financial and Semi – financial incentives. (8)

UNIT - II

- V.** (a) Describe about three prong approach to quality planning. (7)
(b) Write shorts on inventory models EOQ and ABC. (8)

OR

- VI.** (a) Explain vision, mission, and quality policy with examples. (7)
(b) List any four store-keeping records. Describe any two. (8)

UNIT - III

- VII.** (a) Following table gives the duration in days of an activity and dependency for a project. Draw the network diagram using AOA method. Find the project duration and mark the critical path. (8)

Activity	A	B	C	D	E	F	G	H
Dependency	-	-	A	A	A	B,C	D	E,F,G
Duration	4	5	3	2	8	7	3	2

- (b) Processing times in hours in Machines I and II are as follows.

<u>Product</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>Total Hours Available</u>
Machine I	3hrs	2hrs	2hrs	360hrs
Machine II	2hrs	3hrs	3hrs	480hrs
Profit	Rs. 8	Rs.6	Rs.4	

Available hours of machines can't be exceeded. Maximum number of product A that can be sold in the market is 90 per month. Formulate the linear programming problem. (7)

OR

- VIII.** (a) Draw a PERT network diagram from the following data and find the expected project duration. The time duration is given in days. (8)

Activity	1-2	1-3	2-4	3-4	4-6	5-6	3-5	5-7	6-7
t_o	1	1	2	3	3	2	2	5	3
t_m	3	4	4	6	5	7	5	7	5
t_p	5	7	12	9	7	12	8	15	13

- (b) For the following pay off matrix of firm A, determine the optimum strategies for both the firms and the value of the game using maximin – minimax principle. (7)

Firm B

Firm A	[3	-1	5	7	8]
		5	9	1	4	13	
		15	7	6	14	10	
		2	19	-5	3	4]

UNIT – IV

- IX.** (a) Identify the various accident factors in industry. (7)
(b) Describe the profile of an entrepreneur. (8)

OR

- X.** (a) Explain the importance of safety measures in industries. (7)
(b) Describe the procedure for the registration of SSI. (8)
