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DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE, NOVEMBER – 2020

INDUSTRIAL MANAGEMENT AND SAFETY

[Maximum Marks: 100] [Time: 3 Hours]

PART-A

[Maximum Marks: 10]

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

I. 1. What is Ownership?

2. Define Labour turn over.

3. List any two duties of store keeper.

4. Define activity and event.

5. What do you mean by Accident Proneness? (5 x 2 = 10)

PART-B

[Maximum Marks: 30]

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

II 1. Distinguish between Private Limited Company and Public Limited Company.

2. Explain the process of Manpower planning.

3. Explain three Prong approach to Quality planning.

4. List the objectives of Purchase department.

5. Explain the procedure for finding critical path in CPM.

6. Solve the following game using Maxi-Mini and Mini-Max principle and find the saddle point, best strategy for both players and the value of the game.

		Player B		
		B1	B2	B3
Player A	A1	40	9	2
	A2	30	15	7
	A3	10	5	4

7. List the Mechanical factors of Accident. (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) List and explain the functions of management. (10)

(b) A worker is employed for manufacturing toys at a piece rate of Rs. 50/- per toy. He has to manufacture minimum 40 toys in 8 hours of work, but he manufactured 45 toys in 8 hours. Calculate his total earning by Straight piece rate system.
Also calculate extra earning. (5)

OR

IV (a) Explain different methods of training. (10)

(b) List any five requirements of a good wage payment system. (5)

UNIT - II

V (a) Explain various elements of ISO 9000 series. (10)

(b) List any five functions of sales department. (5)

OR

VI (a) Explain the purchase procedure. (10)

(b) List Ten Manthras of TQM. (5)

UNIT- III

VII (a) A project consists of 6 activities A, B, C, D, E and F with duration 4, 6, 5, 4, 3 and 5 days respectively. Draw the network diagram and mark the Critical path and find the project duration. Use AOA method.

Activity	Dependency	Duration in days
A	-	4
B	A	6
C	B	5
D	A	4
E	D	3
F	C&E	5

(10)

(b) Explain game theory. (5)

OR

VIII (a) A company has 4 manufacturing units and which has to be distributed to 3 different wholesale distributors. The supply capacities of the manufacturing unit and the demands of the wholesalers at three different destinations are shown in the table. The cost of transporting one unit of the product from each of the manufacturing unit to each of the wholesaler is also given in the table. Find the total transportation cost using North West Corner Rule.

Wholesaler

Factory	D1	D2	D3	Supply
01	3	5	7	5
02	2	7	4	8
03	5	4	7	7
04	1	2	6	14
Demand	7	9	18	

(10)

(b) Compare CPM and PERT. (5)

UNIT - IV

IX (a) Explain 4 E's of accident prevention technique. (10)

(b) Explain Noise Pollution. (5)

OR

X (a) Explain the various phases of water treatment process. (10)

(b) Write any five role of safety officer. (5)
