TED (15) -5001
(Revision -2015)

N20-07127

Reg. No…….....
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DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE – NOVEMBER -2020.

INDUSTRIAL MANAGEMENT AND SAFETY

(Maximum Marks: 75) [Time: 2.15 hours]

PART–A

Marks

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

1. What is sole proprietorship organization?
2. What is EOQ?
3. Give two methods of operation research.
4. What is critical path?
5. Define severity rate. (3x2=6)

PART - B

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

1. What is a co-operative society? How to start a co-operative society?
2. Explain the major activities of manpower planning.
3. List any six functions of sales department.
4. Describe the three prong approach to quality planning.
5. Distinguish between CPM and PERT.
6. Give any six causes of accident proneness.
7. What are the main accident factors in an industry? Explain.

[4x6 =24]

PART - C

(Answer **any of the three units** from the following. Each full question carries 15 marks)

UNIT I

III (a) What are the fourteen principles of management by Henry Fayol? (7)

(b) Explain the main functions of management. (8)

OR

IV (a) List the factors to be considered for merit rating. (7)

(b) Define different types of wages. (8)

UNIT- II

V (a) List the ten "manthras" of TQM. (7)

(b) List the functions of store keeping. (8)

OR

VI (a) If the demand of an item is 4000 per annum. The procurement cost is Rs.100/- and carrying cost is Rs.20/- per unit per annum. Calculate the Economic Order Quantity (EOQ). (7)

(b) List the steps of purchase procedure. (8)

UNIT- III

VII (a) A small engineering project consists of 9 activities. The three time estimate for each activity is given below. Draw the network diagram, calculate the expected time, find the critical path and the project duration.

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	3	27
5 – 8	2	2	8
7 – 8	7	13	31

(10)

(b) Find the saddle point and optimal Strategies for player A and player B by using max--min and mini – max principle.

Player A	Player B		
	40	9	2
	30	15	7
	10	5	4

(5)

OR

VIII (a) Find the initial feasible solution of the following cost matrix transportation. Problem and find the total cost by North-West corner rule.

Plants	P	Q	R	Capacity
F1	3	1	3	8
F2	3	4	1	7
F3	4	2	2	9
Requirement	10	8	6	

(7)

(b) Define the following.

(i) Optimistic time

(ii) Pessimistic time

(iii) Most likely time

(iv)Earliest Finish time (EFT)

(v) Latest Finish time (LFT)

(vi) Slack or float

(vii) Concurrent activity

(viii) Dummy activity (8)

UNIT – IV

IX (a) What are the main functions of an entrepreneur? (7)

(b) Discuss the 4 E's of accident prevention techniques in industry. (8)

OR

X (a) What are the different constituents of feasibility study? (7)

(b) Discuss various mechanical factors for accident. (8)

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