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DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2019

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. State the term Nominal partners.
2. Define Real wages.
3. Define Inventory.
4. List the applications of PERT and CPM.
5. Write full form of SIDBI and TBI. (5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. Explain the terms staffing and directing.
2. Explain the advantages of training.
3. List the benefits of ISO 9000 : 2000 Company.
4. Explain EOQ and ABC inventory models.
5. Differentiate between CPM and PERT.
6. Explain the precautions to be observed while working under hazardous environment.
7. Write short notes on unsafe condition and unsafe act. (5×6 = 30)

Marks

PART — C

(Maximum marks : 60)

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

UNIT — I

III (a) Write short notes on financial incentives, Non-financial incentives and semi financial incentives. 7

(b) Explain Line and staff organisational structure with a chart. 8

OR

IV (a) Compare the contributions of FW Taylor and Henry Fayol in scientific management. 7

(b) State the Partnership organization. Give its advantages and disadvantages. 8

UNIT — II

V (a) Describe the duties and responsibilities of a store keeper. 7

(b) Define Total Quality Management and List the Ten Manthra's for TQM. 8

OR

VI (a) Distinguish between centralised store and de-centralised store. 7

(b) Explain the store purchasing procedure. 8

UNIT — III

VII (a) A factory producing two components named A and B. It requires machining and assembly processes. The component A and B requires time and profit as follows. Formulate Linear programming solution for maximization of the profit.

Process	*Components*		*Available time*
	A	B	
Machining	5	4	160
Assembling	2	5	100
Profit	30	60	6

(b) A small plant assembles PCs through inter linked activities as follows. Draw an arrow diagram (network), find Critical path and the total assembly duration.

Activities	1-2	1-3	1-4	2-5	3-6	3-7	4-6	5-8	6-9	7-8	8-9
Duration	2	2	1	4	8	5	3	1	5	4	3

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OR

Marks

VIII (a) Find out the basic feasible solution by least cost method and Total cost for the given transportation problem.

	D1	D2	D3	D4	Supply
S1	19	30	50	10	7
S2	70	30	40	60	9
S3	40	8	70	20	18
Demand	5	8	7	14	

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(b) Compute saddle point and optimal strategies for player A and player B by using max-min and mini-max principle.

		Player A			
		3	–1	5	10
Player B		–5	4	3	7
		8	7	6	8

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UNIT — IV

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

(b) Explain the environmental causes of accident. 8

OR

X (a) Explain the procedure for registration of a small scale industry. 7

(b) Discuss about different accident prevention techniques 4E s. 8