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3E1200

Roll No. ____

3E1200

B. Tech. III - Sem. (Main / Back) Exam., February - 2023
Artificial Intelligence & Data Science
Managerial Economics and Financial Accounting
Common to all Branches

Time: 3 Hours **Maximum Marks: 70**

Instructions to Candidates:

Attempt all ten questions from Part A, five questions out of seven questions from Part B and three questions out of five from Part C.

Schematic diagrams must be shown wherever necessary. Any data you feel missing may suitably be assumed and stated clearly. Units of quantities used /calculated must be stated clearly.

Use of following supporting material is permitted during examination. (Mentioned in form No. 205)

1. NIL 2. NIL

PART – A

(Answer should be given up to 25 words only) **[10×2=20]**

All questions are compulsory

Q.1 Define Managerial Economics.

Q.2 Define National Income.

Q.3 What do you mean by Law of Demand?

Q.4 Define price elasticity of demand.

Q.5 Define Production Function.

Q.6 What is opportunity cost?

Q.7 What do you mean by Monopoly?

Q.8 Define Financial Statement Analysis.

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Q.9 What is Pay Back Period?

Q.10 Explain Debtors Turnover Ratio.

PART – B

(Analytical/Problem solving questions) **[5×4=20]**

Attempt any five questions

Q.1 Distinguish between deductive and inductive methods in Economics.

Q.2 Discuss the various concepts of national income – Gross National Products, Net National Products, Personal Income and Disposable Income.

Q.3 Explain the various methods of demand forecasting.

Q.4 Distinguish between monopolistic competition and perfect competition.

Q.5 Explain the degrees of price elasticity of demand.

Q.6 The following table gives the total cost schedule of the firm. It is also given that the Average Fixed Cost (AFC) at 4 units of output is ₹ 5.

Quantity (Q)	Total Cost (TC)
1	50
2	65
3	75
4	95
5	130
6	185

Find the Total Variable Cost (TVC) and Total Fixed Cost (TFC) schedules of the firm for the corresponding values of output.

Q.7 Define Balance Sheet. Give two characteristics of balance sheet.

PART – C

(Descriptive/Analytical/Problem Solving/Design Questions) **[3×10=30]**

Attempt any three questions

Q.1 The following is the Balance Sheet of Riddhima Motors -

Balance Sheet as on 31st March, 2022

Liabilities	₹	Assets	₹
Equity Share Capital	2,00,000	Fixed Assets	4,60,000
Preference Share Capital	1,00,000	Investments (Long Term)	15,000
General Reserve	50,000	Stock	50,000
Profit & Loss Account	70,000	Debtors	20,000
Debentures	1,00,000	Cash	15,000
Creditors	30,000		
Bank Overdraft	10,000		
	5,60,000		**5,60,000**

Calculate the following ratios :

(a) Current Ratio (b) Liquid Ratio/Quick Ratio (c) Debt Equity Ratio (d) Proprietary Ratio

(e) Solvency Ratio

Q.2 Discuss the nature and scope of Managerial Economics.

Q.3 Explain the Law of Variable Proportions. Explain various stages of this law with the help of diagram.

Q.4 How the price and output is determined under perfect competition during short period?

Q.5 A company has to select one of the two alternative projects whose particulars are given below -

	Project A (₹)	Project B (₹)
Initial Investment/Initial Outlay	1,18,720	1,00,670
Net cash inflow at the end of the year :		
1	1,00,000	10,000
2	20,000	10,000
3	10,000	20,000
4	10,000	1,00,000

The company can arrange necessary fund at 10%. Compute Net Present Value (NPV) of each project and comment on the result.

The PV factor of ₹ 1 received at the end of each year at 10% discount rate are as follows -

Year	1	2	3	4
10%	0.909	0.826	0.751	0.683