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Code No: 185AR

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year I Semester Examinations, January - 2025

BUSINESS ECONOMICS AND FINANCIAL ANALYSIS

(Common to CSE(AI&ML), CSE(IOT), AI&DS, AI&ML)

Time: 3 Hours

Max. Marks: 60

Note: This question paper contains two parts A and B.

i) Part- A for 10 marks, ii) Part - B for 50 marks.

- Part-A is a compulsory question which consists of ten sub-questions from all units carrying equal marks.
- Part-B consists of ten questions (numbered from 2 to 11) carrying 10 marks each. From each unit, there are two questions and the student should answer one of them. Hence, the student should answer five questions from Part-B.

PART- A

(10 Marks)

- | | | |
|------|---|-----|
| 1.a) | What is business economics? | [1] |
| b) | What is inflation? | [1] |
| c) | What is advertising elasticity of demand? | [1] |
| d) | Define the law of supply. | [1] |
| e) | What is the formula for the Cobb-Douglas production function? | [1] |
| f) | What is a kinked demand curve? | [1] |
| g) | What is a journal? | [1] |
| h) | What is a full disclosure? | [1] |
| i) | What is net profit margin? | [1] |
| j) | How do you get fixed assets turnover ratio? | [1] |

PART - B

(50 Marks)

- | | | |
|------|---|-------|
| 2.a) | Examine the National Income calculation methods. | |
| b) | 'Business Economics is multidisciplinary in nature', discuss. | [5+5] |
- OR**
- | | | |
|------|--|-------|
| 3.a) | XYZ Corporation, a manufacturing company, wants to expand its operations by building a new factory. It needs \$1,000,000 in capital to fund the expansion. The company is considering two sources of funds: Bank Loan: A \$1,000,000 loan with a 7% annual interest rate, repayable over 10 years. Issuing Bonds: Issue corporate bonds with a 5% annual coupon rate, raising the same \$1,000,000. Question: Which source of funds would be more cost-effective for XYZ Corporation over the 10-year period? Assume that the company is in a tax bracket of 30%. | |
| b) | Evaluate the impact of inflation in Indian economy. | [5+5] |

4.a) The income of consumers increases from ₹5,00,000 to ₹5,50,000 per year, and the quantity demanded of a luxury good increases from 1,000 units to 1,200 units. Calculate the income elasticity of demand for this product.

b) Discuss the factors affecting the elasticity of demand. [5+5]

OR

5.a) Evaluate the steps in demand forecasting.

b) Differentiate the Supply Function and Law of Supply. [5+5]

6.a) Give the cost function and explain its components.

b) Discuss the features of perfect competition. [5+5]

OR

7.a) Elucidate the various pricing methods in vogue.

b) A software company develops and sells an educational app. The company incurs fixed costs of \$120,000 per year for salaries, rent, and software infrastructure. The app is sold for \$50 per license, and the variable cost per license is \$20 (which includes development, maintenance, and marketing costs per unit sold).

i) Calculate the break-even point in units (licenses sold).

ii) How much revenue does the company need to generate to break even? [5+5]

8.a) Discuss the five elements of financial statements.

b) From the balance sheet for a business, prepare a trading account to determine the gross profit or loss.

Balance Sheet as of December 31, 2023

Assets:

Cash: Rs.5,000

Inventory (Closing Stock): Rs.12,000

Accounts Receivable: Rs.7,000

Prepaid Expenses: Rs.1,000

Liabilities:

Accounts Payable: Rs.4,000

Capital: Rs.21,000

Additional Information:

Opening Stock: Rs. 10,000

Purchases: Rs.25,000

Sales: Rs.40,000

Wages: Rs.3,000

Direct Expenses (e.g., freight, factory overhead): Rs.2,000

[3+7]

OR

- 9.a) Discuss the requirements for preparation of the balance sheet.
 b) Below are the balances of various ledger accounts of XYZ Pvt. Ltd. as of December 31, 2024. Prepare a Trial Balance and comment. [5+5]

Account Name	Debit(Rs)	Credit(Rs)
Cash	15,000	
Accounts Receivable	18,000	
Accounts Payable		10,000
Sales Revenue		35,000
Rent Expense	5,000	
Capital		18,000
Furniture	8,000	
Salaries Expense	7,000	
Bank Loan		8,000

- 10.a) A firm's current assets and current liabilities are 1,500 and 600 respectively. How much can it borrow from bank without reducing the current ratio below 1.5?
 b) Discuss the important liquidity ratios. [6+4]
- OR**
- 11.a) Define and evaluate the various leverage ratios.
 b) Determine the sales of a firm with the following financial data. [4+6]

Current ratio	1.5
Acid-test ratio	1.2
Current liabilities	8,00,000
Inventory turnover ratio	5 times

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