## Code No: 154AH

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech II Year II Semester Examinations, April/May - 2023

BUSINESS ECONOMICS AND FINANCIAL ANALYSIS
(Common to CSE, IT, ITE, CE(SE), CSE(CS), CSE(IOT), CSE(N))
Time: 3 Hours
Max. Marks: 75
Note: i) Question paper consists of Part A, Part B.
ii) Part A is compulsory, which carries 25 marks. In Part A, answer all questions.
iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have $a, b$ as sub questions.

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PART - A
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1.a) Differentiate between Private company and Public company.
b) Discuss the multidisciplinary nature of Business Economics.
c) State and explain the Law of demand.
d) Define elasticity of demand and explain the relationship between slope and the elasticity of demand.
e) Why is average cost curve of a firm U-shaped in the short run?
f) Explain briefly what you mean by Product Life Cycle (PLC) based pricing. [3]
g) Why are accounting concepts and conventions required?
h) Explain the features of Balance sheet.
i) What is Gross profit ratio? Qutline its significance.
j) Discuss the objectives dikatio analysis.
2.a) What are the non-conventional sources of finance available in India?
b) Explain the salient features of each such source and attempt a critical comparison of these sources of finance.

## OR

3.a) How is business economics different from general economics? Explain.
b) Comment on the role of the business economist in managerial decision making. [5+5]
4.a) Explain the concept of cross elasticity of demand and state the formula. How would you measure such elasticity?
b) After a careful statistical analysis, a firm in Hyderabad concludes that the market demand function for a commodity marketed by it is given as:
$\mathrm{Q}_{\mathrm{A}}=20-2 \mathrm{P}_{\mathrm{A}}-0.5 \mathrm{P}_{\mathrm{B}}+0.01 \mathrm{M}$ where $\mathrm{Q}_{\mathrm{A}}$ is the quantity demanded of commodity $\mathrm{A}, \mathrm{P}_{\mathrm{A}}$ is the price of commodity $\mathrm{A}, \mathrm{B}$ is the price of commodity B and M is the disposable income of consumers of Hyderabad. Calculate the price and cross elasticities of demand for commodity A , when $\mathrm{P}_{\mathrm{A}}=5, \mathrm{P}_{\mathrm{B}}=10$ and $\mathrm{M}=1,000$.
[5+5]
5.a) Discuss the various steps involved in demand forecasting.
b) The following table provides information on the sales (in Rs. '000) of a product during the years 2018 to 2022.

| Years | $\mathbf{2 0 1 8}$ | $\mathbf{2 0 1 9}$ | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sales | 120 | 130 | 135 | 142 | 138 |

Estimate the sales for the years 2023 and 2024.
6.a) Explain briefly the concept of elasticity of factor substitution.
b) The production function for a firm manufacturing locks is $\mathrm{Q}=4 \mathrm{~K}^{1 / 2} \mathrm{~L}^{1 / 2}$. The firm wants to maximize output (Q) subject to the cost constraint $\mathrm{C}=2 \mathrm{~K}+8 \mathrm{~L}=64$, where ' K ' is capital input and ' L ' is labour input. Advise the firm of the optimal input combination that they should choose.

## OR

7.a) Discuss the usefulness of Break-even analysis.
b) You are given the following data:

Fixed expenses: Rs.4, 000
Break-even point: Rs.10, 000
Calculate:
i) P/V ratio.
ii) Profit when sales are Rs.20, 000.
iii) New break-even point if selling price is reduced by $20 \%$.
8.a) Explain what do you understand by 'Accounting equation'.
b) Elaborate the rules for maintaining the Books of accounts.
c) Show the effect of the follofing business transactions on assets, liabilities and capital through accounting equation:

| 19, Particulars | Rs. |
| :---: | :---: |
| Co'inmenced business with cash | 20,000 |
| N Goods purchased on credit | 7,000 |
| (r) Furniture purchased | 3,000 |
| Paid to creditors | 2,000 |
| Amount withdrawn by the proprietor | 4,000 |
| - Interest on capital | 1,000 |
| T Transfer from capital to loan | 5,000 |

OR
9. From the trial balance of Krishnan given below, prepare the trading and profit \& loss account for the year ending $31^{\text {st }}$ March, 2023 and balance sheet as on that date.

| Head of Account | Debit <br> Amount(Rs.) | Credit <br> Amount(Rs.) |
| :--- | ---: | ---: |
| Drawings and Capital | 10,560 | 119,410 |
| Plant \& Machinery | 38,300 |  |
| Sundry debtors and <br> creditors | 62,000 | 59,360 |
| Wages | 43,750 |  |
| Purchases and sales | 256,590 | 356,430 |
| Opening stock | 95,300 |  |
| Salaries | 12,880 |  |
| Insurance | 930 |  |
| Cash at bank | 18,970 |  |
| Interest on loan | 14,370 |  |
| Discount allowed | 4,870 |  |
| Furniture | 12,590 |  |
| Loan payable | 43,990 |  |
| Motor van | 615,100 | 615,100 |
|  |  | 79,900 |

Closing stock was valued at Rs.90, 000.
10.a) From the following information calculate:
i) Current ratio
ii) Liquid ratio

|  |  |  |  |  | Rs. |  |
| :--- | ---: | :--- | ---: | :---: | :---: | :---: |
| Cash | 10,000 | Bills Receivable | 6,000 |  |  |  |
| Cash at Ienk | 5,000 | Stock | 8,500 |  |  |  |
| Debto | 20,000 | Prepaid expenses | 2,500 |  |  |  |
| Creditors | 15,500 | Outstanding <br> expenses | 2,500 |  |  |  |
| Bills Payable | 4,000 |  |  |  |  |  |

b) Calculate:
i) Total capital turnover ratio
ii) Working capital turnover ratio and
iii) Fixed assets turnover ratio from the following information:

| Balance Sheet as on ........ |  |  |  |
| :--- | ---: | :--- | ---: |
| Liabilities | Amount Rs. | Assets | Amount Rs. |
| Share capital | $1,00,000$ | Fixed assets | $1,70,000$ |
| 12\% Debentures | 80,000 | Current assets | $1,10,000$ |
| Reserves | 20,000 |  |  |
| Current Liabilities | 80,000 |  |  |
|  | $2,80,000$ |  | $2,80,000$ |

Net sales during the year amounted to Rs.3, 00,000.
c) Calculate Debt equity ratio from the following information:

Total Assets: Rs11, 00,000
Total Debt ; Rs.9, 00,000
Current Liabilities: Rs.5, 00,000

## OR

11.a) Distinguish between fund flow and cash flow.
b) What are the objectives of Solvency Ratios?
c) Calculate Debtors turnover ratio and debts collection period from the following information:
Credit sales of the year: Rs.9,00,000
Debtors
: Rs. 90,000
Bills Receivable : Rs.60,000.
d) The operating profit of Ratan Lal Ltd after charging interest on debentures and tax is a sum of Rs. $4,00,000$. The amount of interest is Rs. 30,000 and the provision for tax has been made for Rs.70,000. Calculate the interest coverage ratio.

