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Code No. : 17545 S N/O

VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS), HYDERABAD
Accredited by NAAC with A++ Grade

B.E. VII-Semester Supplementary Examinations, May/June-2023

Economics and Finance for Engineers
 (Mech. Engg.)

Time: 3 hours

Max. Marks: 60

Note: Answer all questions from **Part-A** and any **FIVE** from **Part-B**

Part-A (10 × 2 = 20 Marks)

Q. No.	Stem of the question	M	L	CO	PO
1.	Define demand.	2	1	1	9
2.	List out the types of elasticity of demand.	2	1	1	9
3.	Explain skimming pricing method with example.	2	2	2	9
4.	State the purpose of break-even analysis.	2	4	2	9
5.	Compare the concepts of working capital	2	4	3	11
6.	Calculate Pay Back Period for a project requiring an outlay of Rs.80000, Estimated life of the project is 4 years, Tax rate is 50%. The estimated cash inflows for each year Rs.30000/-. Depreciation is on straight line method	2	2	3	11
7.	Discuss the purpose of balance sheet preparation in the corporate sector.	2	4	4	4
8.	Calculate Gross profit ratio if sales are Rs.275000, Gross Profit Rs. 27000/- Sales returns Rs.5000.	2	2	4	4
9.	Expand the terms GST,CGST,SGST,IGST	2	1	4	12
10.	Mention the slab rates for a senior citizen for the current financial year as per the old regime.	2	1	4	12
Part-B (5×8 = 40 Marks)					
11. a)	Distinguish between relatively elastic and relatively inelastic demand with suitable examples.	4	4	1	9
b)	Explain the terms - internal economies and external economies and diseconomies of scale.	4	2	1	9
12. a)	Prepare a cost sheet from the information provided. Raw material Consumed Rs.22000, Carriage inwards Rs.2000, direct wages Rs.3300, Fuel and power (25% for factory and 75% for office) Rs.3000, Office Manager's salary Rs.12000, Advertisement expenses Rs.3500, Opening stock of finished goods Rs.800, Closing stock of finished goods Rs.200, Sales Rs.66000.	4	3	2	9
b)	Calculate P/V ratio and Break-even point (in Sales value) are Rs.330000, Raw material cost Rs.150000, Labour charges Rs.25000, Fixed Cost Rs.100000.	4	2	2	9

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13. a)	Explain the long term sources of finance.	4	2	3	11
b)	Calculate NPV and state the acceptability of the project. Initial investment Rs.250000, Cost of capital 10%, Cash inflows (CFAT) for four years are Rs.80000, 95000, 110000, 122000.	4	3	3	11
14. a)	List the limitations of ratio analysis.	4	1	4	4
b)	Calculate Operating Cost ratio, Debtors turnover ratio, Net profit ratio from the information given. Cost of goods sold Rs.400000, Net sales Rs.700000(on credit), Administrative expenses Rs.75000, Selling Expenses Rs.2000, Sundry Debtors Rs.12000 Net Profit Rs.70000/-	4	4	4	4
15. a)	Briefly explain about any 4 heads of income chargeable under Income Tax.	4	2	4	12
b)	Calculate Income from Salaries as per new regime if X receives a basic pay of Rs.25000 per month, DA Rs.3000 p.m out of which 25% enters into pay for service benefits, CCA Rs.200 p.m and HRA Rs.2200 p.m. X stays in his own house.	4	1	4	12
16. a)	Explain the differences between Micro and Macro Economics.	4	2	1	9
b)	Discuss any four methods of pricing.	4	2	2	9
17.	Answer any <i>two</i> of the following:				
a)	Calculate Accounting Rate of Return from the following data. The Profits before depreciation and tax for 3 years are 120000, 150000, and 175000. The cost of the machine is Rs.220000 with nil salvage value. Depreciation on straight line method and tax rate 50%.	4	4	3	11
b)	Compute Current Ratio and Acid Test Ratio and interpret the company's liquidity position. Stock Rs.75000, Debtors Rs.25000, Cash in hand Rs.2000, Creditors Rs.6600, Prepaid expenses Rs.200, Bills payable Rs.500, Bank overdraft Rs.5000.	4	4	4	4
c)	Calculate tax liability for Ashok for the current financial year as per old regime and new regime if his Gross Salary is Rs.1250000, Income from Business or Profession is Rs.220000, Income from House property Rs.315000 and Dividend and Interest income are Rs.2000 and 7500 respectively Suggest which regime is beneficial for Ashok assuming that he made Rs.100000 contribution towards PPF, EPF contribution Rs.75000 and professional Tax Rs.2400 per annum.	4	4	4	12

M : Marks; L: Bloom's Taxonomy Level; CO; Course Outcome; PO: Programme Outcome

i)	Blooms Taxonomy Level - 1	20%
ii)	Blooms Taxonomy Level - 2	37.5%
iii)	Blooms Taxonomy Level - 3 & 4	42.5%
