Bachelor of Production Engineering Examination, 2022

(3rd Year, 2nd Semester)

Production Economics and Financial Management

Time: Three Hours **Full Marks: 100**

Answer any five questions

1.

Answer any four questions. **4 x 5**

(i) Cobb-Douglas production function; **(ii)** price control; **(iii)** production possibility frontier, **(iv)** law of equi-marginal utility, **(v)** law of demand and determinants of demand, **(vi)** isoquants..

2.

(a) What do you understand by 'economies of scale'? Summarise internal economies of scale. **2 + 10**

(b) Explain in your own words the conditions under which law of demand does not operate. Define 'utility'. **6 + 2**

3.

The following trial balance was taken from the books of Lakshmi Co. on December 31, 2021. All amounts are in Rupees.

Cash	13,000	
Sundry debtors	10,000	
Bills receivable	8,500	
Opening stock	45,000	
Building	50,000	
Furniture and fittings	10,000	
Investment (Temporary)	5,000	
Plant and Machinery	15,500	
Bills payable		9,000
Sundry creditors		20,000
Lakshmi's capital		78,200
Lakshmi's drawings	1,000	
Sales		100,000
Sales discount	400	
Purchases	30,000	
Freight inward	1,000	
Purchase discount		500
Sales salary expenses	5,000	
Advertising expenses	4,000	
Miscellaneous sales expenses	500	
Office salary expenses	8,000	
Misc. general expenses	1,000	
Interest income		1,000
Interest expenses	800	
	2,08,700	2,08,70

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Note: closing stock on December 31, 2021 was Rs.10,000

Prepare a trading account, profit and loss account, and an end of year balance sheet from the above trial balance. **7 + 6 + 7**

4.

From the following list of transactions prepare appropriate journal entries, ledger entries and the relevant month- end trail balance **6 + 10 + 4**

(i) On 2/1/22, Lakshmi Narayanan started a business called, Maha Laxmi Traders, with an investment of Rs.50 lakh and another Rs. 50 lakh as short term loan.
(ii) On 5/1/22, acquired building properties (Fixed Assets) for Rs. 50 Lakh in cash.
(iii) On 10/1/22, purchased inventories of Rs. 20 Lakh in cash.
(iii) On 31/1/22, made sales of Rs 20 Lakh on credit.
(iv) On 31/1/22, converted 40 % of the short-term loan into long-term loan.

5.

A mechanical device with an economical life of 5 years will cost Rs. 50,000 for purchase. Maintenance will cost Rs. 2,000 per year starting from the 1st year. The device will generate revenues of Rs. 12,000 each year. There will be an upgradation cost of Rs 10,000 for the device at the end of 3rd year. Salvage value will be Rs 20,000. If the required rate of return is 10%, should the device be purchased based on

(i) NPV? **5**
(ii) IRR? **10**
(iii) PI? **5**

6.

(a) What are the features of a Joint stock company? **6**
(b) Enumerate advantages and disadvantages of joint stock organizations. **6**
(c) Explain forms of Public-Private Partnership. **6**
(d) What is the difference between acquisitions and takeovers? **2**

7.

Fill in the blanks **10 x 2**

(a) _________ is called the king of all books of account.
(b)_________ is called the primary book of entry.
(c) Tata Power Ltd. In the book of a Mumbai business owner shall be treated as ________ account according to the English system of classification of accounts.
(d) The minimum number of members for the private limited company is _______.
(e) The maximum number of memberships for partnership business in the financial sector is _________.
(f) For whom to produce is one of the ________ problems of an economy.
(g) For a price floor the price is set ________ the market equilibrium price.
(h) Equal cost curve's another name is _________ .
(i) The straight line joining the tangential points of isoquants and isocosts is called _______.
(j) To make the world a better place to live in is one is one of the objectives of _______.

8.

Apply the assumptions traditional approach of capital structure theories to solve the following cases:

EBIT = Rs. 150,000, presently 100% equity finance with cost of equity = 16%. Introduction of debt to the extent of Rs. 300,000 @ 10% interest rate or Rs. 500,000 @ 12%. For case I , cost of equity = 17%, and for case II, cost of equity = 20%. Find the value of the firm and the weighted average cost of capital for both the cases. **10 + 10**