PVP 20

Code: 20HS7701A

IV B.Tech - I Semester – Regular / Supplementary Examinations
DECEMBER 2025

MANAGERIAL ECONOMICS AND FINANCIAL ANALYSIS

(Common for ALL BRANCHES)

Duration: 3 hours Max. Marks: 70

Note: 1. This paper contains questions from 5 units of Syllabus. Each unit carries 14 marks and have an internal choice of Questions.
2. All parts of Question must be answered in one place.

BL – Blooms Level CO – Course Outcome

			BL	CO	Max. Marks
		UNIT-I			
1	a)	Explain the features and exceptions of Law of Demand. List out various factors that determine the demand for a mobile phone.	L2	CO1	7 M
	b)	'Statistical and mathematical techniques complicate the process of demand forecasting', do you agree? Support your answer.	L3	CO1	7 M
		OR			
2	a)	What is elasticity of demand? Explain how do you measure the elasticity of demand.	L2	CO1	7 M
	b)	How managerial economics helps in solving managerial problems?	L2	CO1	7 M
		UNIT-II			
3	a)	Explain any five important cost concepts useful for managerial decisions.	L3	CO2	7 M

	b)	Explain Break Even Analysis by using break even chart diagram.	L3	CO2	7 M
		OR			
4	a)	A firm has fixed cost of Rs.60000, selling price per unit is Rs.60 and variable cost per unit is Rs.30. Determine Break Even Point in terms of volume and Revenue.	L4	CO2	7 M
	b)	Discuss the features of Monopoly and Monopolistic competition.	L2	CO2	7 M
		UNIT-III			
5	a)	Explain phases of business cycle.	L3	CO3	7 M
	b)	Write advantages and disadvantages of partnership firm.	L2	CO3	7 M
		OR			
6	a)	Explain characteristic features of industrial organization.	L3	CO3	7 M
	b)	Describe the types of partners in a business partnership.	L2	CO3	7 M
		UNIT-IV			
7	a)	Discuss about double-entry system.	L3	CO1	7 M
	b)	Write the difference between Present Worth and Future Worth of evaluating alternatives.	L2	CO4	7 M
		OR			
8	a)	What are the functions of financial management?	L2	CO1	7 M
	b)	A project requires an investment of ₹1,20,000 and generates cash inflows of ₹35,000 per year for 5 years. The discount rate is 12%. Calculate (i) the Present Worth (PW) of the project (ii) The Annual Equivalent (AE) value and (iii) The Future Worth (FW) at the end of year 5.	L4	CO4	7 M
		UNIT-V			
9	a)	The project involves a total initial expenditure of Rs.2,00,000 and its estimated to generate a future cash inflow of Rs.30,000;Rs.38,000; Rs.25,000; Rs.22,000; Rs.36,000;Rs.40,000;Rs.40,000;Rs.28,000; Rs.24,000 and Rs.24,000 for ten years. Calculate payback period and ARR.	L4	CO5	7 M
	b)	Explain in detail the methods of capital budgeting.	L3	CO5	7 M
		OR			
10	a)	What are the common methods of depreciation and explain them in detail.	L3	CO5	7 M
	b)	Find out the Net Present Value of the following project of a firm during five years. The cost of the project is 30,000 and given discount rate at 9%.	L4	CO5	7 M

Year	Cash Inflow
1	12,000
2	10,000
3	5,000
4	9,000
5	8,000

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SCHEME OF VALUATION

PART – A (5 x 14 = 70 Marks)			
1.	(a)	Meaning of Law of demand	2 M
		Features and exceptions of Law of demand	2 M
		Factors affecting law of demand	3 M
	(b)	Meaning of demand forecasting	3M
		Statistical methods of demand forecasting	4 M
2.	(a)	Meaning of elasticity of demand	3 M
		Methods for measuring elasticity of demand	4M
	(b)	Meaning of managerial economics	3 M
		Applications of managerial economics	4 M
3.	(a)	Meaning of Cost	3 M
		Any five concepts in cost	4 M
	(b)	Meaning of BEP	3 M
		BEP Graph	4 M
4.	(a)	BEP in Rs.	4 M
		BEP in Units	3 M
	(b)	Features of Monopoly	4 M
		Features of Monopolistic competition	3 M
5.	(a)	Meaning of Business cycle	3M
		Phases of business cycle	4 M
	(b)	Meaning of partnership	3 M
		Advantages of partnership	4 M
6.	(a)	Meaning of industrial organisation	3 M
		Features of industrial organisation	4 M

	(b)	Meaning of partnership	3 M
		Type of partners	4 M
7.	(a)	Meaning of double entry system	7 M
	(b)	Meaning of present worth method and future worth method	3 M
		Difference between present worth method and future worth method	4M
8.	(a)	Meaning of financial management	3 M
		Functions of financial management	4 M
	(b)	As a whole	7M
9.	(a)	Calculation of Payback period	3 M
		Calculation of IRR	4 M
	(b)	Meaning of capital budgeting	3 M
		Methods of capital budgeting	4 M
10.	(a)	Meaning of depreciation	3 M
		Methods of depreciation	4 M
	(b)	As a whole	7 M

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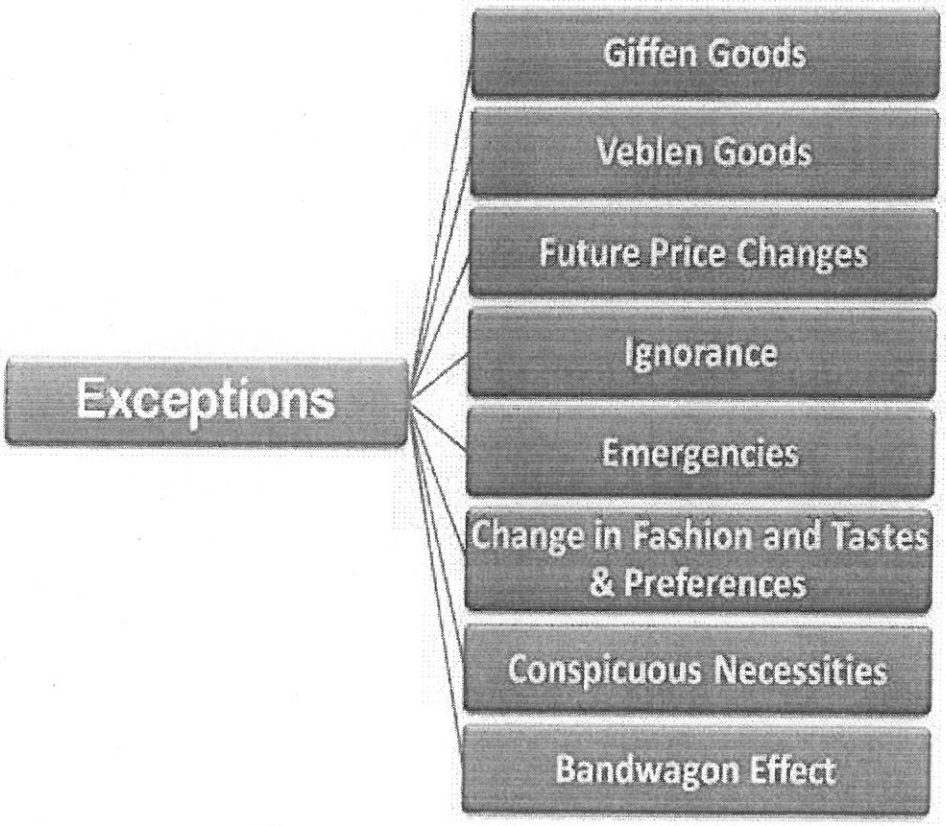
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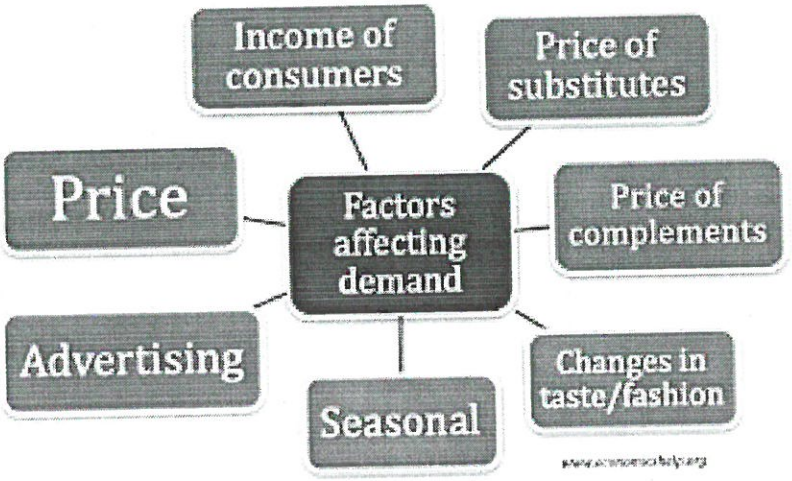
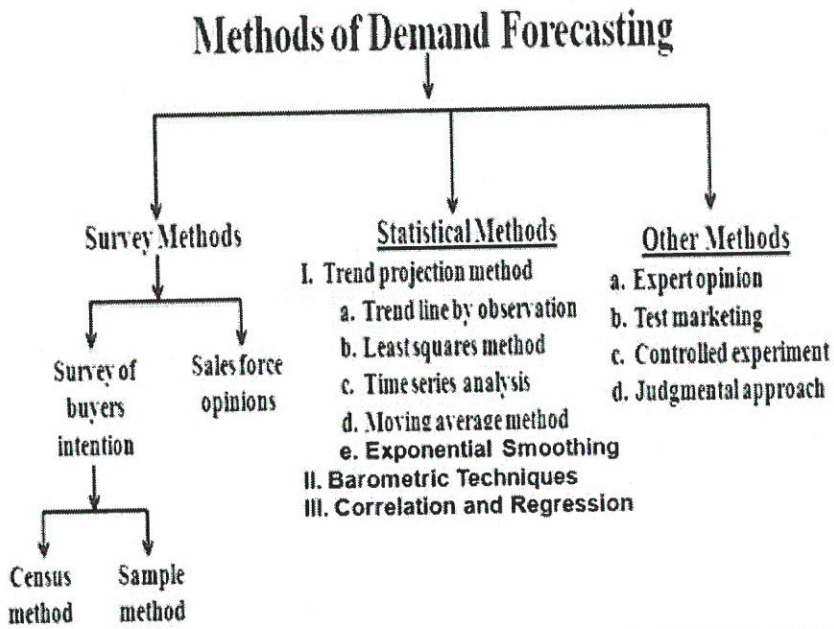
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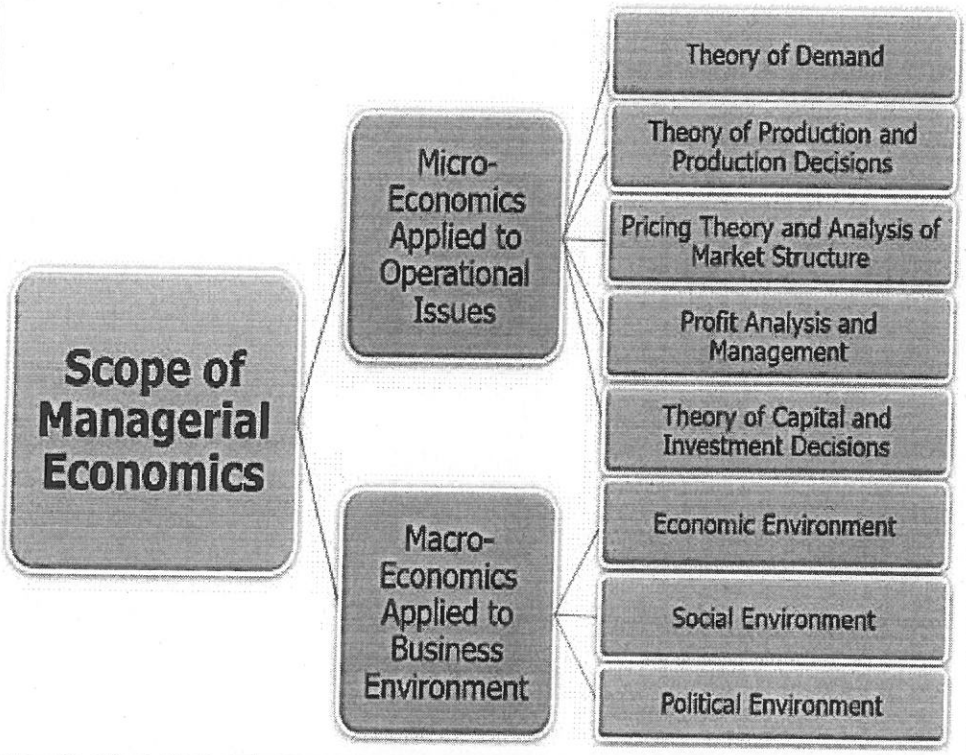
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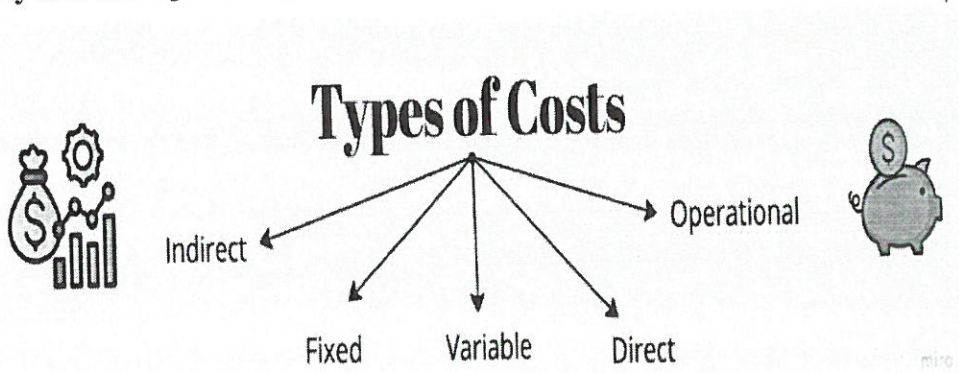
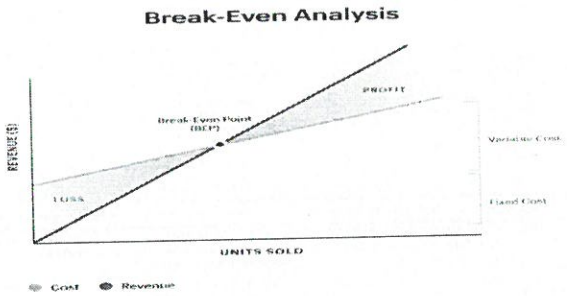
Duration: 3 Hours **Max. Marks: 70**

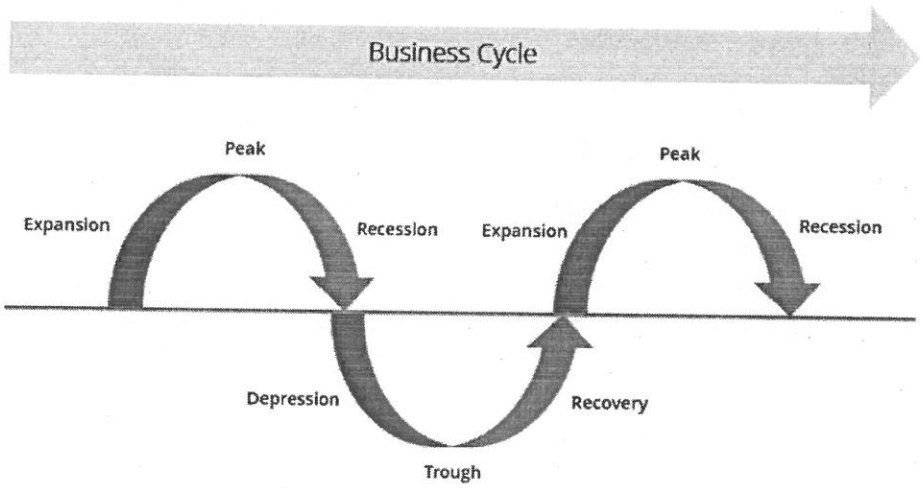
DETAILED SCHEME OF VALUATION

		PART – A (5 x 14 = 70 Marks)	
1.	(a)	**Meaning of Law of demand** The Law of Demand states that, assuming other factors stay constant (ceteris paribus), the quantity demanded for a product decreases as its price increases, and vice versa;	2 M
		Features and exceptions of Law of demand The Law of Demand states that as price increases, quantity demanded decreases (inverse relationship), creating a downward-sloping curve, with features like price-quantity inverse relation and being qualitative. Exceptions  	2 M

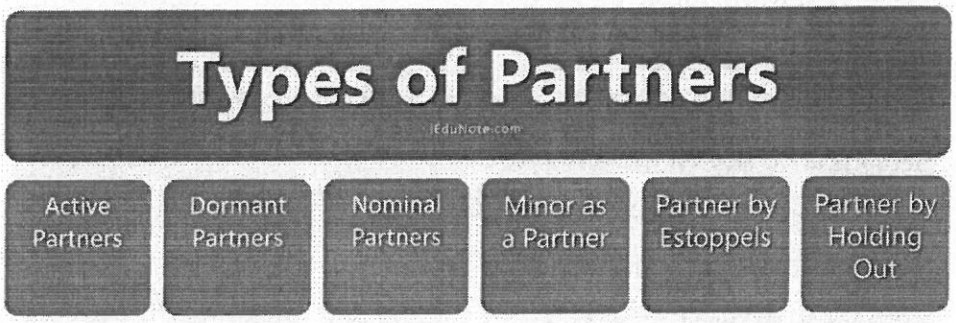
		Factors affecting law of demand  	3 M
	(b)	**Meaning of demand forecasting** Demand forecasting is the process of estimating future customer demand for a product or service, using historical data, market trends, and other factors to predict *what*, *how much*, and *when* customers will buy, helping businesses optimize inventory, manage supply chains, plan resources, and avoid costly overstocking or lost sales from understocking	3M
		Statistical methods of demand forecasting  	4 M
2.	(a)	**Meaning of elasticity of demand** Elasticity of demand measures how much the quantity demanded of a good	3 M

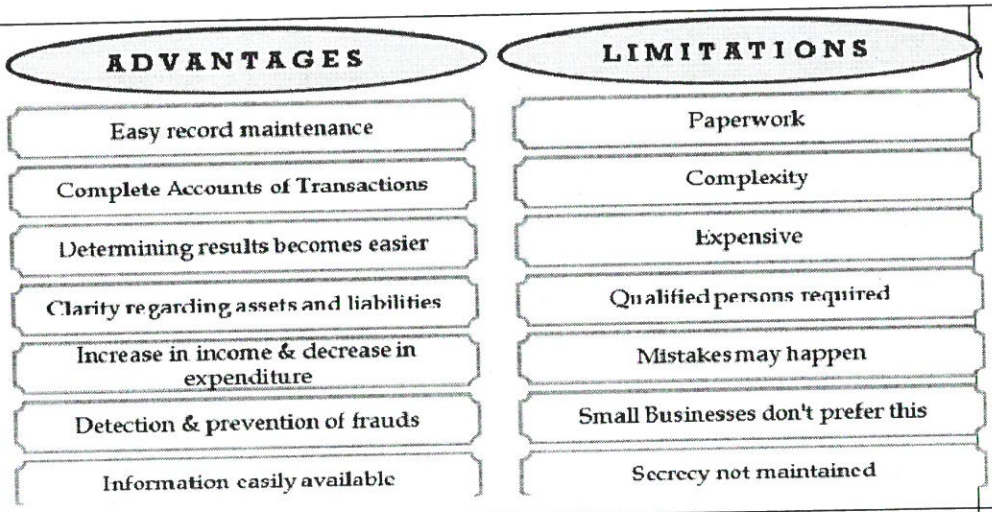
		or service changes in response to a change in a factor like price or income.	
		Methods for measuring elasticity of demand • Total outlay method • Point method • Arc Method	4M
	(b)	**Meaning of managerial economics** Managerial economics applies economic theories, principles, and methods (especially from microeconomics) to business decision-making, bridging the gap between economic theory and practical management to help firms efficiently allocate scarce resources, solve problems, forecast trends, and achieve objectives like profit or growth.	3 M
		Applications of managerial economics 	4 M
3.	(a)	**Meaning of Cost** an amount that has to be paid or spent to buy or obtain something the price paid or required for acquiring, producing, or maintaining something, usually measured in money, time, or energy;	3 M

		Any five concepts in cost 	4 M
	(b)	**Meaning of BEP** BEP usually means **Break-Even Point**, the sales level where total revenue equals total costs, resulting in zero profit or loss, crucial for business planning to know minimum sales needed to cover expenses	3 M
	(b)	**BEP Graph** 	4 M
4.		**BEP in Units** BEP =(FC/Contribution per Unit) =60000/60-30 = 2000 Units	4 M
	(a)	**BEP in Rs.** BEP in Rs. = BEP units* Selling Price Per Unit Or BEP = FC/ PV Ratio BEP = 2000*60 = Rs.120000	3 M
	(b)	**Features of Monopoly** • Single seller • Restricted entry	4 M

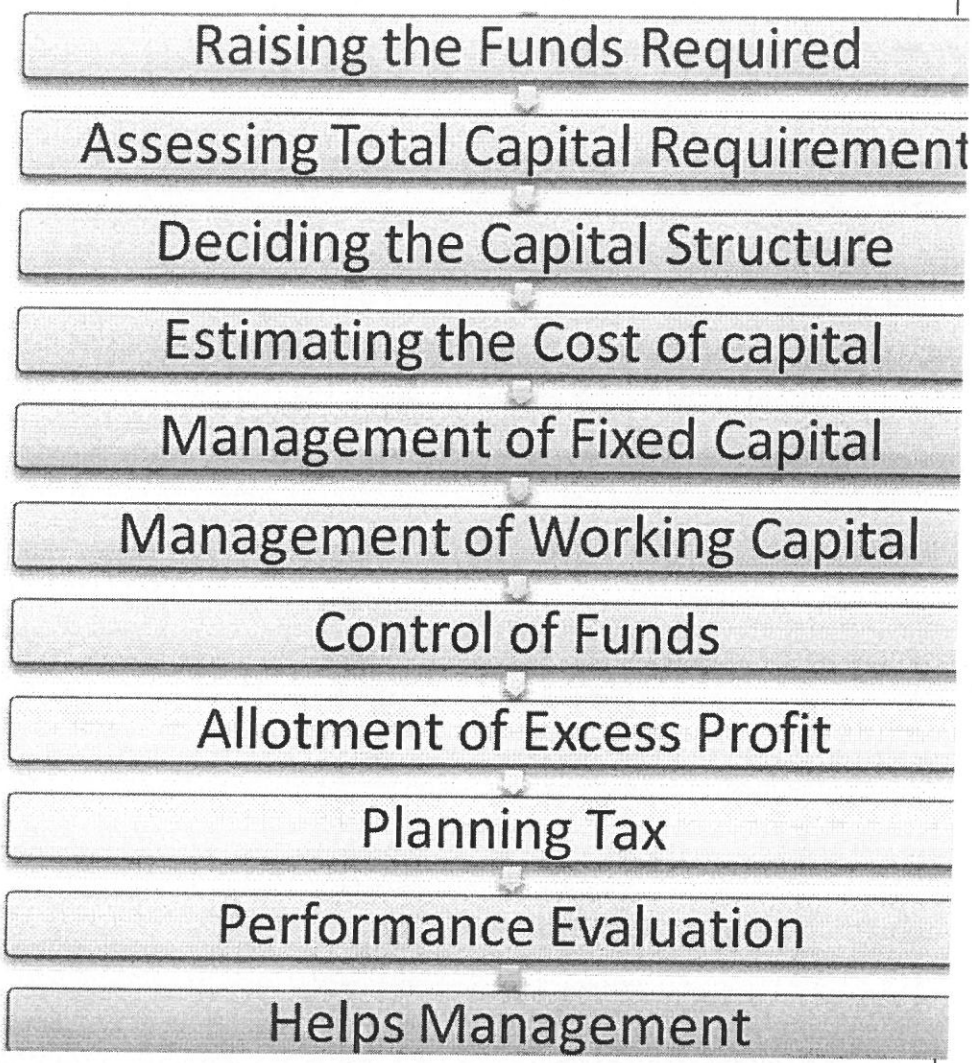
		• Homogeneous project • Full control of Price • Price discrimination	
		Features of Monopolistic competition 1. Large Number of Producers and Sellers 2. Product Differentiation 3. Free Entry and Exit of Firms 4. Important Role of Selling Costs 5. Flat Demand Curve 6. Absence of Interdependence 7. Lack of Perfect Knowledge **8.** Concept of Group	3 M
5.	(a)	**Meaning of Business cycle** a cycle or series of cycles of economic expansion and contraction. A business cycle is the natural, recurring up-and-down movement of an economy's overall activity, characterized by phases of expansion (growth) and contraction (slowdown or recession), measured by fluctuations in GDP, income, and employment, showing that economies grow and shrink in waves rather than a straight line. It's not perfectly regular but involves alternating periods of prosperity and slump.	3M
		Phases of business cycle 	4 M

	(b)	**Meaning of partnership** • A partnership is a formal agreement where two or more parties cooperate to manage a business, share its profits and losses, and divide responsibilities. • Partners can be individuals, businesses, or other legal entities, and they contribute resources like capital, skills, or labor. Partnerships offer shared control, risk, and financial obligations, with types varying in partner liability, such as general partnerships where all partners are fully liable and limited partnerships where some partners have limited liability.	3 M
		Advantages of partnership • Shared responsibility • Diverse skill set • Easy to formation • Access to capital • Flexible in management • Personalised relations • Increase networking	4 M
6.	(a)	**Meaning of industrial organisation** Industrial Organization (IO) is an economics field studying how firms and industries behave, focusing on market structures (monopoly, oligopoly, competition) and strategic interactions, using tools like game theory to analyze pricing, production, and competition, and informing policy on antitrust and regulation to improve market efficiency and welfare	3 M
		Features of industrial organisation • Focus on Imperfect Competition: • Strategic Firm Behavior: • Market Structure Analysis: • Economic Welfare & Policy: • Transaction Costs & Information:	4 M

	(b)	**Meaning of partnership** • A partnership is a formal agreement where two or more parties cooperate to manage a business, share its profits and losses, and divide responsibilities. • Partners can be individuals, businesses, or other legal entities, and they contribute resources like capital, skills, or labor. Partnerships offer shared control, risk, and financial obligations, with types varying in partner liability, such as general partnerships where all partners are fully liable and limited partnerships where some partners have limited liability.	3 M
		Type of partners 	4 M
7.	(a)	**Meaning of double entry system** • The double-entry system is an accounting method where every financial transaction is recorded in at least two different accounts with equal and opposite entries (debit and credit) to ensure accuracy and balance. • This system maintains the fundamental accounting equation (Assets = Liabilities + Owners' Equity) and provides a complete financial picture, enabling businesses to create accurate financial reports and make informed decisions.	7 M

			
	(b)	**Meaning of present worth method and future worth method** The present worth (present value) method determines the current value of future cash flows, while **the** future worth (future value) method determines the value of a current investment at a specified date in the future. Both methods are based on the core financial principle of the time value of money, which states that a dollar today is worth more than a dollar in the future due to its earning potential.	3 M
		Difference between present worth method and future worth method The Present Worth (PW) method values money in today's terms (using discounting to find current worth), ideal for comparing projects now, while the Future Worth (FW) method projects current money forward to a future date (using compounding), useful for long-term planning and goal setting; essentially, PW answers "How much is that future amount worth today?" and FW answers "How much will my money grow to in the future?". PW focuses on current reality with inflation considered, whereas FW projects future growth based on interest rates	4M
8.	(a)	**Meaning of financial management** Financial management is the strategic planning, organizing, directing, and controlling of an individual's or organization's monetary resources to achieve specific financial goals, focusing on maximizing value, ensuring sustainability, and making informed decisions about investments, cash flow, and risk	3 M

Functions of financial management



4 M

(b) A project requires an investment of Rs. 120000 and generate cash flows of Rs. 35000 per year for 5 years. The discount rate 12%. Calculate (1) the present worth of the project (2) the annual equivalent value and (3) the future worth at the end of year 5.

7M

(1) the present worth of the project

$$PW = A * \frac{1-(1+i)^n}{I}$$

$$PW = 35000 * \frac{1-(1.12)^5}{0.12} = \text{Rs. } 126168$$

Net present worth = 126168 – 120 000 =6168

(2) the annual equivalent value

$$AE = PW \times \frac{I(1+i)^n}{(1+i)^n-1}$$

AE = 6168*.2776= Rs. 1713 per year

(3) the future worth

$FW = PW * (1+i)^n$

FW – 6168 *(1.12)5 = 6168 *17628 = 10870

9. (a)

Calculation of Payback period

year	cash inflows	cumulative cash inflows
1	30000	30000
2	38000	68000
3	25000	93000
4	22000	115000
5	36000	151000
6	40000	191000
7	40000	231000
8	28000	259000
9	24000	283000
10	24000	307000

Payback period $= L_1 + (A/B)$

$= 6 + (9000/40000)$

$= 6+0.225 = 6.225$ years

3 M

Calculation of ARR

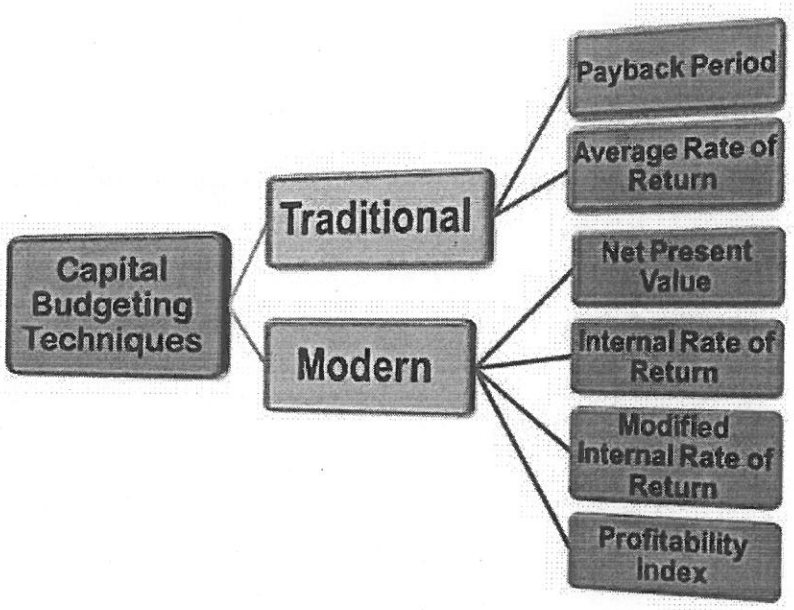
$$ARR = \frac{\text{Average returns}}{\text{Average investment}} * 100$$

$$ARR = \frac{30700}{2000000} * 100 = 15.35\ \%$$

Average returns = (total returns / number of years)

Average investment = (total investment /2)

4 M

		Meaning of capital budgeting Capital budgeting is the process of evaluating and selecting long-term investment projects or capital expenditures. It involves analyzing the potential profitability of projects to determine which ones are worth pursuing and allocating financial resources accordingly.	3 M
	(b)	**Methods of capital budgeting** 	4 M
10.		**Meaning of depreciation** Deprecation is the loss of an asset due to usage or passage of time, etc. Depreciation is an accounting method that systematically reduces the recorded cost of a fixed asset over its useful life, accounting for wear and tear or obsolescence.	3 M
	(a)	**Methods of depreciation** 1. Straight line method 2. Demising balance methods 3. Sum of years digit method 4. Annuity method 5. Sinking fund method 6. Machine hour rate method 7. Production unit method. **8.** Depletion method	4 M

(b)

year	cash inflows	discounted rate	Discounted cash inflows
1	12000	0.9174	11008.8
2	10000	0.8417	8417
3	5000	0.7722	3861
4	9000	0.7084	6375.6
5	8000	0.6499	5199.2
discounted cash inflows			34861.6
investment			30000
Net present value			4861.6

7 M

Students can use following formula also for calculating the NPV of the project.

$$NPV = -C_0 + \frac{C_1}{1+r} + \frac{C_2}{(1+r)^2} + \ldots + \frac{C_T}{(1+r)^T}$$

$-C_0 = Initial\ Investment$
$C = Cash\ Flow$
$r = Discount\ Rate$
$T = Time$