



Even Semester End Term Examination, May / June 2026

Date: 30/05/2026

Time: 01.00 PM - 04.00 PM

Course Code: MGT2015

Course Name: Engineering Economics

Semester: Sixth Semester

Max. Marks: 100

Weightage: 50%

CO - Levels	CO1	CO2	CO3	CO4
Marks	34	38	70	38

Part A: Answer Following Questions. 20 M

Qn.No	Questions	M	CO	BT
1	Define scarcity.	2	CO1	BT1
2	State the Law of supply.	2	CO2	BT1
3	List any 2 determinants of demand.	2	CO2	BT1
4	What is market equilibrium?	2	CO2	BT1
5	Define TP.	2	CO3	BT1
6	State the meaning of MP and present the formula used for its calculation.	2	CO3	BT1
7	Define variable cost.	2	CO3	BT1
8	State the meaning of Budgeting?	2	CO4	BT1
9	Define IRR.	2	CO4	BT1
10	State the full form of abbreviations PV, FV, ARR, TMV.	2	CO4	BT1

Part B: Answer Any 1 Following Questions. 16 M

Qn.No	Questions	M	CO	BT
11.a	Outline the principles of engineering economics.	6	CO1	BT2
11.b	Summarize the process of rational decision-making.	10	CO1	BT2
12.a	Explain the concept of opportunity cost with suitable examples.	6	CO1	BT2
12.b	Explain PPC using a diagram and briefly state its main assumptions.	10	CO1	BT2

Part C: Answer Any 1 Following Questions. 16 M

Qn.No	Questions	M	CO	BT
13.a	Explain price elasticity of demand.	6	CO2	BT2
13.b	Illustrate the determination of equilibrium price and quantity from the given demand and supply equations. Also explain the related concepts along with a graph. $Q_d = 120 - 3P$, $Q_s = 30 + 3P$.	10	CO2	BT2
14.a	Outline the concept of elasticity of supply and its determinants.	6	CO2	BT2
14.b	The price of a commodity decreases from ₹40 to ₹30 and quantity demanded increases from 50 to 80 units. Illustrate the concept of price elasticity of demand with the given data, find the elasticity, and interpret the result with appropriate explanation.	10	CO2	BT2

Part D: Answer Any 1 Following Questions. 16 M

Qn.No	Questions	M	CO	BT												
15.a	Explain the law of variable proportions and outline its three stages of production.	6	CO3	BT2												
15.b	The following data shows labour employed and total product: <table><thead><tr><th>Labour (L)</th><th>Total Product (TP)</th></tr></thead><tbody><tr><td>1</td><td>10</td></tr><tr><td>2</td><td>28</td></tr><tr><td>3</td><td>54</td></tr><tr><td>4</td><td>76</td></tr><tr><td>5</td><td>90</td></tr></tbody></table> Find Average Product (AP) and Marginal Product (MP) from the given data. Apply AP, MP and TP to determine the stage of production, and explain how the stages are identified using these values.	Labour (L)	Total Product (TP)	1	10	2	28	3	54	4	76	5	90	10	CO3	BT3
Labour (L)	Total Product (TP)															
1	10															
2	28															
3	54															
4	76															
5	90															
16.a	Explain the concepts of Total, Average, and Marginal Cost curves and illustrate their behavior using a graph.	6	CO3	BT2												
16.b	A manufacturing firm is analyzing its cost structure to improve	10	CO3	BT3												

efficiency. The firm records the following data for different levels of output:

As a cost analyst, you are required to: Find the marginal cost (MC), average cost (AC), total fixed cost (TFC), total variable cost (TVC) for each level of output. Apply these cost concepts to explain the cost behavior as output increases. Also, identify and explain the optimal output level based on cost efficiency.

Output (Q)	Total Cost (TC)
0	130
1	150
2	260
3	330
4	420

Part E: Answer Any 1 Following Questions. 16 M

Qn.No	Questions	M	CO	BT				
17.a	Explain various cost concepts in production.	6	CO3	BT2				
17.b	A firm has: Total Fixed Cost = ₹12,000 Selling Price = ₹60 Variable Cost = ₹40 Apply the concept of Break-even Point (BEP) to compute the BEP (in units and sales value) using the given data. Examine and interpret the result, and illustrate the BEP concept with a graphical representation.	10	CO3	BT3				
18.a	Explain the law of diminishing returns and its relevance in production decisions.	6	CO3	BT2				
18.b	A manufacturing company is increasing the number of workers in its production unit to improve output. The production manager records the following data: <table><tr><th>Labour (L)</th><th>Total Product (TP)</th></tr><tr><td> </td><td> </td></tr></table>	Labour (L)	Total Product (TP)			10	CO3	BT3
Labour (L)	Total Product (TP)							

1	20			
2	55			
3	85			
4	100			
5	95			
Compute Average Product (AP) and Marginal Product (MP) from the given data and plot the TP, AP, and MP curves. Identify the different stages of production on the graph, and justify how these stages and the optimal level of labour are determined.				

Part F: Answer Any 1 Following Questions. 16 M

Qn.No	Questions	M	CO	BT
19.a	Apply the concept of time value of money to compute the future value of ₹10,000 invested at 10% interest for 3 years. Also explain why time value of money is used in financial decision-making.	6	CO4	BT3
19.b	Explain the concept of compound interest under quarterly compounding, and compute the future value of ₹1,000 deposited for 5 years at 12% annual interest compounded quarterly. Also analyse the result in terms of growth of investment over time.	10	CO4	BT4
20.a	Apply the concept of depreciation in financial accounting to determine how the value of assets decreases over time, and analyze its importance in accurate profit measurement and asset valuation for a firm.	6	CO4	BT4
20.b	Apply the concept of declining balance method of depreciation to compute the annual depreciation and book value of a machine costing ₹40,000 at 10% per annum for 3 years. Explain the concept of depreciation, and discuss why depreciation is important in financial accounting for profit measurement and asset valuation.	10	CO4	BT3