

Name:
Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2021

Course: Business Economics
Program: B COM (Hons.)
Time: 03 Hours

Semester: I
Course code: ECON1001
Max. Marks: 100

SECTION A

1. Each Question will carry 2 Marks
2. Instruction: Select the correct answer(s)

		CO
Q1	The theory of consumer choice provides the foundation for understanding <ol style="list-style-type: none">a. the structure of production.b. the profitability of a firm.c. product demand.d. product supply.	CO1
Q2	As a general rule, the theory of consumer choice provides insight into the behavior of <ol style="list-style-type: none">a. individuals who make unconstrained choices.b. individuals who make constrained choices.c. individuals who are unaware of how to maximize their well-being.d. irrational consumers.	CO1
Q3	The theory of consumer choice examines <ol style="list-style-type: none">a. the determination of output in competitive markets.b. the trade-offs inherent in decisions made by consumers.c. how consumers select inputs into manufacturing production processes.d. the determination of prices in competitive markets.	CO2
Q4	A budget constraint <ol style="list-style-type: none">a. represents the bundles of consumption that makes a consumer equally happy.b. shows the consumption bundles that a consumer can afford.c. reflects the desire by consumers to increase their income.d. shows the prices that a consumer chooses to pay for products he consumes.	CO2
Q5	Assume that a college student spends her income on Coke and Snickers. During finals week, the price of a Snickers candy bar is \$0.50, and a can of Coke is \$0.75. If she has \$20 of income, she could possibly choose to consume <ol style="list-style-type: none">a. 24 Snickers bars and 12 cans of Coke.b. 22 Snickers bars and 14 cans of Coke.c. 15 Snickers bars and 18 cans of Coke.d. 10 Snickers bars and 20 cans of Coke.	CO1

Q6	A consumer that doesn't spend all of her income a. would be at a point inside her budget constraint. b. would not be consuming positive quantities of all goods. c. must be consuming at a point where her budget constraint touches one of the axes. d. would be at a point outside of her budget constraint.	CO2
Q7	When income increases, a budget constraint a. will shift inward, parallel to its initial position. b. will shift outward, parallel to its initial position. c. will pivot around the "Y" axis. d. will pivot around the "X" axis.	CO1
Q8	Which of the following statements is true? a. Consumers must purchase some of each good available. b. Consumers cannot consume at points outside their budget constraint. c. Optimizing consumers spend half of their income on each of two goods. d. Consumers cannot consume at points inside their budget constraint.	CO2
Q9	The slope of the budget constraint is NOT a. the rate at which a consumer can trade one good for another. b. the relative price of two goods. c. constant. d. equal to the slope of the highest indifference curve.	CO1
Q10	Consumer preferences are typically represented by a. budget constraints. b. cost curves. c. supply curves. d. indifference curves.	CO2

SECTION B

1. Each question will carry 5 marks
2. Instruction: Write short / brief notes

Q1.	Explain the difference between the short-run and the long-run	CO1
Q2.	Explain the law of diminishing returns	CO2
Q3.	Draw the graph of following demand function $Q_d = 10 - 2P \text{ where } 0 \leq P \leq 5$	CO3
Q4.	A firm produces output according to the production function $Q = F(K, L) = 2K + 4L$ a. How much output is produced when $K = 2$ and $L = 3$? b. If the wage rate is \$30 per hour and the rental rate on capital is \$10 per hour, what is the cost-minimizing input mix for producing 16 units of output?	CO4

SECTION-C

1. Each Question carries 10 Marks.
2. Instruction: Write long answer

Q 1.	Draw the graph of following information and explain movement and shift along the curve				CO1
	Price	Income			
		Rs. 20,000	Rs. 30,000	Rs. 40,000	
	10	2	5	8	
	9	6	9	12	
	8	10	13	16	
	7	14	17	20	
	6	18	21	24	
5	22	25	28		

Q2	Calculate price elasticity from the following										CO3
	Price (Rs.)	8	7	6	5	4	3	2	1	0	
	Quantity (1b)	0	1000	2000	3000	4000	5000	6000	7000	8000	

Q3	A firm can manufacture a product according to the production function										CO4
	$Q = F(K, L) = K^{3/4}L^{1/4}$										
Calculate the average product of labor, APL, when the level of capital is fixed at 16 units and the firm uses 16 units of labor. How does the average product of labor change when the firm uses 81 units of labor?											

SECTION-C

1. Each Question carries 15 Marks.

2. Instruction: Write long answer

Q1	An economist estimated that the cost function of a single-product firm is										CO3
	$C(Q) = 50 + 25Q + 30Q^2 + 5Q^3$										
Based on this information, determine:											
a. The fixed cost of producing 10 units of output.											
b. The variable cost of producing 10 units of output.											
c. The total cost of producing 10 units of output.											
d. The average fixed cost of producing 10 units of output.											
e. The average variable cost of producing 10 units of output.											
f. The average total cost of producing 10 units of output.											
The marginal cost when $Q = 10$.											

Q2	You are the manager of a monopoly, and your demand and cost functions are given by										CO4
	$P = 200 - 2Q$ and $C(Q) = 2,000 + 3Q^2$										
a. What price–quantity combination maximizes your firm’s profits?											
b. Calculate the maximum profits.											
c. Is demand elastic, inelastic, or unit elastic at the profit-maximizing price–quantity combination?											
d. What price–quantity combination maximizes revenue?											
e. Calculate the maximum revenues											