

Code : 241306

B.Tech 3rd Semester Exam., 2018

INDUSTRIAL ECONOMICS AND
ACCOUNTING

Time : 3 hours

Full Marks : 70

Instructions :

- (i) The marks are indicated in the right-hand margin.
- (ii) There are **NINE** questions in this paper.
- (iii) Attempt **FIVE** questions in all.
- (iv) Question No. 1 is compulsory.

1. Answer the following as directed (any seven) :
2×7=14

- (a) Normally a demand curve will have which of the following shapes?
- (i) Horizontal
 - (ii) Vertical
 - (iii) Downward sloping
 - (iv) Upward sloping

(Choose the correct option)

(b) Which of the following is an assumption of law of demand?

- (i) Price of the commodity should not change
- (ii) Quantity should not change
- (iii) Supply should not change
- (iv) Income of consumer should not change

(Choose the correct option)

(c) Other things being equal, if a good has more substitutes, its price elasticity of demand is

- (i) larger
- (ii) smaller
- (iii) zero
- (iv) unity

(Choose the correct option)

(d) If elasticity of demand is very low, it shows that the commodity is

- (i) a necessity
- (ii) a luxury
- (iii) has little importance in total budget
- (iv) has no importance in total budget

(Choose the correct option)

(e) There are ____ factors of production.

- (i) two
- (ii) four
- (iii) five
- (iv) six

(Choose the correct option)

(f) The break-even point of a company is that level of sales income which will equal the sum of its fixed cost.

(State true or false)

(g) Break-even analysis is used in 'make or buy' decision.

(State true or false)

(h) At what rate, percent per annum will the simple interest on a sum of money be $\frac{2}{5}$ th of the amount in 10 years?

(i) Find the sum of money that amounts to ₹ 600.88 in 4 years and to ₹ 606.10 in 5 years at the same rate of simple interest.

(j) If the profitability index of a project is 0.85, will its NPV be positive or negative?

2. (a) Cars and petrol are complementary products. What will happen to the demand curve for petrol if the price of cars decreases? Why?

(b) If the elasticity of demand for textbooks is -0.1 and the price of textbooks increases by 20%, how much will the quantity demanded change, and in what direction? Explain your answer. 7+7=14

3. What are the factors of production? Name them and briefly describe them in your own words. 14

4. Consider the projects Alpha and Beta : 14

| Time (Years) | 0 | 1 | 2 |
|-------------------------|-----------|----------|----------|
| CF_{Alpha} (₹) | -4,00,000 | 2,41,000 | 2,93,000 |
| CF_{Beta} (₹) | -2,00,000 | 1,31,000 | 1,72,000 |

You are required to estimate internal rate of return (IRR) of both projects, and comment upon the acceptability of the projects, based on IRR criterion. Which of these projects should be given preference?

(5)

(a) Given that the minimum required rate of return of the company is 18% on all capital investments. This is also the firm's cost of capital.

(b) PVIF for 01 and 02 years is as given below : <http://www.akubihar.com>

| Rate (r) | 16% | 17% | 18% | 19% | 20% |
|-------------|-------|-------|-------|-------|-------|
| PVIF (r, 1) | 0.862 | 0.855 | 0.847 | 0.840 | 0.833 |
| PVIF (r, 2) | 0.743 | 0.731 | 0.718 | 0.706 | 0.694 |

| Rate (r) | 21% | 22% | 23% | 24% | 25% |
|-------------|-------|-------|-------|-------|-------|
| PVIF (r, 1) | 0.826 | 0.820 | 0.813 | 0.806 | 0.800 |
| PVIF (r, 2) | 0.683 | 0.672 | 0.661 | 0.650 | 0.640 |

| Rate (r) | 26% | 27% | 28% | 29% | 30% |
|-------------|-------|-------|-------|-------|-------|
| PVIF (r, 1) | 0.794 | 0.787 | 0.781 | 0.775 | 0.769 |
| PVIF (r, 2) | 0.630 | 0.620 | 0.610 | 0.601 | 0.592 |

| Rate (r) | 31% | 32% | 33% | 34% | 35% |
|-------------|-------|-------|-------|-------|-------|
| PVIF (r, 1) | 0.763 | 0.758 | 0.752 | 0.746 | 0.741 |
| PVIF (r, 2) | 0.583 | 0.574 | 0.565 | 0.557 | 0.549 |

5. Write notes on the following (any two) : $7 \times 2 = 14$

- (a) Monopolistic competition
- (b) Kinked demand curve and its relation with price stability
- (c) Perfect competition

(6)

6. Suppose a firm produces and sells a product with these values :

F = Total fixed costs = ₹ 12,000

v = Variable cost per unit = ₹ 150

P = Selling price per unit = ₹ 400

Find the break-even point in terms of number of units. Also illustrate your response diagrammatically. 14

7. What is implied by imperfect competition? How is pricing done under this condition? 14

8. From the viewpoint of accounting, give a description of the following (any two) : $7 \times 2 = 14$

- (a) Dual aspect concept
- (b) Convention of consistency
- (c) Business entity concept

9. Classify each of the following into Real, Nominal or Personal Accounts, giving brief reason for each : $2 \times 7 = 14$

- (a) Capital Account
- (b) Patents Account
- (c) Bad Debts Account

(7)

(d) Prepaid Rent Account

(e) Automobile Account

(f) Discount Account

(g) Receivables Account

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