

**ECONOMICS FOR ENGINEERS  
(HMTS 3101)**

**Time Allotted : 3 hrs**

**Full Marks : 70**

*Figures out of the right margin indicate full marks.*

*Candidates are required to answer Group A and  
any 5 (five) from Group B to E, taking at least one from each group.*

*Candidates are required to give answer in their own words as far as practicable.*

**Group – A  
(Multiple Choice Type Questions)**

1. Choose the correct alternative for the following: **10 × 1 = 10**
- (i) There is no supply under monopoly because
    - (a) There is only one unique combination between supply(output) and demand(price)
    - (b) There is no unique combination of supply(output) and demand(price)
    - (c) Marginal revenue is relatively higher
    - (d) Marginal cost is relatively higher.
  
  - (ii) GDP(*Gross Domestic Product*) measures
    - (a) Only domestic income
    - (b) Only foreign income
    - (c) Both domestic and foreign income
    - (d) Neither domestic nor foreign income.
  
  - (iii) Which one of the following is a part of *Credit* side entry in trial balance
    - (a) Bill receivable
    - (b) Wages
    - (c) Cash at hand
    - (d) Bills payable
  
  - (iv) Credit creation in an economy may increase , if
    - (a) Depositors start withdrawing money from banks
    - (b) If banks impose restriction on creating new deposits
    - (c) If people start to save more at home
    - (d) If depositors park their money with bank regularly.
  
  - (v) \_\_\_\_\_ includes all transactions related to visible, invisible & capital transfers
    - (a) Balance of trade
    - (b) Balance of payment
    - (c) Balance of accounts
    - (d) Total currency reserves

**B.TECH/AEIE/BT/CE/CHE/CSE/ECE/EE/IT/ME/5<sup>TH</sup> SEM/HMTS 3101 (BACKLOG)/2020**

- (vi) SLM method of depreciation can be computed by  
(a)  $(\text{Salvage value} - \text{Cost of the asset}) / \text{total number of years}$   
(b)  $(\text{Cost of the asset} - \text{Salvage Value}) / \text{total number of years}$   
(c) Both of these  
(d)  $(\text{salvage value} + \text{Cost of asset}) / \text{total number of years}$
- (vii) *Acid test* ratio implies:  
(a)  $(\text{Total Assets} - \text{inventories}) / \text{Total Liabilities}$   
(b)  $(\text{Total Liabilities} - \text{Inventories}) / \text{Total Assets}$   
(c)  $(\text{Current Assets} - \text{inventories}) / \text{Current Liabilities}$   
(d)  $(\text{Current Liabilities} - \text{Inventories}) / \text{Current Assets}$
- (viii) If Net Present Value of a project is positive , it implies  
(a) Project is viable (b) Project is not viable  
(c) Can be both (d) Cannot be decided
- (ix) Willingness to buy a product backed by purchasing power is known as:  
(a) Demand (b) Supply  
(c) Utility (d) Need
- (x) "Debit the receiver and credit the giver" - is golden rule for  
(a) Nominal Account (b) Personal Account  
(c) Real Account (d) Suspense account.

**Group – B**

2. (a) What do you mean by income elasticity of demand and cross price elasticity of demand?  
(b) Find out the key differences between a perfectly competitive market and a monopoly market.

**$(3 \times 2) + 6 = 12$**

3. (a) Define National income and discuss briefly its components.  
(b) Discuss any three measures to control inflation in an economy.

**$(2 + 4) + (3 \times 2) = 12$**

**Group – C**

4. (a) List What is exchange rate for a currency? Highlight the role of World Bank as an adviser, financier and promoter of economic development in developing countries.  
(b) Why in recent times public sector banks are suffering from non-performing asset (NPA) problem and what are its impacts?

**$(2 + 4) + (3 + 3) = 12$**

**B.TECH/AEIE/BT/CE/CHE/CSE/ECE/EE/IT/ME/5<sup>TH</sup> SEM/HMTS 3101 (BACKLOG)/2020**

5. (a) Discuss the functions of International Monetary Fund (IMF) in maintaining the international liquidity.
- (b) Discuss any three features of partnership business.

**6 + (3 × 2) = 12**

**Group – D**

6. (a) From the following information prepare a Cost sheet and find out Total sales :  
Total stock of raw material=3,00,000 ₹  
Manufacturing wages= 50,000 ₹  
Depreciation of plant= 40,000 ₹  
Office rent=10,000 ₹  
Discounts allowed on sales=3000 ₹  
Advertising cost=2000 ₹  
Profit =6,000 ₹.
- (b) Journalize the following transactions:  
(a) Purchased goods for cash -2,00,000 ₹ on 01/02/21  
(b) Purchased stationary for cash – 1000 ₹ on 05/02/21  
(c) Purchased furniture for cash- 30,000 ₹ on 08/02/21  
(d) Sold goods for cash – 1,00,000 ₹ on 09/02/21  
(e) Sold goods to ABC Pvt Ltd.- 16,000₹ on 15/02/21  
(f) Paid salary- 30,000 ₹ on 21/02/21  
(g) Paid rent- 8,000₹ on 24/02/21.

**(5 + 7) = 12**

7. (a) Consider the following information,  
Fixed cost: 4,80,000 ₹  
Variable cost(per unit): 7,000 ₹  
Selling cost/unit: 15,000 ₹  
calculate  
(i) Breakeven level of output and sales.  
(ii) (P/V) ratio.  
(iii) Level of profit ,if output=72 units.
- (b) What is ratio analysis? Discuss any two ratios with their formula.

**6 + 2 + (2 × 2) = 12**

**Group – E**

8. (a) Consider the following information:

Technology	Initial cost(₹)	Annual Income(₹)	Useful life(years)
1	11,00,000	3,00,000	10
2	18,00,000	5,00,000	10
3	15,00,000	4,00,000	10

Choose the best technology based on Net Present Value(NPV) method when rate of return is 20% per year compounding annually.

**B.TECH/AEIE/BT/CE/CHE/CSE/ECE/EE/IT/ME/5<sup>TH</sup> SEM/HMTS 3101 (BACKLOG)/2020**

- (b) A company has purchased a machine for 12,50,000 ₹ ,installation charges 1,50,000 ₹, salvage value from the asset is 2,50,000 ₹ . Determine amount of depreciation and the book value after 3 years using straight line method (SLM) of depreciation.

**7 + 5 = 12**

9. (a) What is capital budgeting. Discuss the need for in the process of decision making
- (b) What do you mean by Weighted Average Cost of Capital (WACC)? What are its components?

**(2 + 4) + (2 + 4) = 12**

<b>Department &amp; Section</b>	<b>Submission Link</b>
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