

**ECONOMICS FOR ENGINEERS  
(HMTS 2101)**

**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) The market having infinite number of buyers and sellers is an example of \_\_\_\_\_.
- (a) Perfect competition (b) Monopolistic competition  
(c) Oligopoly (d) Duopoly
- (ii) Opening stock is
- (a) debited in trading account (b) credited in trading account  
(c) credited in profit and loss account (d) debited in profit and loss account.
- (iii) Debt equity ratio is
- (a) liquidity ratio (b) leverage ratio  
(c) profitability ratio (d) turnover ratio.
- (iv) National income equals to \_\_\_\_\_.
- (a) Gross Domestic Product (b) Gross National Product  
(c) Net National Product at market price (d) Net National Product at factor cost
- (v) Original cost of an asset is Rs.2,00,000, salvage value Rs.60,000, expected life of the asset is 5 years. Amount of depreciation is
- (a) 16,000 (b) 28500 (c) 30,000 (d) 28,000.
- (vi) Sole proprietorship type of business has \_\_\_\_\_.
- (a) Limited liability (b) Unlimited liability  
(c) Perpetual succession (d) Separate legal entity
- (vii) The golden rule for \_\_\_\_\_ account, is 'Debit all expenses and credit all incomes'.
- (a) Nominal (b) Real (c) Deferred (d) Personal
- (viii) Unfavourable impact of inflation is
- (a) Higher profit (b) Gain for borrowers  
(c) Lender will lose (d) Higher production.
- (ix) At Break Even Point, always
- (a) Profit is greater than fixed costs (b) Profit is greater than variable costs  
(c) Profit is zero (d) Profit is equal to fixed cost.

- (x) Secondary function of commercial bank is
- |                             |                           |
|-----------------------------|---------------------------|
| (a) Exchange of currency    | (b) Cash credit           |
| (c) Savings deposit account | (d) Overdraft facilities. |

**Group - B**

2. (a) What is inflation? [(C05)(Remember/LOCQ)]  
(b) What is cost-push inflation? [(C05)(Understand/LOCQ)]  
(c) Briefly discuss how inflation can be controlled. [(C05)(Analyze/IOCQ)]  
**2 + 4 + 6 = 12**
3. (a) What is the distinction between GDP and GNP? [(C05)(Understand/LOCQ)]  
(b) Explain features of monopoly market. [(C05)(Remember/LOCQ)]  
(c) Discuss in brief -Law of diminishing marginal utility. [(C05)(Analyse/IOCQ)]  
**4 + 4 + 4 = 12**

**Group - C**

4. (a) What are the disadvantages of partnership business? [(C05)(Remember/LOCQ)]  
(b) Write short note on World Bank. [(C05)(Understand/LOCQ)]  
(c) How RBI controls inflation? Briefly discuss. [(C04)(Analyze/IOCQ)]  
**4 + 4 + 4 = 12**
5. (a) What are the agency services provided by commercial banks? [(C05)(Remember/LOCQ)]  
(b) What is the basic difference between repo and reverse repo rate? [(C05)(Understand/IOCQ)]  
(c) Mention some of the advantages of international trade. [(C05)(Analyze/IOCQ)]  
**6 + 2 + 4 = 12**

**Group - D**

6. (a) Journalise the following transactions
- 01.01.22. started business by bringing in Rs.1,00,000/- in cash as Capital.
  - 01.01.22. opened Bank account and put in Rs.60,000/- cash into the account.
  - 02.01.22. purchased furniture worth Rs.35,000/- and paid by cheque.
  - 03.01.22. purchased raw materials worth Rs.50,000/- from A Co.Ltd. on credit.
  - 15.01.22. sold finished goods worth Rs.55,000/- to B.Co.Ltd. and received payment by cheque.
  - 31.01.22. paid salaries Rs.20,000/- by cheque. [(C02,C06)(Evaluate/HOCQ)]
- (b) Pick on any three accounting ratios, state their formula of computation and also discuss what each of the ratios highlight. [(C02,C06)(Analyze/HOCQ)]  
**6 + 6 = 12**
7. (a) A company is expecting to have Rs. 25,000 cash in hand on 1st April 2003 and it requires you to prepare an estimate of cash position in respect of three months from April to June 2003, from the information given below:

|          | <i>SalesRs.</i> | <i>Purchase<br/>Rs.</i> | <i>Wages<br/>Rs.</i> | <i>Expenses<br/>Rs.</i> |
|----------|-----------------|-------------------------|----------------------|-------------------------|
| February | 70,000          | 40,000                  | 8,000                | 6,000                   |
| March    | 80,000          | 50,000                  | 8,000                | 7,000                   |
| April    | 92,000          | 52,000                  | 9,000                | 7,000                   |
| May      | 1,00,000        | 60,000                  | 10,000               | 8,000                   |
| June     | 1,20,000        | 55,000                  | 12,000               | 9,000                   |

**Additional Information:**

- (i) Period of credit allowed by suppliers - two months.
  - (ii) 25 % of sale is for cash and the period of credit allowed to customer for credit sale one month.
  - (iii) Delay in payment of wages and expenses one month.
  - (iv) Income Tax Rs. 25,000 is to be paid in June 2003. [(CO6,CO2)(Evaluate/HOCQ)]
- (b) What are the uses of cash flow statement? [(CO6,CO2)(Analyze/IOCQ)]
- 8 + 4 = 12**

**Group - E**

8. (a) The following cash flows are envisaged for a project :-  
(figures in Rs. lakhs.)

| Year               | 0     | 1   | 2   | 3   | 4   | 5   |
|--------------------|-------|-----|-----|-----|-----|-----|
| Cash Flow          | (400) | 70  | 90  | 150 | 160 | 180 |
| Discounting Factor | 1.0   | 0.9 | 0.8 | 0.7 | 0.6 | 0.5 |

Calculate N.P.V., B.C.R. and N.B.C.R. for the project and comment on whether the project is acceptable or not. [(CO3)(Evaluate/HOCQ)]

- (b) The value of an asset at the beginning of year 1 is Rs.1,00,000/-  
The annual rate of depreciation is 10%.  
Based on the Straight line and Reducing balance methods separately, prepare statements showing the annual Depreciation amounts and Written Down Values for the first 3 years. [(CO2, CO6) (Analyse/IOCQ)]
- 7 + 5 = 12**

9. (a) From the following information find the Weighted Average Cost of Capital. Cost of debt capital 5%, preference share capital 10%, equity capital 15% and retained earnings 12% .The capital structure of the firm is as follows:

| Sources           | Amount(Rs) |
|-------------------|------------|
| Debt              | 3,00,000   |
| Preference share  | 2,00,000   |
| Equity share      | 4,00,000   |
| Retained earnings | 1,00,000   |

[(CO2,CO6)(Evaluate/HOCQ)]

- (b) Compare SLM and WDV method of calculation of depreciation. [(CO6)(Analyse/IOCQ)]
- 7 + 5 = 12**

| Cognition Level         | LOCQ  | IOCQ  | HOCQ  |
|-------------------------|-------|-------|-------|
| Percentage distribution | 29.16 | 35.42 | 35.42 |

**Course Outcome (CO):**

After the completion of the course students will be able to

1. Evaluate a project and estimate the total cost of the project
2. Apply financial analytical methodologies to prepare a report regarding the financial performance of an organization
3. Participate actively in an organization's capital budgeting process
4. Provide vital inputs regarding the pricing of a product
5. Apply the knowledge of the interplay of various economic variables and indicators in workplace
6. Provide insight about different accounting concepts and apply broader concepts like costs, revenues, assets, liabilities, capital, profit, investment and interest

\*LOCQ: Lower Order Cognitive Question; IOCQ: Intermediate Order Cognitive Question; HOCQ: Higher Order Cognitive Question