HALDIA INSTITUTE OF TECHNOLOGY

(AN AUTONOMOUS INSTITUTION UNDER MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL)

Paper Code: HSMC-301

Paper Name: Economics for Engineers (Humanities-II)

Time Allotted: 1 Hour 30 Minutes　　　　*Full Marks*: 70

The figures in the margin indicate full marks
Candidates are required to give their answers in their own words as far as practicable

Group – A

(Multiple Choice Type Questions)

1. Choose the correct alternatives from the followings:　　30 x 1 = 30

(i) Economics is the science that deals with - (a) Production of goods and services (b) Consumption of goods and services (c) Both (a) and (b) (d) None of these	CO1	PO11
(ii) As per the “Law of Demand and Supply”, when there is a decrease in the price of a product, (a) The demand for the product increases (b) The supply of the product increases (c) The demand for the product decreases (d) Neither demand nor supply is affected	CO1	PO11
(iii) In decision making process which step should be followed before “Selection of the best alternative”? (a) Implementation (b) Collection of data (c) Evaluation of alternatives (d) Designing alternative courses of action	CO1	PO11
(iv) For estimating the cost of a finished product X having components A, B, C, D, which of the following models can be used? (a) Indexing (b) Power-Sizing (c) Segmenting	CO1	PO11

(d) Learning Curve		
(v) The Learning Curve Rate of four operators A, B, C, and D are 60%, 70%, 80% and 90% respectively. Whose learning ability is the fastest? (a) A (b) B (c) C (d) D	CO1	PO11
(vi) The P/V ratio can be determined by (a) Contribution/Sales (b) Contribution per unit/Selling Price (c) Change in Profit/Change in Sales (d) All of these	CO1	PO11
(vii) Which among the following can be considered under Factory Overhead? (a) Office Manager’s salary (b) Sales Manager’s salary (c) Works Manager’s salary (d) All of these	CO1	PO11
(viii) Factory Cost + Opening Stock of Work-in-Progress – Closing Stock of Work-in-Progress = ? (a) Cost of production (b) Cost of goods manufactured (c) Cost of goods sold (d) Cost of sales	CO1	PO11
(ix) The firm’s financial health is reflected and determined from the …………… of Cash Flow. (a) Volume (b) Direction (c) Timing (d) All of these	CO2	PO11
(x) The following method is the most complicated but sophisticated method of preparing CFS that enables the firm to shorten the forecasting intervals to even weekly or daily basis. (a) ANI Method (b) PBS Method (c) AR Method (d) Both (a) and (b)	CO2	PO11

(xi) Cash Flow Statement does not cover (a) Depreciation (b) Bad Debts (c) Both (a) and (b) (d) Accruals	CO2	PO11
(xii) NPV refers to (a) Net Profit Value (b) Net Present Value (c) Non Profitable Value (d) None of these	CO3	PO11
(xiii) ERR is that rate of interest which equates Present Value of all Cash Outflow to (a) Present Value of all Cash Inflow (b) Future Value of all Cash Outflow (c) Future Value of all Cash Inflow (d) None of these	CO3	PO11
(xiv) Incomes, Expenses, Gains and Losses such as Wages paid, Discount allowed / received, Purchases, Sales, etc. can be classified as - (a) Personal Account (b) Real Account (c) Nominal Account (d) Valuation Account	CO6	PO11
(xv) Which of the following expenses is shown under Trading Account? (a) Direct Expenses (b) Management Expenses (c) Maintenance Expenses (d) Selling & Distribution Expenses	CO6	PO11
(xvi) Which of the following is a Current Asset? (a) Plant & Machinery (b) Stock (c) Goodwill (d) None of these	CO6	PO11
(xvii) . ………………. indicates financial position of an enterprise at a certain date. (a) Assets (b) Liabilities (c) Journal (d) Balance Sheet	CO6	PO11

(xviii) The expression [(Current Assets – Stock)/(Current Liabilities – Bank Overdraft)] is referred as - (a) Quick Ratio (b) Current Ratio (c) Proprietary Ratio (d) Debt-Equity Ratio	CO6	PO11
(xix) Debtors or Creditors Velocity Ratio is a kind of ………………. (a) Balance Sheet Ratio (b) Profit & Loss Ratio (c) Mixed Ratio (d) None of these	CO6	PO11
(xx) Debtor-Turnover Ratio, Stock-Turnover Ratio, and Operating Ratio can be best used for testing - (a) Solvency (b) Liquidity (c) Profitability (d) Management Efficiency	CO6	PO11
(xxi) If A and B are two independent events, then $P(A \cup B)$ is (a) $P(A) \times P(B)$ (b) $P(A) + P(B)$ (c) $P(A) + P(B) – P(A) \times P(B)$ (d) $P(A) \times P(B) – P(A) – P(B)$	CO4	PO11
(xxii) In this method of depreciation calculation, a constant percentage of the book value of the previous period of the asset will be charged as the depreciation amount for the current period. (a) Straight Line Method (b) Declining Balance Method (c) Sum of the Years-Digits Method (d) None of these	CO5	PO11
(xxiii) Identify the correct Accounting Equation. (a) Liabilities – Assets = Capital (a) Liabilities + Assets = Capital (c) Liabilities – Capital = Assets (d) Liabilities + Capital = Assets)	CO6	PO11
(xxiv) Which among the following combination best describes “Overheads”? (a) Direct Material, Indirect Labour, Direct Expenses (b) Indirect Material, Indirect Labour, Indirect Expenses (c) Indirect Material, Direct Labour, Indirect Expenses (d) Direct Material, Direct Labour, Indirect Expenses	CO1	PO11

(xxv) The following can be considered as a source of Cash Inflow under Operating Activities. (a) Sale of equity investments in other business entities (b) Cash proceeds from the sale of own stock (c) Payments to employees (d) Sale of goods or services	CO1	PO11
(xxvi) The Effective Rate of interest for quarterly compounding with given Nominal Rate can be computed as - (a) $i_E = (1 + 4/i_N)^4 – 1$ (b) $i_E = (1 + i_N/4)^4 – 1$ (c) $i_E = (1 – 4/i_N)^4 + 1$ (d) $i_E = (1 – i_N/4)^4 + 1$	CO2	PO11
(xxvii) Which one of the following can be the reason of replacement? (a) Reduction of economic efficiency due to aging. (b) Increasing cost of operation and maintenance. (c) Obligations imposed by the authorities for environmental protection and moral/ethical considerations. (d) All of these	CO1	PO11
(xxviii) Salvage value of an asset is normally considered as the disposal value - (a) At the beginning of the life of the asset. (b) At the mid of the life of the asset when the asset is still operative. (c) At the end of the life of the asset when the asset is no more operative. (d) None of these.	CO5	PO11
(xxix) A Monte Carlo simulation is a model used - (a) To predict the probability of different outcomes when the intervention of random variables is present. (b) To understand the impact of risk and uncertainty in prediction and forecasting models. (c) Both (a) and (b) (d) Only (a)	CO4	PO11
(xxx) Replacement Analysis refers to a systematic assessment, by a business entity on the account of - (a) Need to replace its existing asset(s) which is in service (b) Objective of maintaining or improving its financial performance (c) Taking economic decision regarding retention of the old asset or its replacement with new one. (d) All of these	CO5	PO11

Group – B

((Multiple Choice Type Questions))

2. Choose the correct alternatives from the followings: 20 x 2 = 40

(i) Which among the following regarding managerial decision making is correct? (a) Top Level→Tactical Decision, Middle Level→Strategic Decision, Lower Level→Operational Decision (b) Top Level→Strategic Decision, Middle Level→Tactical Decision, Lower Level→Operational Decision (c) Top Level→Tactical Decision, Middle Level→Operational Decision, Lower Level→Strategic Decision (d) Top Level→Strategic Decision, Middle Level→Operational Decision, Lower Level→Tactical Decision	CO1	PO11
(ii) Consider the following activities of Accounting Cycle and identify their correct sequence. I. Identification of Transactions II. Transactions are posted to Ledgers III. Preparation of Trial Balance IV. Recording of Transactions in Journal V. Preparation of Final Accounts (a) I→II→III→IV→V (b) I→IV→II→III→V (c) I→II→IV→III→V (d) I→II→III→V→IV	CO6	PO11
(iii) The correct sequence of the assets in descending order of their liquidity is - (a) Marketable securities → Cash → Accounts receivable → Inventory →Land & Building → Goodwill (b) Cash → Inventory → Marketable securities → Accounts receivable → Land & Building → Goodwill (c) Cash → Marketable securities → Accounts receivable → Inventory →Land & Building → Goodwill (d) Cash → Marketable securities → Inventory →Accounts receivable →Goodwill → Land & Building	CO6	PO11
(iv) A Company runs a chain of cold storage. In 1995, it installed compressors of a particular cooling capacity at the cost of Rs.5,25,000 per unit. In 2012, the company decided to install 5 new compressors of the same cooling capacity. The price index of compressors of this capacity had increased from 115 (base 1990 = 100) in 1995 to 255 in 2012. What was the approximate cost of new compressors? (a) Rs.58,20,256 (b) Rs.58,20,652 (c) Rs.58,26,052 (d) Rs.58,26,520	CO1	PO11

(v) Growfast Company is evaluating four alternatives single-period investment opportunities whose returns are based on the state of the economy. The possible states of the economy and the associated probability distribution are as follows:	CO1	PO11

State	Fair	Good	Great
Probability	0.2	0.5	0.3

The return for each investment opportunity and each state of the economy are as follows:

Alternative	State of Economy		
	Fair (Rs.)	Good (Rs.)	Great (Rs.)
W	1,000	3,000	6,000
X	500	4,500	6,800
Y	0	5,000	8,000
Z	− 4,000	6,000	8,500

Which alternative investment proposal would you recommend if the expected monetary value criterion is to be employed?

a) W b) X c) Y d) Z

Answer question no. (vi) to (x) from the following problem.

There are two similar plants under the same management. The management desires to merge these two plants. The following particulars are available:	CO1	PO11

	Factory - I	Factory - II
Capacity (%)	100	60
Sales (Rs. Lakh)	300	120
Variable Costs (Rs. Lakh)	220	90
Fixed Costs (Rs. Lakh)	40	20

(vi) The fixed cost of the merged plant is - a) Rs.40 Lakhs b) Rs.20 Lakhs c) Rs.60 Lakhs d) Rs.73 Lakhs		
(vii) The P/V ratio of the merged plant is - a) 20% b) 26% c) 30% d) 36%	CO1	PO11
(viii) The break-even sales of the merged plant is - a) Rs.210 Lakhs b) Rs.290 Lakhs c) Rs.250 Lakhs d) Rs.231 Lakhs	CO1	PO11
(ix) The break-even capacity of the merged plant is - a) 46.15% b) 45.15% c) 44.15% d) 43.15%	CO1	PO11

(x) The profit on working at 75% of the merged capacity is - a) Rs.33.50 Lakhs b) Rs. 35.50 Lakhs c) Rs.37.50 Lakhs d) Rs.39.50 Lakhs	CO1	PO11
(xi) Laspeyres' Index can be calculated as - a) $(\Sigma p_n q_n / \Sigma p_0 q_0) \times 100$ b) $(\Sigma p_n q_0 / \Sigma p_0 q_n) \times 100$ c) $(\Sigma p_n q_0 / \Sigma p_0 q_0) \times 100$ d) $(\Sigma p_n q_0 / \Sigma p_0 q_n) \times 100$	CO4	PO11
(xii) The cost of an asset is Rs. 70,000 which has a service life of 5 years and salvage value of Rs. 10,000. It is expected to produce 6,000 units. If the actual production during 1st year and 2nd year are 1000 units and 1100 units respectively, the accumulated depreciation and book value of the asset at the end of 2nd year are respectively - a) Rs. 10,000 and Rs. 60,000 b) Rs. 11,000 and Rs. 49,000 c) Rs. 10,000 and Rs. 49,000 d) Rs. 21,000 and Rs. 49,000	CO5	PO11
(xiii) Which of the following can be accounted under Selling and Distribution overheads? a) Advertising expenses b) Office furniture c) Works manager's salary d) None of these	CO1	PO11
(xiv) The fixed cost and P/V ratio are Rs. 50,000 and 30% respectively. If the actual sales is 10 times the fixed cost, the Margin of Safety can be calculated as - a) 79.17% b) 66.67% c) 33.33% d) 20.83%	CO1	PO11
(xv) Which of the following statement regarding Cash Flow Statement and Bank Account Statement is correct? a) Cash Flow Statement incorporates only actual cash flows. b) Bank Account Statement incorporates projected cash flows. c) Cash Flow Statement incorporates both actual and projected cash flows. d) Bank Account Statement incorporates both actual and projected cash flows.	CO2	PO11
(xvi) Which of the following statements regarding Financial Accounting and Management Accounting is correct? a) Financial Accounting is used for internal reporting b) Management Accounting is used for internal reporting c) Management Accounting is used for external reporting d) None of these	CO6	PO11

(xvii) Match the following: <table><tr><td>1</td><td>Personal Account</td><td>A</td><td>Plant & Machinery, Inventory, Patent, Cash</td></tr><tr><td>2</td><td>Real Account</td><td>B</td><td>Depreciation, Doubtful debts</td></tr><tr><td>3</td><td>Nominal Account</td><td>C</td><td>Customers, Suppliers, Owner</td></tr><tr><td>4</td><td>Valuation Account</td><td>D</td><td>Purchases, Sales, Income, Expenses</td></tr></table>a) 1-B, 2-A, 3-D, 4-C b) 1-A, 2-B, 3-C, 4-D c) 1-D, 2-A, 3-C, 4-B d) 1-C, 2-A, 3-D, 4-B	CO6	PO11
(xviii) Fines and Penalties payable to the Government or Income Tax Authorities can be classified under - a) Fixed liability b) Current liability c) Contingent liability d) None of these	CO6	PO11
(xix) Expenses of keeping an asset in operative condition is known as ……………………. a) Maintenance cost b) Operating cost c) Capital recovery cost d) None of these	CO5	PO11
(xx) The financial ratio calculated thorough dividing Standard Hours of actual output by Actual Hours of actual output is known as………………………… a) Efficiency Ratio b) Activity Ratio c) Volume Ratio d) Stock Turnover Ratio	CO6	PO11

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Signature of the Paper Setter/Moderator

Answer Key:

Group-A

(i)	(c)	(ii)	(a)	(iii)	(c)	(iv)	(c)	(v)	(a)
(vi)	(d)	(vii)	(c)	(viii)	(b)	(ix)	(d)	(x)	(c)
(xi)	(c)	(xii)	(b)	(xiii)	(c)	(xiv)	(c)	(xv)	(a)
(xvi)	(b)	(xvii)	(d)	(xviii)	(a)	(xix)	(c)	(xx)	(d)
(xxi)	(c)	(xxii)	(b)	(xxiii)	(d)	(xxiv)	(b)	(xxv)	(d)
(xxvi)	(b)	(xxvii)	(d)	(xxviii)	(c)	(xxix)	(c)	(xxx)	(d)

Group-B

(i)	(b)	(ii)	(b)	(iii)	(c)	(iv)	(b)	(v)	(c)
(vi)	(c)	(vii)	(b)	(viii)	(d)	(ix)	(a)	(x)	(c)

(xi)	(c)	(xii)	(d)	(xiii)	(a)	(xiv)	(b)	(xv)	(c)
(xvi)	(b)	(xvii)	(d)	(xviii)	(c)	(xix)	(a)	(xx)	(b)