

KHULNA UNIVERSITY OF ENGINEERING & TECHNOLOGY

Department of Mechanical Engineering

B. Sc. Engineering 1st Year 2nd Term Examination, 2022

Hum 1205

(Economics and Accounting)

Time: 3 Hours

Total Marks: 210

- N.B.:** i) Answer any THREE questions from each section in separate scripts.
ii) Figures in the right margin indicate full marks.
iii) Assume reasonable data if any missing.

SECTION – A

- 1(a) Why do people face trade off? Explain. 10
- 1(b) Construct a hypothetical supply schedule. From that schedule, draw the supply curve and interpret the curve. 10
- 1(c) How does “taste and preferences” and “price of related goods and services” affect the demand of any goods or services? 15
- 2(a) Illustrate the law of diminishing marginal utility numerically as well as graphically. 08
- 2(b) Yesterday the price of CD was Tk. 30 per piece and Karim was willing to buy 5 pieces. Today, the price has gone up to Tk. 40 per piece and Karim is now willing to buy 2 pieces. 10
(i) Estimate Karim’s elasticity of demand for CD.
(ii) Is Karim’s demand for CD elastic or inelastic?
- 2(c) How would you construct the long-run average cost curve? Why is the curve called an envelope curve? Explain the internal economies of scale of production. 17
- 3(a) Explain if firms in the monopoly market are price taker or price maker. 05
- 3(b) $TR = 1400Q - 6Q^2$ 10
 $TC = 1500 + 80Q$
From the above Total Revenue (TR) function and Total Cost (TC) function estimate
(i) The profit function
(ii) The critical value at which profit (π) is maximized and
(iii) The maximum profit.
- 3(c) Consider a project which is being evaluated by a firm that has a cost of capital of 10%. 20
- | | |
|---------------------|-----------------|
| Initial investment: | 10,00,000 Tk. |
| Benefits: | Year 1 2,00,000 |
| | Year 2 2,00,000 |
| | Year 3 3,00,000 |
| | Year 4 3,00,000 |
| | Year 5 3,50,000 |
- According to the benefit cost ratio, evaluate whether the firm should invest in the project or not.
- 4(a) Differentiate between GDP and GNP. How inflation can be combated using fiscal and monetary policy? Explain. 15
- 4(b) In case of economic instability, what actions does the government take? Explain. 10
- 4(c) How can we construct Human Development Index (HDI)? Briefly explain. 10

SECTION – B

5(a) Define accounting. Identify and explain the steps of the accounting cycle. 07

5(b) The following events occurred in “Messrs. ME Enterprise” in November 2023:

November, 01	Started business with BDT 500,000 cash and equipment worth BDT 300,000.
November, 05	Purchased goods for cash BDT 45,000.
November, 10	BDT 7,000 was stolen from the cash box.
November, 15	Cash withdrawal of BDT 10,000 by owner for personal use.
November, 20	ME Enterprise took a loan of BDT 100,000 from Janata Bank, KUET Corporate Branch.
November, 28	Sold goods on account BDT 90,500.
November, 30	Paid utility bill for the month of November BDT 2,500

Required:

- (i) Show the journal entries of the above transactions of November 2023. 14
- (ii) Prepare a tabular analysis of the November transactions. 14

6(a) Who are the users of accounting information? Discuss. 05

6(b) Briefly interpret the principles of accounting. 10

6(c) From the following ledger balances of Bayerische Motoren Werke (BMW) AG, 20 prepare a trial balance as on 30th June, 2023:

Name	€	Name	€
Share capital	150,000	Purchases	45,000
Furniture	50,000	Debtors	30,000
Goodwill	30,000	Salaries	5,000
Return Outward	5,000	Creditors	20,000
General Reserve	25,000	Unearned Service Revenue	3,000
Cash in hand (01-07-22)	6,000	Bad Debt	10,000
Rent Income	5,000	Bank O/D	2,000
Inventory (01-07-22)	30,000	Cash in hand (30-06-23)	10,000
Allowance for bad debt	3,000	Insurance Premium	8,000
Inventory (30-06-23)	35,000	Accumulated Depreciation	5,000

7(a) Explain the concept of prime cost. 05

7(b) Differentiate between cost accounting and financial accounting. 10

7(c) The following information is collected from the book of “BSRM Steels Limited” as on 31 December 2023:

Sales Revenue	2,00,000
Stock Balances as on 01.01.2023:	
Raw Materials	10,000
Work-in-process	7,000
Finished Goods	5,000
Direct Labour	50,000
Raw Materials Purchased	40,000
Other Direct Expenses	3,000
Stock Balance as on 31.12.2023:	
Raw Materials	1,000
Work-in-process	2,000
Finished Goods	3,000
Cash in hand	10,000
Factory Overhead	: 40% of direct labour cost
Administrative Overhead	: 15% of product cost
Selling Overhead	: 5% of sales

Requirement:

- (i) Prepare a Statement of cost.
- (ii) Determine the profit or loss of the company.

Habib PLC
Trial Balance
31 March 2023

Account Titles	L.F.	Debit Tk.	Credit Tk.
Cash in hand (31.03.2023)		19,200	
Capital and Drawings		32,000	100,000
Stock of Goods (01.04.2022)		11,000	
Purchase and sales		35,000	58,000
Sales Returns and Purchase Returns		3,000	2,000
Debtors and Creditors		25,500	22,000
Profit on Sale of Furniture			1,500
Advertisement		7,000	
Salaries		10,000	
Carriage Inward		1,000	
Entertainment Expense		2,300	
Provision for bad debt			1,500
Lease Property (5 years)		30,000	
Office Equipment		9,000	
Total		185,000	185,000

Adjustments:

- (i) Stock of goods (31.03.2023) BDT 20,000.
- (ii) Salary of two months is due.
- (iii) BDT 1,000 of debtors are not collectible.
- (iv) Half of advertisement is to be deferred.
- (v) Charge depreciation on office equipment @ 5%.

Required: Prepare

- (i) A statement of comprehensive income.
- (ii) A statement of changes in equity.
- (iii) A balance sheet.