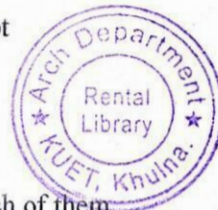


Full Marks: 210

Time 3 hrs.

- N.B. i) Answer any three questions from each section in separate script
ii) Figures in the right margin indicate full marks



Section A

1. a) What are the Fayol's "Principle of management"? Explain each of them. 28
b) Define project according to various institutes. 07
2. a) What are the characteristics of construction project? 06
b) Define project life cycle and show the sequences of project life cycle graphically by Wearne (1995). 15
c) What are the key factors for successful project and unsuccessful project? 14
3. a) Define the following terms: 10
 - i. Public procurement
 - ii. Procuring Entity
 - iii. Approving Authority
 - iv. HOPE
 - v. Procurement Ethics
- b) Define procurement planning. Draw the different steps of the public procurement life cycle in modern business 12
- c) What are the characteristics of procurement management- Describe each of them. 13
4. a) Explain safety precautions in a construction site. 08
b) When should you use the following machine, describe shortly- 16
 - i. Bulldozer
 - ii. Drum Mixer
 - iii. Excavator
 - iv. Concrete pump
- c) List couple of survey equipment with example of use in field. 11

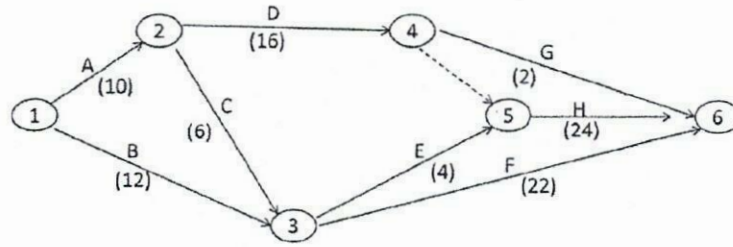
Section B

5. a) Define : 06
 - i. Rate of return
 - ii. MARR
- b) Why Engineering economy is important for an Architect? 07
- c) Suppose you are planning for an office to open in Banani, Dhaka. The contract with land owner calls for you to pay a renovation cost of 25 lacs taka, and an annual rental cost of 18 lacs taka for 10 years from now, additional 2 lacs after that. The contract is valid for 15 years and the land owner has to return 5 lacs taka which is deposited at the very beginning as a caution money. Determine the following equivalent values at 12% per year. 22
 - i. Total present worth in year 0
 - ii. Future worth in year 15
 - iii. Annual series over all 15 years

6. a) For the following Network diagram find out:

18

- i. Total float of each activity
- ii. The critical path



All durations are in days



b) Compare the following three alternatives on the basis of present worth analysis. Use MARR=12% per year.

17

	Project A	Project B	Project C
First cost, BDT	-5,00,000	-4,50,000	-7,00,000
AOC, BDT/year	-70,000	-90,000	-25,000
Salvage value, BDT	50,000	1,00,000	70,000
Life, Years	10	10	10

7. a) Define cash flow. Draw a cash flow diagram for the following transactions. A manager of a company pay 50,000 tk as rent of the office space every month. He has to pay salary of 4,00,000 tk every month to the office staffs. He withdraw 70,000 tk as a salary from this office. This office also has a cost for client entertainment which roughly estimated as 10,000 tk a month.

15

b) For a project, the initial cost is estimated as 1 crore taka. A regular maintenance cost required annually after 5 years of investment which is 2 lacs of taka, increasing by 20,000 taka thereafter. The estimated earning is 50 lacs taka per year and the duration of the project is 15 years. Determine the equivalent present worth of the project at ROR of 10%.

20

8. a) By using C/B ratio with an MARR of 10% per year, choose the better project among the following two projects.

17

	Project A	Project B
Initial cost, \$	10×10^6	25×10^6
Annual O & M, \$/Year	100,000	70,000
Annual Income, \$/Year	700,000	970,000
Annual Dis-benefits, \$/Year	110,00	100,000
Life	∞	∞

b) Find out the optimum crashing cost for the following project which has an indirect cost of 2000 tk/day.

18

Activity	Normal		Crash	
	Duration (day)	Cost (tk)	Duration (day)	Cost (tk)
1-2	10	1000	7	2000
1-3	5	1500	3	3500
2-4	3	500	2	900
2-5	10	1000	6	4000
3-4	6	1000	4	2000
4-5	4	800	3	1000

Khulna University of Engineering & Technology

Department of Architecture

B. Arch 5th Year Backlog Examination, 2022

Course No: Hum 5125 Course Title: Principles of Accounting

Full Marks: 210

Time: 03 Hours

- N.B i) Answer any three questions from each section in separate script
ii) Figures in the right margin indicate full marks



Section-A

1. a) Who are the users of accounting information? Explain. 15
- b) What is accounting cycle? Describe the steps of accounting cycle. 15
- c) What is account? Show the classification of account. 05

2. a) Beverly Crusher is a licensed CPA. During the first month of operations of her business (a sole proprietorship), the following events and transactions occurred. 35

April-2/2022	Invested \$ 32,000 cash and equipment valued at \$14,000 in the business.
April-3/2022	Hired a secretary-receptionist at a salary of \$290 per week payable monthly.
April-4/2022	Purchased supplies on account \$ 700 (debit an asset account).
April-5/2022	Paid office rent of \$ 600 for the month.
April-6/2022	Completed a tax assignment and billed client \$ 1,100 for service rendered. (use service revenue account)
April-10/2022	Received \$ 3,200 advance on a management consulting engagement.
April-12/2022	Received cash of \$ 2,300 for services completed for foreign co.
April-15/2022	Paid insurance expense \$ 110 in cash.
April-17/2022	Paid the secretary-representative \$ 1,160 for the month
April-20/2022	Purchased a new computer for \$ 6,100 in cash.

Required: Journalize above the transactions.

3. a) what is ledger? What purpose is served by ledger? 10
- b) From the following ledger balances of "Rakib traders" prepare a trial balance as on 31 December 2023: 25

Items	BDT	Items	BDT
capital	190,000	Return outward	3,500
10% Mortgage Loan	95,000	Income tax	9,200
Cash in Hand (1-1-23)	100,000	Advance rent received	8,000
Interest on investment	5,000	Cash in hand	154,000
Purchase	250,000	Deferred advertisement	25,000
Discount allowed	4,000	Bad debt	9,500
Sales	467,000	Closing inventory	15,500
Debtors	362,000	Creditors	30,000
Drawing	15,300	Opening inventory	30,000
General Reserve	60,000	Goodwill	10,000
Bank Overdraft	11,500	Depreciation	1,000

4. a) Why both side of trial balance are equal? 10
 b) What are the difference between trial balance and balance sheet/ financial position. 10
 c) What are different between financial accounting and cost accounting? 15

Section-B



5. a) Define cost accounting. Show the classification of cost. 10
 b) Describe the objectives of management accounting. 10
 c) What do you mean by decision making process of management accounting? 15

6. a) Define the concept of CVP analysis. Why is CVP analysis is important to management? 15

b) XYZ company, a manufacturer of chairs, had the following data for 2023: (5x4)
 Sales 2400 units =20
 Sales price 600 Tk per unit
 Variable costs 150 Tk per unit
 Fixed costs 20,000

Instructions: compute-

- (i) What is the contribution margin ratio?
 (ii) What is the break-even point in units and sales?
 (iii) What is the margin of safety in units and sales?
 (iv) If the company wishes to increase its contribution margin by 40% in 2024, by how much will it need to increase its sales if all other factors remain constant?

7. a) From the following particular of Dhaka Ltd. Prepare a cost sheet and show the profit for the period. 30

	Taka
Raw materials used	34,000
Work-in-progress (01-03-2023)	5,200
Work-in-progress (31-03-2023)	6,500
Finished goods (01-03-2023)	13,500
Finished goods (31-03-2023)	8,500
Direct wages 14000 hours @ Tk 2 per hour	
Direct wages	7,200
Factory supplies	4,200
Indirect labor	9,000
Miscellaneous factory expense	7,000
Administrative expense	15,000
Selling expense	10,000
Profit 15% on sales	

- b) What do you mean by ABC analysis? 05

8. a) One of your friends asks for your help concerning the relevance of variable and fixed costs in incremental analysis. Help your friend with this problem. 10

- b) Waltson company produces kitchen cabinets for homebuilders across the western United States. The cost of producing 5000 cabinets is follows: 25

Materials	\$ 500,000
Labour	250,000
Variable Overhead	100,000
Fixed Overhead	400,000
Total =	12,50,000

Waltson also incurs selling expenses of \$20 per cabinet. Wellington Inc. has offered waltson \$165 per cabinet for a special order of 1000 cabinets. The cabinets would be sold to homebuilders in the eastern United States and thus would not conflict with waltson's current sales. Selling expenses per cabinet would be only \$5 per cabinet. Waltson has available capacity to do the work.

Instructions:

- (a) Prepare an incremental analysis for the special order.
- (b) Should waltson accept the special order? Why or why not?

