BUSINESS ANALYSIS

Time allowed – 3 hours
Total marks – 100

[N.B. – The figures in the margin indicate full marks. Questions must be answered in English. Examiner will take account of the quality of language and of the way in which the answers are presented. Different parts, if any, of the same question must be answered in one place in order of sequence.]

Marks

1. (a) ABC Company manufactures seats for automobiles vans, trucks and boats. The company has a number of plants in Bangladesh including a plant in Chittagong. Seat covers are made of upholstery fabric are sewn at the Chittagong plant.

The plant manager also serves as regional production manager for the company. His budget as the regional manager is charged to the plant.

ABC Company has received a bid from an outside vendor to supply the equivalent at the entire annual output of the plant for Taka 42million. Plant Manager was astonished at the low bid from outside because the budget for plant's operating costs for the coming year was set at Taka 48.6 million. If this offer is accepted, the plant will be closed down.

The budget for the plant's operating costs for the coming year is presented below:

Annual budget for the operating costs

Taka		
Materials		16,000,000
Labour		
Direct	13,400,000	
Supervision	800,000	
Indirect plant	3,800,000	18,000,000
Overhead		
Depreciation- equipment	2,600,000	
Depreciation – building	4,200,000	
Pension	3,200,000	
Salaries	1,200,000	
Corporate expenses	3,400,000	14,600,000
Total budgeted costs		

Additional facts regarding the plant's operation are as follows:

- Purchase orders for bulk quantities have been placed with major suppliers to ensure the receipt of sufficient materials for the coming year. If these orders are cancelled as a consequence of the plant closing, termination charges would amount to 25% of the cost of direct materials.
- Approximately 350 employees will lose their jobs if the plant is closed. This include all of the labourers and supervisors, management and staff and other skilled workers classified as indirect plant workers. Nearly all of the production workers would have difficulty in matching the Chittagong plant's base pay of Taka 25 per hour, which is highest in the area. A clause in contract with the union may help some employees'; the company must provide employment assistance and job training to its former employees for 12 months after the plant is closed. The estimated cost to administer this service would be Taka 1.6 mn.
- Some employees would probably choose early retirement because ABC Company has an excellent pension plan. In fact, Taka 1.4 mn of the annual pension expense would continue whether the plant is open or not.
- Plant manager and his regional staff would not be effected by closing of the plant. They would still be responsible for running three plants in other areas.
- If the plants are closed, the company would realize around Taka 4 mn as salvage value for the equipment of the plant. If the plant remains open, there is no plans to make significant investment in new equipment or buildings. The old equipment is adequate for the job and should last indefinitely.

Requirements:

i. Ignoring the costs, identify the advantages to ABC Company of continuing to obtain seat covers for its Chittagong plant. 3

ii. ABC Company plans to prepare a financial analysis that will be used in deciding whether or not to close the plant. Management has asked you to work out the following:
   a. The annual budgeted costs that are relevant to the decision regarding closing the plant. 3
   b. The annual budgeted costs that are not relevant to the decision regarding closing the plant. 3
   c. Any nonrecurring costs that would arise due to the closing of the plant and explain how they would affect the decision. 3

iii. Looking at the data you have prepared in (b) above, should the plant be closed? Show computations to support your answer. 4

iv. Identify any revenues or costs not specifically mentioned in this case that ABC Company should consider before taking decision. 3

(b) You are senior associate with BT Consulting Limited a leading advisory firm in the country. BMTF Group a leading conglomerate and client of BT Consulting, engaged in Textiles, Pharmaceuticals, Foods, Cement and Energy, actively thinking to implement Enterprise Risk Management (ERM) to all entities of the group. Syed H Rahman, managing Director of BMTF recently had a meeting with D S Islam CEO of BT Consulting who has asked you to prepare a report for BMTF group covering the followings:

(i) Main characteristics of Enterprise Risk Management (ERM) applicable across different types of industries and sectors served by BMTF Group. 4

(ii) Framework of Enterprise Risk Management (ERM). 3

(iii) Benefits in the areas of (I) alignment of risk appetite and strategy (II) identification and management of risks across the organisation and (III) providingresponses to multiple risks, if Enterprise Risk Management process is adopted by BMTF group. 4

(c) Business Icons Limited is considering to reduce its commitment to non-core activities and to outsource consequently. The management has asked you as the strategic and business planning manager to identify main management problem such a policy might generate. Prepare a brief note for the management. 3

2. (a) Benny Limited is considering a project with the following cash flows.

Year	Initial Investment Taka'000	Variable Costs Taka' 000	Cash Inflows Taka' 000	Net Cash flows Taka' 000
0	7,000			
1		(2,000)	6,500	4,500
2		(2,000)	6,500	4,500

Cash flows arise from selling 650,000 units at Taka 10 per unit. Benny Limited has a cost of capital of 8%.

Requirements:

(i) Measure the sensitivity of the project to change in variables. Analyse the findings. 8

(ii) Identify weaknesses the approach to sensitivity analysis in the context to Benny Limited. 3

(b) DM Limited is trying to decide whether to invest in a new project. Tow mutually exclusive projects are available, each requiring an investment of Taka 300,000. Projects A is expected to generate cash inflows of Taka 200,000 per year in next two years. It is estimate that the cash inflows associated with project B would be either Taka 180,000 or Taka 220,000(each with 0.5 probability of occurrence) next year. If Taka 180,000 is received in the first year, the cash inflow for the second year is likely to be Taka 150,000 (probability of 0.3), Taka 180,000 (probability of 0.4) and Taka 200,000 (probability of 0.3). In case the first year's cash inflow is Taka 220,000, the second year's likely cash inflow would be Taka 180,000 and Taka 270,000 (each with 0.3 probability), and Taka 220,000 (probability 0.4).

DM limited uses a 14 per cent minimum required rate of return for deciding whether to invest in projects comparable in risk to the ones under consideration.

Requirements:

(i) Calculate the risk adjusted NPV for project A and B. 6

(ii) Identify the best and the worst possible outcomes for B 3

(iii) Which of the projects, if any, would you recommend? Why? 2

(c) The summarised balance sheet of Tiger Limited as March 31(current year) is given below:

Taka 000'

Liabilities	Taka	Assets		Taka
Equity Share Capital (2,000,000 shares @ Taka 100 each)	200,000	Fixed Assets		190,000
Investments	10,000			
11.5% Preference share capital	10,000	Current assets:		
Retained earnings	40,000	Inventories	50,000	
10.5% Debentures	30,000	Debtors	40.000	
Current liabilities	20,000	Bank	10,000	
				100,000
	300,000			300,000

Negotiations for takeover of Target Limited result in its acquisition by Aadi Dhaka Limited. The purchase consideration consists of: (i) Taka 30,000,000 11% debentures of Aadi Dhaka Limited for redeeming the 10.5% debentures of Targets Limited, (ii) Taka 10,000,000 12% preference shares in Aadi Dhaka Limited for the payments of the 11.5% preference shares capital of Tiger Limited, (iii) 2,000,000 equity shares in Aadi Dhaka Limited to be issued at its current market price of Taka 150 and (iv) Aadi Dhaka Limited would meet dissolution expenses (estimated to cost Taka 3,000,000). (v) The following are projected incremental free cash flows (FCFF) expected from acquisition for 6 years:

Taka 000'

Year end	1	45,000
	2	60,000
	3	78,000
	4	90,000
	5	65,000
	6	35,000

(vi) The free cash flow of the target firm are expected to decline at 10 per cent per annum after 6 years.

(vii) After acquisition, investments are to be disposed off; they are expected to realise Taka 12,000,000.

(viii) Current Liabilities are expected to be settled at Taka 19,000,000.

(ix) Given the risk complexion of target firm, cost of capital has been decided at 14 per cent

Requirement:

Advise Aadi Limited regarding financial feasibility of the acquisition. 12

3. Prices on 1 June for sterling traded currency options on the Philadelphia Stock Exchange are shown in the following table:

Sterling option contracts of £31,250 contracts (cents per £)

Exercise price	Calls		Puts	
$/£	September	December	September	December
1.5000	5.55	7.95	0.42	1.95
1.5500	2.75	3.85	4.15	6.30
1.6000	0.25	1.00	9.40	11.20

Prices are quoted in cents per £. On the same date, the September sterling futures contracts (contract size £62,500) is trading at $/£ 1.5390 and the current spot exchange rate is $1.5404-$1.5425.

Radius Inc. a US company, is due to receive sterling £3.75 million from a customer in four months' time at the end of September. The treasurer decides to hedge this receipt using either September £ traded options or September £ futures.

Requirements:

a) Futures 4

b) Options 9

(Illustratingthe results with all three possible option exercise prices). If by the end of September the spot exchange rate moves to (a) 1.4800; (b) 1.5700; (c) 1.6200. Assume that the futures price moves by the same amount as the spot rate and that by the end of September the options contracts are on the last day before expiry.)

c) Briefly discuss the problems of using futures contracts to hedge exchange rate risks. 4

4. The Dhaka Carpet Company has been growing rapidly during the past 5 years. Recently, its commercial bank urged the company to consider increasing its permanent financing. Its bank loan under a line of credit has risen to Tk 5million, carrying interest rate of 8%. The company has been 30 to 60 days late in paying trade creditors.

Discussion with an investment banker have resulted in a decision to raise Tk 10mn at this time. Investment banker has assured that the following alternatives are feasible (ignore floatation cost):

Alternative 1

Sell common stock at Tk 80

Alternative 2

Sell convertible bonds at an 8% coupon, convertible into 10 shares of common stock for each Tk.1000 bond (the conversion price is Tk.100 per share)

Alternative 3

Sell debentures at 8% coupon, each Tk1000 bond carrying 10 warrants to buy common stock at Tk.100

Mr. Jalal the managing director, owns 80% of the common stock and wishes to maintain control of the company. Two hundred thousand shares are outstanding. The following are the extracts of latest financial statements of Dhaka Carpet Company:

Balance Sheet
Taka 000

Total assets	11000	Current liabilities	8,000
		Common stock	2,000
		Retained earnings	1,000
Total	**11,000**	**Total**	**11,000**

Income statement
Taka 000

Sales	22,000	Taxes (40%)	720
COGS	19,800	Net income	1080
EBIT	2,200	Shares outstanding (000)	200
Interest	400	EPS	5.4
EBT	1,800	PE ratio	15
Market price of stock	81		

Requirements:

a. Show the new balance sheet under each alternative. For alternative 2 and 3, show the balance sheet after conversion of the bonds or exercise of the warrants. Assume that half of the funds raised will be used to pay off the bank loan and half to increase total assets. 6

b. Show control position of Mr. Jalal under each alternative, assuming that he does not purchase additional shares. 5

c. Which of the three alternatives would you recommend to Dhaka Carpet Company? 5