

SOUTH EASTERN UNIVERSITY OF SRI LANKA
SECOND EXAMINATION IN BACHELOR OF SCIENCE IN MANAGEMENT &
INFORMATION TECHNOLOGY -2009/2010

SEMESTER – II , FEBRUARY -2012

MIT 2223 - FINANCIAL MODELING AND DECISION MAKING

Answer all questions (Calculators are permitted)

Time : 3 Hours

01) a) What is meant by Financial Modeling and Decision Making? (05Marks)

b) What are the advantages of Electronic Spreadsheets? (05 Marks)

c) Kumar and Mohan Financial Planners have forecasted sales for the first five months of 2012 as shown in the following table.

Months	October 2011	November	December	January 2012	February	March	April	May
Sales(Rs)	375,000	425,000	445,500	395,000	415,300	446,800	412,000	400,900

i) 25% of sales are for cash. Of the remaining sales, 60% are collected in the following month, 20% are collected two months and 20% are collected three months after the sale.

ii) Inventory purchases are equal to 90% of the following month's sales. 40% of purchases are for cash. Of the remaining purchase, 60% of purchases are paid for in the month following the purchase, and the remainders are paid in the following month.

You are request to find the total collections and total payments for the period of January to April 2012 with preparation of cash budget in Excel. Only write down amount of total collections and total payments on your answer script.

(10 marks)

(Total 20 Marks)

02) a) Discuss the importance of financial ratios in the financial analysis of a business organization. (05 Marks)

b) You have been hired as an Analyst for Daffy Duck Food PLC (DDF PLC). DDF PLC is a firm that specializes in the production of freshly imported farm products from India. You have got the following data about your company and their industry.

Ratios	2010	2011	2011 Industry Average
Current Ratio	2.65	2.72	2.90
Inventory Turnover	4.00	4.15	7.00
Fixed Assets Turnover	9.95	10.67	15.20
Average Collection Period	36.84days	37.59days	33.64days
Debt to Equity	1.21	1.41	1.00
Gross Profit Margin	16.55%	17.50%	29.00%
Operating Profit	8.10%	9.58%	25.50%
Net Profit Margin	4.25%	4.75%	20.05%
Return on Total Assets	5.99%	2.68%	13.25%
Return on Equity	13.25%	6.45%	17.20%

Now you have responsible to suggestions about your company performance from comparing with industry average.

You are required to,

i) Use **IF** function to compare your company performance with industry average. Write down IF function and results on your answer script. (06 Marks)

ii) What are the suggestions do you like to provide to your Management Director. (04 Marks)

(Total 15 Marks)

03) a) What is the role of financial forecasting? (04 marks)

b) The past five years' sales and cost of goods sold data of Abans Company Ltd as given below.

Year	Sales (Rs)	Cost of Goods (Rs)
2007	1,745,000	1,545,000
2008	2,289,400	1,992,400
2009	2,825,450	2,214,560
2010	3,254,250	2,565,450
2011	4,055,600	3,265,800

Find with excel:

- i) Forecast the 2012 sales amount with TREND function.
- ii) Create a chart of Cost of Goods vs. Sales(change scale of each axis to same and enter the titles)
- iii) Find the dependent and independent variables.
- iv) Display equation to forecast the dependent variable.
- v) Use the regression tool to check the trend equation statistically significant?
- vi) If our model is useful for forecasting cost of goods sold, forecast the 2012 cost of goods sold.

(16 Marks)

(Total 20 Marks)

04) a) Discuss the concept of fixed and variable cost. (04 Marks)

b) Wood turn Ltd makes television table that sells for Rs.20, 000 per unit. It has variable cost of Rs.12, 000 per unit and incurs fixed cost of Rs.1, 200,000 per period.

Requirements

- i) Define the term 'Break-even'
- ii) Calculate the contribution margin per unit.
- iii) Calculate the operating breakeven point in both units and rupees.
- iv) Calculate the total expenditure and profit.
- v) What is the required output level to make at target profit of Rs.400, 000?

(10 Marks)

c) The financial information of Alba Company is given below,

	2010 "Rs"	2011 "Rs"
Sales	1,000,000	1500000
Earnings before Interest and Taxes	40,000	65,000
Earnings per share	12	15

Calculate:

Operating, Financial and Combined leverage of Alba Company for the year 2011.

(06 Marks)

(Total 20 Marks)

05) a) Briefly explain objectives of Capital Budgets.

(05 Marks)

b) The following information relates to two projects mentions below.

	Projects	
	A	B
Initial Investment cost-Rs	700,000	750,000
Expected Life-Years	5	5
Estimated scrap value- Rs	50,000	30,000
Estimated cash inflows		
Year 1	175000	250000
Year 2	200000	160000
Year 3	350000	175000
Year 4	225000	225000
Year 5	125000	175000

Estimated cost of Capital 15%

You are required to calculate followings for each project.

- i) Net Present value (NPV)
- ii) Internal rate of Return (IRR)
- iii) Which project would be recommended and give reasons for your answer?

(12 Marks)

c) The cash flows are shown in the following table.

Cash Flow	Discount rate
-18000	0%
7800	5%
6850	10%
5100	15%
4100	16%
3250	20%
2140	25%

Find following using Excel built-in function.

- i) Net Present Value (NPV) at different discount rate.
- ii) Draw an NPV profile of the project.
- iii) Find IRR from NPV chart.

(08 Marks)

(Total 25 Marks)