

Eastern University, Sri Lanka
Faculty of Commerce and Management
Master of Business Administration Programme
First Year First Semester Examination in Master of Business Administration
2016/2017(July 2017) (Proper/Repeat)
MBA 1063 Financial Management

Answer All Questions

Time Allowed: 03 Hours

Programmable Calculators are permitted. Use Tables Attached.

An investor deposits Rs.200,000 in a bank account for four years at 12% interest. Find out the amount which he will have in his account if interest is compounded:

- (i) annually (ii) semi-annually (iii) quarterly (iv) monthly

(05 Marks)

An investor has two options to choose from: (a) Rs.500,000 after one year; (b) Rs.800,000 after five years. Assuming a discount rate of (i) 10% and (ii) 20%, which alternative should he choose for?

(05 Marks)

What is the present value of an income stream which provides Rs.50,000 a year for the first five years and Rs.30,000 a year forever thereafter, if the discount rate is 11%?

(05 Marks)

A person buys a motor vehicle with a bank loan of Rs.150,000. An installment of Rs.5,000 is payable to the bank for each of 36 months towards the repayment of loan with interest. What interest rate does the bank charge?

(05 Marks)

(Total 20 Marks)

From the following information of a company, find out the (i) Fixed Cost, (ii) Net Profit, and (iii) Break-Even Point

Contribution/Sales Ratio	40%
Margin of Safety	60%
Sales Volume	Rs.900,000

(06 Marks)

- (b) SJP plc sold 8,000 units of its product in 2015 and 10,000 units in 2016, and incurred a loss of Rs.10,000 and earned Rs.30,000 as profit respectively. The selling price per unit is Rs.100.

Required: Calculate the following:

- (i) The amount of Fixed Cost
- (ii) The Number of Units to break even
- (iii) The number of units to earn a profit of Rs.70,000

(06 Marks)

- (c) BNG plc manufactures and sells four types of products under the brand names of Rex, Ben and Nike. The sales mix in value comprise $33\frac{1}{3}\%$, $41\frac{2}{3}\%$, $16\frac{2}{3}\%$, and $8\frac{1}{3}\%$ of those products respectively. The total annual budgeted sales are Rs.2400,000. Variable cost as a percentage of sales: Rex: 60%, Ben: 65%, Jot: 75%, Nike: 35%. Fixed costs: Rs.562,500

Required:

- (i) Calculate the P/V ratio, the Break-Even Point and Profit for the firm on an overall basis.
- (ii) It is proposed to change the sales mix as Rex: $23\frac{1}{3}\%$, Ben: $13\frac{1}{3}\%$, Jot: $11\frac{2}{3}\%$ and Nike: 5%. Assuming that the total sales per month remaining Rs.2400,000. Assuming that proposal is implemented, calculate the new Break-Even Point and the profit.

(08 Marks)

(Total 20 Marks)

3. (a) FDJ plc is considering two mutually exclusive projects, A and B. Both involve an initial investment of Rs.800,000. Project A will generate an expected cash inflow of Rs.125,000 per year for first two years and Rs.250,000 per year for next three years. Project B will produce an expected cash inflow of Rs.350,000 per year for the first two years and Rs.100,000 for next three years. The company's cost of capital is 12%.

Required:

- (i) Calculate the Discounted Payback period for both projects
- (ii) Calculate the NPV and IRR of each project
- (iii) Which project is to be selected? Support your answer.

(10 Marks)

- (b) The expected cash flows of a project of a company are given below:

Year	0	1	2	3	4	5
Cash flow(Rs.)	(100,000)	25,000	40,000	50,000	40,000	30,000

The company's cost of capital is 15%.

Required: Calculate the Benefit Cost Ratio of the project

(05 Marks)

A machine having five year useful life will cost Rs.200,000. It is expected to provide profits before depreciation of Rs.50,000 each in year 1,2 and 3, and Rs.80,000 each in year 4 and 5. Tax rate is 30%. The machine is provided depreciation on straight line basis.

Required: Calculate the Average Accounting Rate of Return of the project.

(05 Marks)

(Total 20 Marks)

Securities A and B have the following probability distributions of possible returns:

Probability(p_i)	Returns (%)	
	A	B
0.1	-15	-20
0.2	02	05
0.4	05	10
0.2	15	12
0.1	25	30

Required:

- (i) Calculate the Expected Rate of Return for each security
- (ii) Calculate the Standard Deviation of Returns for each security
- (iii) Calculate the Coefficient of Variation
- (iv) Which security is less risky?

(10 Marks)

Securities X and Y have the following probability distributions of possible returns:

Economic Condition	Probability(p_i)	Returns (%)	
		X	Y
Growth	0.2	30	-05
Average	0.3	12	04
Stagnation	0.2	05	15
Decline	0.3	-10	25

Required:

Calculate the Covariance of returns and the Correlation Coefficient between the securities X and Y, and evaluate the possibility of reducing risk level by forming a portfolio investment.

Calculate the Expected Rate of return and the Standard Deviation of returns for the portfolio formed by investing equally in each of the securities.

Determine the minimum risk combination for the portfolio of X and Y.

(10 Marks)

(Total 20 Marks)

5. (a) TNG plc issued a series of bond having face value of Rs.1,000, coupon rate of 12%, and a maturity of 5 years. The coupon payment is payable semiannually.

- (i) What is the value of a bond at the date of issue?
- (ii) What will be the value of a bond if the market interest rate increases to 14% after one year from the issue?
- (iii) What will be the value of a bond if the market interest rate decreases to 10% after two years from the issue?
- (iv) If the bond is sold at Rs.1200 after three years, what is the YTM of the bond?

(10 Marks)

(b) The share of PKM plc will pay a dividend of Rs.3 per share after a year. It is currently selling at Rs.50, and it is estimated that after a year the price will be Rs.55. The required rate of return is 10%.

Required:

- (i) Calculate the Present Value of the share.
- (ii) Should the share be bought?
- (iii) Calculate the return on share if it is bought, and sold after a year

(05 Marks)

(c) A company is currently paying a dividend of Rs.4.00 per share. The dividend is expected to grow at a 15% annual rate for three years, then at 10% rate for the next three years, after which it is expected to grow at a 5% rate forever. The required rate of return of shareholders of the company is 9%.

Required: Calculate the Present Value of the share.

(05 Marks)

(Total 20 Marks)

Present Value and Future Value Tables

Table A-1 Future Value Interest Factors for One Dollar Compounded at k Percent for n Periods: FVIF_{k,n} = (1 + k)ⁿ

Table with 18 columns (interest rates 1% to 30%) and multiple rows (periods 00 to 6446). Values represent future value interest factors for one dollar.

Table A-2 Future Value Interest Factors for a One-Dollar Annuity Compounded at k Percent for n Periods: FVIFA_{k,n} = [(1 + k)ⁿ - 1] / k

Table with 18 columns (interest rates 1% to 30%) and multiple rows (periods 0000 to 64.463). Values represent future value interest factors for a one-dollar annuity.

