

Postal Test Papers_P14_Final_Syllabus 2012

P14 - Advanced Financial Management

Test Paper—III/14/AFM/2012/T-1

Time Allowed-3hours

Full Marks-100

Section A – Financial Markets and Institutions [30 marks]

Question 1

(a) What are the key elements of a well functioning financial system? [3]

(b) What are the differences between:

- (i) Merchant Banks and Commercial Banks
- (ii) Banks and NBFC's
- (iii) 'Hard' and 'soft' infrastructure

[2+2+3=7]

Question 2

(a) What are the duties and obligations of an asset management company (AMC) with reference to management of mutual fund scheme? [4]

(b) Mr. Karan can earn a return of 16 per cent by investing in equity shares on his own. Now he is considering a recently announced equity based mutual fund scheme in which initial expenses are 6.7 per cent and annual recurring expenses are 1.7 per cent. How much should the mutual fund earn to provide Mr. Karan a return of 16 per cent? [3]

(c) The unit price of RSS Scheme of a mutual fund is ₹10. The public offer price (pop) of the unit is ₹10.204 and the redemption price is ₹ 9.80. calculate (i) front-end load, and (ii) Back-end load. [3]

Question 3

(a) What are the features of National level commodity Exchange? [3]

(b) What makes commodity trading attractive? [3]

(c) What are the sources of infrastructure investment in India? [4]

Section B – Financial Risk Management [25 marks]

Question 4

(a) What are the needs for setting up a depository in India? [2]

(b) Define credit risk and mention types of credit risk. [3]

(c) M company LTD and Y Company Ltd both wish to raise US 40M dollar's loan five years. X company Ltd has the choice of issuing fixed rate debt at 7.50% or floating rater debt at Libor + 25 basis points. On the other, Y company Ltd, which has a lower credit rating, can issue fixed rate debt of the same maturity at 8.045% or floating rate at LIBOR + 37 basis points. X Company Ltd prefers to issue floating rate debt with a lower coupon. City bank is in the process of arranging an interest rate swap between these two companies.

X company Ltd negotiates to pay the bank a floating rate of LIBOR flat while the Bank agrees to pay X company Ltd a fixed rate of 7.60%. Y Company Ltd agrees to pay the bank a fixed rate of 7.75% while the bank pays Y company Ltd a floating rate of LIBOR flat.

Postal Test Papers_P14_Final_Syllabus 2012

Requires:

- (i) With a schematic diagram, show how the swap deal can be structured.
- (ii) What are interests saving by each Company?
- (iii) How much would City bank receive?

[4+5+1=10]

Question 5

(a) Write down the criticism of purchasing power parity (PPP) theory.

[4]

(b) The following rates appear in the foreign exchange market:

[1+1+1+1 =4]

Re/1US \$	Spot Rate	2 month forward
	₹48.80/49.05	₹49.5/50.00

- (i) How many dollars should a firm sell to get ₹49.50 million after 2 months?
- (ii) How many rupees is the firm required to pay to obtain US \$ 200000 in the spot market?
- (iii) Assume the firm has US \$ 50000. How many rupees does the firm obtain in exchange for the US \$?
- (iv) Are forward rates at premium or discount? Determine the percentages also?

(c) On 1st April, 3 month interest rate in the US and Germany are 6.5% and 4.5% per annum respectively. The \$/DM spot rate is 0.6560. What would be the forward rate for DM for delivery on 30th June?

[2]

Section C – Security Analysis and Portfolio Management [20 marks]

Question 6

(a) What is Bollinger Bands? What are its features?

[5]

(b) What is the difference between security market line and capital market line?

[3]

(c) What is Du Pont model?

[2]

Question 7

(a) Five Star Ltd., has been specially formed to undertake two investment opportunities. The risk and return characteristics of the two projects are shown below:

Project	P	Q
Expected return	16%	22%
Risk	3%	7%

Five Star plans to invest 80% of its available funds in project P and 20% in Q. The directors believe that the correlation co-efficient between the returns of the projects is +1.0.

Required—

- (i) Calculate the returns from the proposed portfolio of Projects P and Q.
- (ii) Calculate the risk of the portfolio;
- (iii) Suppose the correlation coefficient between P and Q was -1. How should the company invest its funds in order to obtain zero risk portfolios?

[1+2+2=5]

(b) The rates of return on the Security of Company A and Market portfolio for 10 periods are given below:

Period	Return of Security A (%)	Return on Market portfolio (%)

Postal Test Papers_P14_Final_Syllabus 2012

1	18	23
2	20	20
3	24	18
4	26	16
5	18	20
6	-5	8
7	17	-6
8	19	5
9	-7	6
10	20	12

- (i) What is the beta of Security A?
 (ii) What is the characteristic line for security A?

[2+3 = 5]

Section D – Investment Decisions [25 marks]

Question 8

(a) A company is considering two mutually exclusive projects X and Y. Project X costs ₹3,00,000 and Project Y ₹3,60,000. You have been given below the net present value, probability distribution for each project:

Project X		Project Y	
NPV Estimate	Probability	NPV Estimate	Probability
₹		₹	
30,000	0.1	30,000	0.2
60,000	0.4	60,000	0.3
1,20,000	0.4	1,20,000	0.3
1,50,000	0.1	1,50,000	0.2

- (i) Compute the expected net present value of Projects X and Y.
 (ii) Compute the risk attached to each project i.e., Standard Deviation of each probability distribution.
 (iii) Which project do you consider more risky and why?
 (iv) Compute the profitability index of each project.

[2+1+1+1 = 5]

(b) Determine the risk adjusted net present value of the following projects:

	A	B	C
Net cash outlays (₹)	1,00,000	1,20,000	2,10,000
Project life	5 years	5 years	5 years
Annual cash inflow (₹)	30,000	42,000	70,000
Coefficient of variation	0.4	0.8	1.2

The company selects the risk-adjusted rate of discount on the basis of the co-efficient of variation:

Coefficient of variation	Risk adjusted rate of discount	Present value factor 1 to 5 years at risk adjusted rate of discount
0.0	10%	3.791
0.4	12%	3.605

Postal Test Papers_P14_Final_Syllabus 2012

0.8	14%	3.433
1.2	16%	3.274
1.6	18%	3.127
2.0	22%	2.864
More than 2.0	25%	2.689

[5]

Question 9

(a) Define Venture capital Financing. Explain methods of venture capital financing.

[4]

(b) The following is an extract from the Financial Statements of KPN Ltd. (in ₹ Lakhs)

Operating Profit	115
Less: Interest on Debentures	33
Net Operating Income before Tax	82
Less: Income Tax	36
Net Profit after Tax	46
Equity Share Capital (Shares of ₹ 10 each)	200
Reserves and Surplus	100
15% Non-Convertible Debentures (of ₹ 100 each)	220
Total	520

Market Price per Equity Share is ₹12 and per Debenture is ₹ 93.75

Required :

- (i) What is the Earnings per Share?
- (ii) What is the percentage cost of capital to the Company for the Debenture Funds and the Equity?

[2+2=4]

Question 10

A company manufactures 30 items per day. The sale of these items depends upon demand which has the following distribution:

Sales (units)	27	28	29	30	31	32
Probability	0.10	0.15	0.20	0.35	0.15	0.05

The production cost and sale price of each unit are ₹40 and ₹50 respectively. Any unsold product is to be disposed off at a loss of ₹15 per unit. There are penalty of ₹5 per unit if the demand is the demand is not met.

Using the following random numbers estimate total/loss for the company for next 10days: 10,99,65,99,95,01,79,11,16,20

If the company decides to produce 29 items per day, what is the advantage to the company?

[7]

Postal Test Papers_P14_Final_Syllabus 2012

P14 - Advanced Financial Management

Test Paper—III/14/AFM/2012/T-2

Time Allowed-3hours

Full Marks-100

Section A – Financial Markets and Institutions [30 marks]

Question 1

(a) What are the types/categories of NBFC's registered with RBI?

(b) A Mutual Fund made an issue of ₹10,00,000 units of ₹10 each on 01.01.2012. No entry load was charged. It made the following investments:

Particulars	₹
50,000 Equity Shares of ₹100 each @ ₹160	80,00,000
7% Government Securities	8,00,000
9% Debentures (Unlisted)	5,00,000
10% Debentures (Listed)	5,00,000
	98,00,000

During the year, dividends of ₹12,00,000 were received on equity shares. Interest on all types of debt securities was received as and when due. At the end of the year equity shares and 10% debentures are quoted at 175% and 90% respectively. Other investments are quoted at par.

Find out the Net Asset Value (NAV) per unit given that the operating expenses during the year amounted to ₹5,00,000. Also find out the NAV, if the Mutual Fund had distributed a dividend of Re.0.90 per unit during the year to the unit holders.

(c) What are the difference between commodity future & financial future? **[5+5+5 = 15]**

Question 2

(a) What is Wholesale price Index (WPI). What are the difference between the primary market and secondary market?

(b) Ram invested in a Mutual Fund when the Net Asset Value was ₹12.65. 60 Days later the Asset Value per unit of the fund was ₹12.25. In the meantime, Ram had received a cash dividend of Re.0.50 and a Capital Gain distribution of Re.0.30. Compute the monthly return.

(c) What is commercial paper? Explain the silent features of commercial paper? **[5+5+5 = 15]**

Section B – Financial Risk Management [25 marks]

Question 3

(a) What do you mean by Prepayment Risk?

(b) Write the name of five credit rating agencies registered with the SEBI.

(c) Determine the value of option, both call and put, on expiry for the stock of Nirmal Spice Foods (NSF) Ltd. from the following information :-

- Exercise Price - ₹510
- Spot Price on Exercise Date Ranges between ₹495 and ₹525, with interval of ₹5.

Postal Test Papers_P14_Final_Syllabus 2012

Also state what will be the action on the above range of prices for both the options?

[3+4+4+4 = 15]

Question 4

(a) What are the benefits of international Portfolio Investment?

(b) Chandan Pharma Ltd, an American Company, is evaluating an overseas investment in an East Asian Country, where the currency EA. The initial investment for the project is EA 250 Millions. The project cash flows are as follows -

Years	1	2	3	4
Cash Flows (EA Millions)	75	95	125	135

The following additional information is available —

- Inflation Rate in the East Asian Country is 4%.
- Risk free interest rate in US is 10% whereas; in East Asian country is 8%. Both US and East Asian Country have identical real rate of interest. No change in real rate of interest expected during the life of the project.
- Current spot rate is USD 1 = EA 4
- The desired return on the project is 16% in USD terms.

Calculate NPV by discounting annual cash flows in — (a) US Dollars; and (b) EA

[4+3+3 = 10]

Section C – Security Analysis and Portfolio Management [20 marks]

Question 5

(a) Define the different types of risk.

(b) What are the type and objectives of portfolio Management?

(c) The Following data relating to two stocks L and M are made available to you:

Year	Returns on L (%)	Returns on M (%)
2011	12	14
2012	15	19

From the above, you are required to compute:

- Standard deviation of the return from stocks L and M;
- Co-variance of returns from the two stocks;
- Correlation coefficient between the returns of the two stocks L and M;
- Expected return of a portfolio comprising of 30% of L and 70% of M; and
- Risk of a portfolio consisting of L and M in the same proportion.

[4+6+(2 x 5) = 20]

Section D – Investment Decisions [25 marks]

Attempt any one from Question No 6 and Question No 7

Question 6

(a) Write short notes on (any two)

[4+4 = 8]

- Effects of Inflation on cash Flows
- Effects of Inflation on Discount Rate

Postal Test Papers_P14_Final_Syllabus 2012

(iii) Decision Tree Analysis

(b) Green Builders has been approached by a foreign embassy to build for it a block of six flats to be used as guest houses. As per the terms of the contract, the foreign embassy would provide Green Builders the plans and the land costing ₹ 25 lakhs. Green Builders would build the flats at their own cost and lease them to the foreign embassy for 15 years. At the end of which the flats will be transferred to the foreign embassy for a nominal value of ₹ 8 laks. Green Builders estimated the cost of constructions as follows:

Area per flat, 1,000 sq. Feet; Construction cost, ₹ 400 per sq. feet; Registration and other costs, 2.5 percent of cost of construction; Green Builders will also incur ₹ 4 lakhs each in years 14 and 15 towards repairs.

Green Builders proposes to change the lease rentals as follows:

Years	Rentals
1-5	Normal
6-10	120 percent of normal
11-15	150 percent of normal

Green Builders present tax rate averages at 35 percent which is likely to be the same in future. The full cost of construction and registration will be written off over 15 years at a uniform rate and will be allowed for tax purposes.

You are required to calculate the normal lease rental per annum per flat. For your exercise you may assume: (a) Minimum desired return of 10 percent, (b) Rentals and repairs will arise on the last day of the year, and , (c) Construction, registration and other costs will be incurred at time=0. [7]

Question 7

(a) Explain Emerging issues in outward FDI. [7]

(b) The total market value of the equity share of a Company is ₹ 80,00,000 and the total value of the debt is ₹ 60,00,000. The treasurer estimate that the beta of the stock is currently 1.5 and that the expected risk premium on the market is 12 per cent. The treasury bill rate is 8 per cent.

Required:

- (i) What is the beta of the Company's existing portfolio of assets?
- (ii) Estimate the Company's Cost of capital and the discount rate for an expansion of the company's present business. [2+2=4]

(c) The Textile Manufacturing Company Ltd., is considering one of two mutually exclusive proposals, Projects M and N, which require cash outlays of ₹ 8,40,000 and ₹ 8,75,000 respectively. The certainty-equivalent (C.E) approach is used in incorporating risk in capital budgeting decisions. The current yield on government bonds is 7% and this is used as the risk free rate. The expected net cash flows and their certainty equivalents are as follows:

Year-end	Project M		Project N	
	Cash Flow ₹	C.E.	Cash Flow ₹	C.E.
1	4,50,000	0.8	4,50,000	0.9
2	5,00,000	0.7	4,50,000	0.8
3	5,00,000	0.5	5,00,000	0.7

Present value factors of Re. 1 discounted at 7% at the end of year 1, 2 and 3 are 0.9346, 0.8734 and 0.8163 respectively. Which the project should be accepted? [4]

Question 8

(a) What are the difference between Factoring and securitization?

(b) Khan Ltd. Issued 10,000, 10% Debentures of ₹ 100 each, redeemable in 10 years time at 10% premium. The cost of issue was ₹25,000. The Company's Income Tax Rate is 35%. Determine the cost of debentures if they were issued (a) at par (b) at premium of 10% and (c) at a discount of 10%. **[5+5 = 10]**

