MODEL TEST PAPER - 2

FINAL COURSE: GROUP – I

PAPER – 2: ADVANCED FINANCIAL MANAGEMENT

Time Allowed – 3 Hours **Maximum Marks – 100**

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises Case Scenario based Multiple Choice Questions (MCQs)*
3. *Part II comprises questions which require descriptive type answers.*

PART I – Case Scenario based MCQs (30 Marks)

Part I is compulsory.

Case Scenario I

P Ltd. is studying the possible acquisition of Q Ltd. which is also in same industry by way of merger. The following data are available:

Firm	After-tax earnings	No. of equity shares	Market price per share	Book Value Per share
P Ltd.	₹ 10,00,000	2,00,000	₹ 75	₹ 210
Q Ltd.	₹ 3,00,000	50,000	₹ 60	₹ 105

The merger shall be gone through by exchange of equity shares and the exchange ratio is set according to different weights assigned to different basis as mentioned below :-

EPS	50%
Market Price	25%
Book Value	25%

1. The swap ratio based on given weights shall be.....
   (a) 0.825
   (b) 0.925
   (c) 0.952
   (d) 0.752
2. Based on swap ratio as per assigned weights the total number of shares issued by P Ltd to Q Ltd. shall be.....

(a) 46250

(b) 41250

(c) 47600

(d) 37600

3. Post merger the EPS of the P Ltd. shall be.....

(a) 5.39

(b) 5.25

(c) 5.28

(d) 5.47

4. In case P Ltd. wants to be sure that its EPS is not diminished by the merger, the relevant exchange ratio to achieve the same objective should be.....

(a) 0.33

(b) 1.20

(c) 1.30

(d) 1.10

5. In case Q Ltd. wants to be sure that its EPS is not diminished by the merger, the relevant exchange ratio to achieve the same objective should be.....

(a) 0.33

(b) 1.20

(c) 1.30

(d) 1.10

6. The type of Merger of P Ltd. & Q Ltd. shall be ……..

(a) Horizontal Merger

(b) Vertical Merger

(c) Congeneric Merger

(d) Reverse Merger **(6 x 2 = 12 Marks)**

Case Scenario II

Mr. A is interested in investing ₹ 1,00,000 for which he is considering following three alternatives:

(i) Invest ₹ 1,00,000 in Mutual Fund X (MFX)

(ii) Invest ₹ 1,00,000 in Mutual Fund Y (MFY)

(iii) Portfolio - Invest ₹ 60,000 in Mutual Fund X (MFX) and ₹ 40,000 in Mutual Fund Y (MFY)

Average annual return earned by MFX and MFY is 12% and 11% respectively. Risk free rate of return is 8% and market rate of return is 10%.

Covariance of returns of MFX, MFY and market portfolio Mix are as follow:

		MFX	MFY	Mix
MFX	4.400	4.300	3.370	
MFY	4.300	4.200	2.800	
Mix		3.370	2.800	4.200

Based on the above information answer the following questions:

7. Standard Deviation of MFX is ……

   (a) 2.0736

   (b) 2.0976

   (c) 1.8358

   (d) 2.0494

8. Portfolio return would be ……..

   (a) 11.00%

   (b) 12.00%

   (c) 11.50%

   (d) 11.60%

9. Based on Standard Deviation, the optimum investment for Mr. A would be …….

   (a) Portfolio

   (b) All investment in MFX

(c) All investment in MFY

(d) Both MFY and mix are indifferent

10. Standard Deviation of Market Mix Portfolio is ……

(a) 2.0736

(b) 2.0976

(c) 1.8358

(d) 2.0494

11. Beta of MFY will be approximately……

(a) 1.024

(b) 1.048

(c) 1.065

(d) 0.667 **(5 x 2 = 10 Marks)**

Case Scenario III

X and Y are two friends. Since Y has earned a lot of profit from trading in financial derivative market, X is also considering speculating on Gamma Corporation's shares which is currently trading at ₹ 700 per share through taking positions in options in stocks of same company. Accordingly, X took following contract positions in the options on Gama Corporation's stock:

(i) Purchasing one contract of 2-month call option with a premium of ₹ 35 and an exercise price of ₹ 750.

(ii) Purchasing one contract of 2-month put option with a premium of ₹ 25 and an exercise price of ₹ 600.

After some time, trading in Option Market and understanding the nitty-gritties of same, X being CEO in an organization advised his team to implement the concept of Financial Options in the Capital Budgeting decisions called 'Real Option'.

Based on the above information answer the following questions:

12. Assuming that the contract size of each option contract is 100 and the price of Gama Corporation's share after two months falls to ₹ 550, the net pay-off of X will be……

(a) ₹ 1,000 loss

(b) ₹ 1,000 profit

(c) ₹ 3,000 profit

(d) ₹ 3,000 loss

13. The per share price of Gama Corporation's stock after 2 months at which X shall be at Break Even is…..

(a) ₹ 540

(b) ₹ 600

(c) ₹ 625

(d) ₹ 785

14. Which of the following statement is false regarding Real Options?

(a) Real Options methodology is an approach to capital budgeting that relies on Option Pricing theory to evaluate projects.

(b) Real options approach is intended to supplement, and not replace, capital budgeting analyses based on standard Discounted Cash Flow (DCF) methodologies.

(c) Real options are different from financial options as their periods start from the end of 1st year and are higher than financial options.

(d) Real options are normally traded in the market and are priced.

15. Which of the following is not a necessary condition to introduce Commodity Derivatives?

(a) a commodity should be durable, and it should be possible to store it;

(b) units must be heterogenous;

(c) the commodity must be subject to frequent price fluctuations with wide amplitude;

(d) supply and demand must be at large. **(4 x 2 = 8 Marks)**

PART – II DESCRIPTIVE QUESTIONS

Question No.1 is compulsory. Candidates are required to answer any four questions from the remaining five questions.

Working notes should form part of the answers.

Maximum Marks – 70 Marks

1. (a) KLM Ltd., is considering taking up one of the two projects-Project-K and Project-So Both the projects having same life require equal investment of ₹ 80 lakhs each. Both are estimated to have almost the same yield. As the company is new to this type of business, the cash flow arising from the projects cannot be estimated with certainty. An attempt was therefore, made to use probability to analyse the pattern of cash flow from other projects during the first year of operations. This pattern is likely to continue during the life of these projects. The results of the analysis are as follows:

Project K		Project S	
Cash Flow (in ₹)	**Probability**	**Cash Flow (in ₹)**	**Probability**
11	0.10	09	0.10
13	0.20	13	0.25
15	0.40	17	0.30
17	0.20	21	0.25
19	0.10	25	0.10

Required:

(i) Calculate variance, standard deviation and co-efficient of variance for both the projects.

(ii) Which of the two projects is riskier? **(6 Marks)**

(b) In International Monetary Market an international forward bid for December, 15 on pound sterling is $ 1.2816 at the same time that the price of IMM sterling future for delivery on December, 15 is $ 1.2806. The contract size of pound sterling is £ 62,500. How could the dealer use arbitrage in profit from this situation and how much profit is earned? **(4 Marks)**

(c) State the difference between Peer- to-peer lending and Crowdfunding? **(4 Marks)**

2. (a) EFD Ltd. is an export business house. The company prepares invoice in customers' currency. Its debtors of US$. 10,000,000 is due on April 1, 2015.

Market information as at January 1, 2015 is:

Exchange rates US$/INR		**Currency Futures US$/INR**	
Spot	0.016667	Contract size: ₹ 24,816,975	
1-month forward	0.016529	1-month	0.016519
3-months forward	0.016129	3-month	0.016118
	Initial Margin	**Interest rates in India**	
1-Month	₹ 17,500	6.5%	
3-Months	₹ 22,500	7%	

On April 1, 2015, the spot rate US$/INR is 0.016136 and currency future rate is 0.016134.

Which of the following methods would be most advantageous to EFD Ltd?

(i) Using forward contract

(ii) Using currency futures

(iii) Not hedging the currency risk **(10 Marks)**

(b) Financial Risk can be evaluated from different points of views. Explain. **(4 Marks)**

3. (a) Following Financial data are available for PQR Ltd. for the year 2008:

	(₹ in lakh)
8% debentures	125
10% bonds (2007)	50
Equity shares (₹ 10 each)	100
Reserves and Surplus	300
Total Assets	600

Assets Turnovers ratio	1.1
Effective interest rate	8%
Effective tax rate	40%
Operating margin	10%
Dividend pay-out ratio	16.67%
Current market Price of Share	₹ 14
Required rate of return of investors	15%

You are required to:

(i) Draw income statement for the year

(ii) Calculate its sustainable growth rate of earnings

(iii) Calculate the fair price of the Company's share using dividend discount model, and

(iv) What is your opinion on investment in the company's share at current price? **(10 Marks)**

(b) Explain the various types of risks in any Securitisation transaction.

(4 Marks)

4. (a) Eagle Ltd. reported a profit of ₹ 77 lakhs after 30% tax for the financial year 2011-12. An analysis of the accounts revealed that the income included extraordinary items of ₹ 8 lakhs and an extraordinary loss of ₹10 lakhs. The existing operations, except for the extraordinary items, are expected to continue in the future. In addition, the results of the launch of a new product are expected to be as follows:

	₹ In lakhs
Sales	70
Material costs	20
Labour costs	12
Fixed costs	10

You are required to:

Calculate the value of the business, given that the capitalization rate is 14%. **(6 Marks)**

(b) State the challenges to the Efficient Market Theory. **(4 Marks)**

Either

(c) State the key decisions falling within the scope of financial strategy.

Or

What do you mean by CDSs? List the main purposes for which CDS can be used. (**4 Marks)**

5. (a) A multinational company is planning to set up a subsidiary company in India (where hitherto it was exporting) in view of growing demand for its product and competition from other MNCs. The initial project cost (consisting of Plant and Machinery including installation) is estimated to be US$ 500 million. The net working capital requirements are estimated at US$ 50 million. The company follows straight line method of depreciation. Presently, the company is exporting two million units every year at a unit price of US$ 80, its variable cost per unit being US$ 40.

The Chief Financial Officer has estimated the following operating cost and other data in respect of proposed project:

(i) Variable operating cost will be US $ 20 per unit of production;

(ii) Additional cash fixed cost will be US $ 30 million p.a. and project's share of allocated fixed cost will be US $ 3 million p.a. based on principle of ability to share;

(iii) Production capacity of the proposed project in India will be 5 million units;

(iv) Expected useful life of the proposed plant is five years with no salvage value;

(v) Existing working capital investment for production & sale of two million units through exports was US $ 15 million;

(vi) Export of the product in the coming year will decrease to 1.5 million units in case the company does not open subsidiary

company in India, in view of the presence of competing MNCs that are in the process of setting up their subsidiaries in India;

(vii) Applicable Corporate Income Tax rate is 35%, and

(viii) Required rate of return for such project is 12%.

Assuming that there will be no variation in the exchange rate of two currencies and all profits will be repatriated, as there will be no withholding tax, estimate Net Present Value (NPV) of the proposed project in India.

Present Value Interest Factors (PVIF) @ 12% for five years are as below:

Year	1	2	3	4	5
PVIF	0.8929	0.7972	0.7118	0.6355	0.5674

(10 Marks)

(b) Which position on the index future gives a speculator, a complete hedge against the following transactions:

(i) The share of Right Limited is going to rise. He has a long position on the cash market of ₹ 50 lakhs on the Right Limited. The beta of the Right Limited is 1.25.

(ii) The share of Wrong Limited is going to depreciate. He has a short position on the cash market of ₹ 25 lakhs on the Wrong Limited. The beta of the Wrong Limited is 0.90. **(4 Marks)**

6. (a) Mr. A will need ₹ 1,00,000 after two years for which he wants to make one time necessary investment now. He has a choice of two types of bonds. Their details are as below:

	Bond X	**Bond Y**
Face value	₹ 1,000	₹ 1,000
Coupon	7% payable annually	8% payable annually
Years to maturity	1	4
Current price	₹ 972.73	₹ 936.52
Current yield	10%	10%

Advice Mr. A whether he should invest all his money in one type of bond or he should buy both the bonds and, if so, in which quantity? Assume that there will not be any call risk or default risk. **(8 Marks)**

(b) Suppose a dealer quotes 'All-in-cost' for a generic swap at 8% against six month LIBOR flat. If the notional principal amount of swap is ₹ 5,00,000.

(i) Calculate semi-annual fixed payment.

(ii) Find the first floating rate payment for (i) above if the six month period from the effective date of swap to the settlement date comprises 181 days and that the corresponding LIBOR was 6% on the effective date of swap.

In (ii) above, if the settlement is on 'Net' basis, how much the fixed rate payer would pay to the floating rate payer?

Generic swap is based on 30/360 days basis. **(6 Marks)**