MODEL TEST PAPER - 7

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

AES Ltd. wants to acquire DNF Ltd. and has offered a swap ratio of 1:2 (0.5 shares for every one share of DNF Ltd.). Following information is provided:

	AES Ltd.	DNF Ltd.
Profit after tax	₹ 36,00,000	₹ 7,20,000
Equity shares outstanding (Nos.)	12,00,000	3,60,000
PE Ratio	10 times	7 times
Market price per share	₹ 30	₹ 14

From the information given above, choose the correct answer to the following questions:

1. The number of equity shares to be issued by AES Ltd. for acquisition of DNF Ltd. would be……

   (a) 1,68,000

   (b) 1,80,000

   (c) 2,40,000

   (d) 3,00,000

2. The EPS of AES Ltd. after the acquisition would be……

   (a) ₹ 2

   (b) ₹ 3

   (c) ₹ 3.13

(d) ₹ 4.00

3. The equivalent earnings per share of DNF Ltd. would be……..

(a) ₹ 1

(b) ₹ 1.50

(c) ₹ 1.57

(d) ₹ 2.00

4. If AES Ltd. PE multiple remains unchanged then its expected market price per share after the acquisition would be…….

(a) ₹ 14

(b) ₹ 30

(c) ₹ 31.30

(d) ₹ 40.00

5. If AES Ltd. PE multiple remains unchanged then, the market value of the merged firm would be…….

(a) ₹ 4,14,00,000

(b) ₹ 4,88,28,000

(c) ₹ 3,75,60,000

(d) ₹ 4,31,94,000 **(5 x 2 = 10 Marks)**

Case Scenario II

On 1 October 2023 Mr. X an exporter enters into a forward contract with a BNP Bank to sell US$ 1,00,000 on 31 December 2023 at ₹ 85.40/$. However, due to the request of the importer, Mr. X received the amount on 28 November 2023. Mr. X requested the bank the take delivery of the remittance on 30 November 2023 i.e., before due date. The inter-banking rates on 28 November 2023 was as follows:

Spot	₹ 85.22/85.27
One Month Premium	10/15

Note: (1) Consider 365 days in a year.

(2) Prevailing Prime Lending Rate is 12%

Based on above case scenario, choose the most appropriate answer of the following:

6. The bank may accept the request of customer of delivery before due date of forward contract provided the customer is ready to bear the loss if any consisting of……

   (a) Swap Difference

   (b) Interest on Outlay of Fund

   (c) Swap Difference Plus Interest on Outlay of Fund

   (d) Fixed Charges Plus Swap Difference and Interest on Outlay of Fund

7. In case of early delivery bank shall charge interest on outlay of fund at a rate not less than……..

   (a) 8%

   (b) 10%

   (c) 12%

   (d) 18%

8. Swap Difference for US$ 1,00,000 is……..

   (a) ₹ 5,000

   (b) ₹ 20,000

   (c) ₹ 18,000

   (d) ₹ 8,000

9. Interest on outlay of funds shall be approximately…….

   (a) ₹ 92 payable by X

   (b) ₹ 183 payable by X

   (c) ₹ 183 payable by Bank

   (d) ₹ 122 payable by Bank

10. Net inflow to Mr. X is approximately……..

    (a) ₹ 85,42,183

    (b) ₹ 85,20,000

    (c) ₹ 85,19,817

(d) ₹ 85,40,000 **(5 x 2 = 10 Marks)**

Case Scenario III

A US parent company has subsidiaries in France, Germany, UK and Italy. The amounts due to and from the affiliates is converted into a common currency viz. US dollar and entered in the following matrix.

Inter Subsidiary Payments Matrix **(US $ Thousands)**

		Paying affiliate				
		France	Germany	UK	Italy	**Total**
Receiving affiliate	France	---	80	120	200	400
	Germany	120	---	80	160	360
	UK	160	120	---	140	420
	Italy	200	60	120	---	380
	Total	480	260	320	500	**1560**

The treasurer of US Parent company is suggesting that by applying Multilateral Netting system the company can save a lot of transfer/ exchange costs. The company's Board agreed with Treasurer's proposal.

From the above case scenario, choose the most appropriate answer of following MCQs.

11. Before applying Multilateral Netting it is necessary to apply…….

    (a) Unilateral Netting

    (b) Bilateral Netting

    (c) Multilateral Netting

    (d) Interest Rate Swapping

12. Through Multinational Netting these transfers will be reduced to ……

    (a) $ 50,000

    (b) $ 100,000

    (c) $ 150,000

    (d) $ 200,000

13. The Net Payment/ Net Receipts for France after netting off shall be…….

    (a) Net Receipt $ 40,000

    (b) Net Payment $ 80,000

    (c) Net Payment $ 40,000

    (d) Net Receipt $ 80,000

14. The Net Payment/ Net Receipts for Italy after netting off shall be…….

    (a) Net Receipt $ 60,000

    (b) Net Payment $ 120,000

    (c) Net Payment $ 60,000

    (d) Net Receipt $ 120,000

15. Suppose if the transfer charges are 0.01% of the amount transferred then by applying multilateral netting techniques there will be reduction in overall cost of transfer by ……..

    (a) US $ 136

    (b) US $ 156

    (c) US $ 1,360

    (d) US $ 1,560 **(5 x 2 = 10 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) You as an investor had purchased a 4-month call option on the equity shares of ABC Ltd. of ₹ 10, of which the current market price is ₹ 660 per share and the exercise price ₹ 750. You expect the price to range between ₹ 600 to ₹ 950. The expected share price of ABC Ltd. and related probability is given below:

Expected Price (₹)	600	700	800	900	950
Probability	0.05	0.20	0.50	0.10	0.15

Evaluate the following:

(i) Expected Share price at the end of 4 months.

(ii) Value of Call Option at the end of 4 months if the exercise price prevails.

(iii) In case the option is held to its maturity, estimate expected value of the call option? **(6 Marks)**

(b) Share of Beta Ltd. is being quoted at a Price-Earning ratio of 10 times. In the coming year the company is expected to retain ₹ 10 per share which is 45% of its Earning Per Share.

You are required to evaluate:

(i) The cost of equity to the company if the market expects a growth rate of 10% p.a.

(ii) If the anticipated growth rate is 12% per annum, calculate the indicative market price with the same cost of capital.

(4 Marks)

(c) Why is there a need for succession planning in business? Explain.

(4 Marks)

2. (a) On January 28, 2023, an importer customer requested a Bank to remit Singapore Dollar (SGD) 2,500,000 under an irrevocable Letter of Credit (LC). However, due to unavoidable factors, the Bank could affect the remittances only on February 4, 2023. The inter-bank market rates were as follows:

		January 28, 2023	**February 4, 2023**
US$ 1=		₹ 80.91/80.97	₹ 80.85/80.90
GBP £ 1	=	US$ 1.7765/1.7775	US$ 1.7840/1.7850
GBP £ 1	=	SGD 2. 1380/2.1390	SGD 2.1575/2.1590

The Bank wishes to retain an exchange margin of 0.125% on ₹/ SGD.

Required:

Estimate how much does the customer stand to gain or lose due to the delay?

(Note: Calculate the rate in multiples of 0.0001) **(6 Marks)**

(b) Bank A enter into a Repo for 14 days with Bank B in 10% Government of India Bonds 2028 @ 5.65% for ₹ 8 crore. Assuming that clean price (the price that does not have accrued interest) be ₹ 99.42 and initial Margin be 3% and days of accrued interest be 272 days.

You are required to calculate:

(i) Dirty Price

(ii) Approximate Repayment amount at maturity.

Note: (1) Consider 360 days in a year.

(2) Round off calculations upto 2 decimals points. **(4 Marks)**

(c) What are the parameters to identify currency risk? List out the ways to minimize such risk. **(4 Marks)**

3. (a) Suppose that economy A is growing rapidly, and you are managing a global equity fund and so far you have invested only in developed-country stocks only. Now you have decided to add stocks of economy A to your portfolio. The table below shows the expected rates of return, standard deviations, and correlation coefficients (all estimates are for aggregate stock market of developed countries and stock market of Economy A).

	Developed Country Stocks	**Stocks of Economy A**
Expected rate of return (annualized percentage)	20	30
Risk [Annualized Standard Deviation (%)]	16	30
Correlation Coefficient (ρ) between stock of two economies	0.30	

Assuming the risk-free interest rate to be 6%, you are required to determine:

(i) What percentage of your portfolio should you allocate to stocks of Economy A if you want to increase the expected rate of return on your portfolio by 1%?

(ii) What will be the standard deviation of your portfolio assuming that stocks of Economy A are included in the portfolio as calculated above?

(iii) Also show how well the Fund will be compensated for the risk undertaken due to inclusion of stocks of Economy A in the portfolio? (**6 Marks)**

(b) An investor has two portfolios known to be on minimum variance set for a population of three securities X, Y and Z having below mentioned weights:

	WX	**WY**	**WZ**
Portfolio A	0.30	0.40	0.30
Portfolio B	0.20	0.50	0.30

Calculate the weight for each stock for a portfolio constructed by investing ₹ 10,00,000 in portfolio A and ₹ 6,00,000 in portfolio B.

(4 Marks)

(c) Either

Briefly explain Blockchain transaction. List the risks associated with Blockchain. **(4 Marks)**

(c) **Or**

Explain briefly the financial measures that help in evaluation of performance of any Mutual Fund. (**4 Marks)**

4. (a) Your client is holding the following securities:

Particulars of Securities	**Cost**	**Dividends/Interest**	**Market price at the end of holding period**	**Beta**
	₹	**₹**	**₹**	
Equity Shares:				
G Ltd.	20,000	1,450	19,600	0.6

S Ltd.	30,000	1,000	30,400	0.8
B Ltd.	28,000	1,400	32,000	0.6
GOI Bonds	72,000	5,060	71,980	0.01

Evaluate:

(i) Risk free rate of return.

(ii) Expected rate of return of each security (except GOI Bond), using the Capital Asset Pricing Model (CAPM).

Note: (1) Use weighted average Beta in calculations.

(2) Round off calculations upto 3 decimal points. **(6 Marks)**

(b) XYZ Plan, a hedge fund currently has assets of ₹ 40 crore. Mr. A, the manager of fund charges fee of 0.10% of portfolio asset. In addition to it he charges an incentive fee of 2%. The incentive will be linked to gross return each year in excess of the portfolio maximum value since the inception of fund. The maximum value the fund achieved so far since inception of fund about one and half year ago was ₹ 42 crores.

Evaluate:

(i) Benchmark Return to make Mr. A eligible for incentive fee.

(ii) The fee payable to Mr. A if return on the fund this year turns out to be :

(1) 29% (2) 4.5% **(4 Marks)**

(c) What do you mean by Corporate Level Strategy. Also explain three basic questions Corporate Level Strategy should be able to answer.

(4 Marks)

5. (a) T plc wants to acquire L plc. The balance sheet of L plc as on 31st March 2022 is as follows:

Liabilities	£	Assets	£
Equity Capital (35,00,000 shares)	35,00,000	Cash	2,50,000
Retained earnings	15,00,000	Debtors	3,50,000
12% Debentures	15,00,000	Inventories	10,00,000

Creditors and other liabilities	16,00,000	Plants & Eqpt.	65,00,000
	81,00,000		81,00,000

Additional Information:

(i) Shareholders of L plc will get one share in T plc for every two shares. External liabilities are expected to be settled at £ 2.50 Million. Shares of T plc would be issued at its current price of £ 1.50 per share. Debenture holders will get 13% convertible debentures in the purchasing company for the same amount. Debtors and inventories are expected to realize £ 1 Million.

(ii) T plc has decided to operate the business of L plc as a separate division. The division is likely to give cash flows (after tax) to the extent of £ 2.50 Million per year for 6 years. T plc has planned that, after 6 years, this division would be demerged and disposed of for £ 1 Million.

(iii) The company's cost of capital is 16%.

Advise the Board of the company about the financial feasibility of this acquisition.

Net present values for 16% for £ 1 are as follows:

Years	1	2	3	4	5	6
PV	0.862	0.743	0.641	0.552	0.476	0.410

(6 Marks)

(b) A mutual fund company introduces two schemes i.e. Dividend plan (Plan-D) and Bonus plan (Plan-B). The face value of the unit is ₹ 10. On 1-4-2018 Mr. K invested ₹ 2,00,000 each in Plan-D and Plan-B when the NAV was ₹ 38.20 and ₹ 35.60 respectively. Both the plans matured on 31-3-2023.

Particulars of dividend and bonus declared over the period are as follows:

Date	**Dividend %**	**Bonus Ratio**	**Net Asset Value (₹)**	
			Plan D	**Plan B**
30-09-2018	10	---	39.10	35.60

30-06-2019	---	1:5	41.15	36.25
31-03-2020	15	---	44.20	33.10
15-09-2021	13	---	45.05	37.25
30-10-2021	---	1:8	42.70	38.30
27-03-2022	16	---	44.80	39.10
11-04-2022	---	1:10	40.25	38.90
31-03-2023	---	---	40.40	39.70

Evaluate the Effective Yield Per Annum in respect of the above two plans.

Note:

1. Use following PV Factors:

   PVIF (2%,5) = 0.9057, PVIF (4%,5) = 0.8219, PVIF (8%,5) = 0.6806, PVIF (13%,5) = 0.5428

2. Round off calculations upto 2 decimal points. **(8 Marks)**

6. (a) R Ltd. is considering a project with the following Cash flows:

in ₹

Years	Cost of Plant	Recurring Cost	Savings
0	20,000		
1		8,000	24,000
2		10,000	28,000

The cost of capital is 9%.

Evaluate the sensitivity of the project in respect of all factors except time such that:

(i) NPV become zero and

(ii) adversely varying factors value by 10%.

The P.V. factor at 9% are as under:

Year	Factor
0	1
1	0.917
2	0.842

Note: Round off calculation upto 2 decimal points. **(8 Marks)**

(b) Bank entered a plain vanilla swap through on OIS (Overnight Index Swap) on a principal of ₹ 20 crores and agreed to receive MIBOR overnight floating rate for a fixed payment on the principal. The swap was entered into on Monday, 2nd August 2020 and was to commence on 3rd August 2020 and run for a period of 7 days.

Respective MIBOR rates for Tuesday to Monday were:

7.75%, 8.15%, 8.12%, 7.95%, 7.98% and 8.15%.

If Bank received ₹ 634 net on settlement, calculate the applicable Fixed rate for the same swap period.

Notes:

(i) Sunday is Holiday.

(ii) Work in rounded rupees and avoid decimal working.

(iii) Consider 365 days a year. **(6 Marks)**