

**MODEL TEST PAPER - 10**  
**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**

Following Financial data are available for PQR Ltd. for the financial year ending 2023:

	(₹ in lakh)
8% Debentures	125
10% Bonds (2022)	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%

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

1. 10% Bonds must have issued in the month of.....
  - (a) May 2022
  - (b) June 2022

- (c) July 2022  
(d) August 2022
2. Amount of retained earning for the financial year 2023 approximately is.....
- (a) ₹ 52.00 lakh  
(b) ₹ 31.20 lakh  
(c) ₹ 26.00 lakh  
(d) ₹ 5.20 lakh
3. Return on Equity (ROE) of PQR Ltd. is.....
- (a) 15.00%  
(b) 6.50%  
(c) 10.00%  
(d) 7.80%
4. Sustainable Growth Rate of PQR Ltd. shall be approximately.....
- (a) 15.00%  
(b) 6.50%  
(c) 10.00%  
(d) 7.80%
5. Fair price of share of PQR Ltd. using Dividend Discount Model shall be approximately.....
- (a) ₹ 10  
(b) ₹ 14  
(c) ₹ 6.12  
(d) ₹ 6.51
- (5 x 2 = 10 Marks)**

### **Case Scenario II**

An Indian exporting firm, Rohit and Bros. exported good worth of AUD 1 million to an importer in Sydney. Rohit and Bros. are worried about likely depreciation of AUD in near future as it is likely that the export sum will be received after 3

months. Today as such as there is no derivative contract is available in AUD to hedge itself from such depreciation.

The following data is given:

Spot rate	: ₹ 56.00/AUD
3 months interest rate	: India : 12 per cent per annum
	: Australia : 5 per cent per annum

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

6. .... hedging technique can be used Rohit and Bros. to hedge itself against the risk of depreciation of AUD.
  - (a) Forward Contract
  - (b) Future Contract
  - (c) Option Contract
  - (d) Money Market Hedge
7. Suppose if Rohit and Bros. want to borrow some amount in AUD in such a manner that the receivable amount can be used to repay the amount borrowed along with interest. The amount to be borrowed by Rohit and Bros. shall be approximately.....
  - (a) AUD 1 million
  - (b) AUD 9,87,654
  - (c) ₹ 5,53,08,624
  - (d) ₹ 5,69,67,882
8. Suppose if Rohit and Bros. borrows a designated amount in AUD for 3 months in such a manner that the receivable amount can be used to repay the amount borrowed along with interest and plan to invest same amount in Indian spot market. The same amount available for investment shall be approximately.....
  - (a) AUD 1 million
  - (b) AUD 9,87,654
  - (c) ₹ 5,53,08,624

- (d) ₹ 5,69,67,882
9. Suppose if Rohit and Bros. borrows a designated amount for 3 months in AUD in such a manner that the receivable amount can be used to repay the amount borrowed along with interest. Further he plans to invest same amount in Indian spot market. The amount obtained after 3 months of investment shall be approximately.....
- (a) AUD 1 Million  
 (b) AUD 9,87,654  
 (c) ₹ 5,53,08,624  
 (d) ₹ 5,69,67,883
10. Suppose if Interest Rate Parity theory is held between INR and AUD, then forward rate between INR and AUD for 6 month should be.....
- (a) ₹ 51.54/AUD  
 (b) ₹ 57.91/AUD  
 (c) ₹ 52.50/AUD  
 (d) ₹ 59.73/AUD

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

**Case Scenario III**

XYZ Ltd. plans to invest ₹ 800,000 in a new unit. The project is expected to have a useful life of 4 years, with no salvage value at the end of its life. The annual depreciation charge for the project is ₹ 200,000.

Projected revenues and costs for the project, ignoring inflation, are provided as follows:

Year	Revenues (₹)	Costs (₹)
1	600,000	300,000
2	700,000	400,000
3	800,000	400,000
4	800,000	400,000

XYZ Ltd. is subject to a corporate tax rate of 60%, and the cost of capital for the project, including inflation premium, is 10%.

Depreciation provides a tax benefit, and inflation rates for revenues and costs over the project's lifespan are as follows:

Year	Revenue Inflation	Cost Inflation
1	10%	12%
2	9%	10%
3	8%	9%
4	7%	8%

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

11. The depreciation tax benefit for the project per year shall be.....
  - (a) ₹ 120,000
  - (b) ₹ 150,000
  - (c) ₹ 200,000
  - (d) ₹ 180,000
12. The inflation-adjusted revenue in Year 2 shall be.....
  - (a) ₹ 700,000
  - (b) ₹ 839,300
  - (c) ₹ 492,800
  - (d) ₹ 501,760
13. The total cash inflow in Year 1 after adjusting for inflation and tax benefit on depreciation shall be.....
  - (a) ₹ 330,000
  - (b) ₹ 336,000
  - (c) ₹ 249,600
  - (d) ₹ 492,800
14. The inflation-adjusted cost in Year 2 shall be.....
  - (a) ₹ 700,000

- (b) ₹ 839,300  
(c) ₹ 492,800  
(d) ₹ 501,760
15. The present value of cash inflow for the year 3 shall be approximately.....
- (a) ₹ 213,604  
(b) ₹ 226,299  
(c) ₹ 226,886  
(d) ₹ 239,949
- (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) Following information is given in respect of WXY Ltd., which is expected to grow at a rate of 20% p.a. for the next three years, after which the growth rate will stabilize at 8% p.a. normal level, in perpetuity.

	<b>For the year ended March 31, 2014</b>
Revenues	₹ 7,500 Crores
Cost of Goods Sold (COGS)	₹ 3,000 Crores
Operating Expenses	₹ 2,250 Crores
Capital Expenditure	₹ 750 Crores
Depreciation (included in Operating Expenses)	₹ 600 Crores

During high growth period, revenues & Earnings before Interest & Tax (EBIT) will grow at 20% p.a. and capital expenditure net of depreciation will grow at 15% p.a. From year 4 onwards, i.e. normal growth period revenues and EBIT will grow at 8% p.a. and incremental capital expenditure will be offset by the depreciation. During both high growth & normal growth period, net working capital requirement will be 25% of revenues.

The Weighted Average Cost of Capital (WACC) of WXY Ltd. is 15%.  
Corporate Income Tax rate will be 30%.

Required:

Estimate the value of WXY Ltd. using Free Cash Flows to Firm (FCFF) & WACC methodology.

The PVIF @ 15 % for the three years are as below:

Year	t <sub>1</sub>	t <sub>2</sub>	t <sub>3</sub>
<b>PVIF</b>	0.8696	0.7561	0.6575

**(8 Marks)**

- (b) Shiva has a fund of ₹ 5 lacs which he wants to invest in share market with rebalancing target after every 15 days to start with for a period of one month from now. The present NIFTY is 17025. The minimum NIFTY within a month can at most be 15322.50. He wants to know as to how he should rebalance his portfolio under the following situations, according to the theory of Constant Proportion Portfolio Insurance Policy, using "2" as the multiplier:

- (1) Immediately to start with.
- (2) 15 days later-being the 1st day of rebalancing if NIFTY falls to 16321.89.
- (3) 15 days further from the above date if the NIFTY touches 17512.14.

**Note:** Assume that the value of his equity component will change in tandem with that of the NIFTY.

**(6 Marks)**

2. (a) Following is the Balance Sheet of M/s. PK Ltd. as on 31-03-2015:

Particulars	₹ in Lacs
<b>I. Equity &amp; Liabilities</b>	
<b>Shareholders' Fund</b>	
Equity Share Capital (₹ 10 each)	900.00
10% Preference Share Capital (₹ 100 each)	300.00
Reserves & Surplus	(500.00)
<b>Non-Current Liabilities</b>	
Term Loan	400.00

<b>Current Liabilities</b>	
Trade Payables	400.00
<b>Total (I)</b>	<b>1500.00</b>
<b>II. Assets</b>	
<b>Non-Current Assets</b>	1000.00
<b>Current Assets :</b>	
Inventory	300.00
Trade Receivables	100.00
Cash & Bank Balance	100.00
<b>Total (II)</b>	<b>1500.00</b>

M/s PK Ltd. did not perform well and has suffered sizeable losses during the last few years. However, it is now felt that the company can be nursed back to health by proper financial restructuring and consequently the following scheme of reconstruction have been designed :

- (i) Equity shares are to be reduced to ₹ 2 per share fully paid.
- (ii) Preference shares are to be reduced by ₹ 50 per share and rate of dividend on Preference shares is also reduced by 2%.
- (iii) Trade Payables have agreed to forego 40% of their existing claims and for the balance 50% they have agreed to convert their claims into equity shares of ₹ 2 each, fully paid.
- (iv) In order to make payment for Term Loan, the company issues 200 Lacs equity shares of ₹ 2 each at par. Entire sum is required to be paid on application.
- (v) Non-Current Assets is to be revalued at ₹ 500 Lacs.

You are required:

- (1) To show the impact of financial restructuring.
  - (2) To prepare Balance Sheet assuming the scheme of restructuring is implemented. **(10 Marks)**
- (b) Explain some of the 'sell-side' imperatives in Mergers & Acquisitions. **(4 Marks)**



3. (a) On the basis of given information, Mr. XLY want to create a portfolio equally as risky as the market and is having ₹ 20,00,000 to invest.

<u>Assets</u>	<u>Investment</u>	<u>Beta</u>
Stock A	₹ 4,00,000	0.70
Stock B	₹ 5,00,000	1.10
Stock C	?	1.60
Debenture (D)	?	0

How do you recommend and interpret the risk scenario and investment in all the securities? **(6 Marks)**

- (b) The following are the details of three mutual funds of MFL:

	<b>Growth Fund</b>	<b>Balanced Fund</b>	<b>Regular Fund</b>	<b>Market</b>
Average Return (%)	7	6	5	9
Variance	92.16	54.76	40.96	57.76
Coefficient of Determination	0.3025	0.6561	0.9604	

The yield on 182 days Treasury Bill is 9 per cent per annum.

You are required to:

- (i) Rank the funds as per Sharpe's measure.
- (ii) Rank the funds as per Treynor's measure **(4 Marks)**
- (c) Explain the conditions that are required to be satisfied by an entity to be Considered as a Startup vide GSR Notification 127 (E) dated 19<sup>th</sup> February 2019. **(4 Marks)**

**OR**

Explain briefly the various factors that affect the value of an Option.

**(4 Marks)**

4. (a) A textile manufacturer has taken floating interest rate loan of ₹40,00,000 on 1st April, 2012. The rate of interest at the inception of loan is 8.5% p.a. interest is to be paid every year on 31st March, and the duration of loan is four years. In the month of October 2012, the Central bank of the country releases following projections about

the interest rates likely to prevail in future.

Dates	Interest Rate
31 <sup>st</sup> March, 2013	8.75%
31 <sup>st</sup> March, 2014	10.00%
31 <sup>st</sup> March, 2015	10.50%
31 <sup>st</sup> March, 2016	7.75%.

- (i) Advise how borrower can hedge the risk arising out of expected rise in the rate of interest when he is interested in pegging his interest cost at 8.50% p.a. and if option on Interest Rate is available at 0.75% p.a.
- (ii) Assume that the premium negotiated by both the parties at the above-mentioned rate which is to be paid on upfront basis and the actual rate of interest on the respective due dates happens to be as follows:

Dates	Interest Rate
31 <sup>st</sup> March, 2013	10.20%
31 <sup>st</sup> March, 2014	11.50%
31 <sup>st</sup> March, 2015	9.25%
31 <sup>st</sup> March, 2016	8.25%.

Evaluate how the settlement will be executed on the respective interest due dates. **(8 Marks)**

- (b) Ram holding shares of Reliance Industries Ltd. which is currently selling at ₹ 1000. He is expecting that this price will further go down due to lower level of profit than expected level to be announced after one month. As on date following option contract are available in Reliance Share.

Strike Price	Option	Premium (₹)
1030	Call	40
1010	Call	35
1000	Call	30
990	Put	35
970	Put	20

950	Put	8
930	Put	5

Ram is interested in selling his stock holding as he cannot afford to lose more than 5% of its value.

Recommend a hedging strategy with option and show how his position will be protected. **(6 Marks)**

5. (a) There are two Mutual Funds viz. D Mutual Fund Ltd. and K Mutual Fund Ltd. Each having close ended equity schemes.

NAV as on 31-12-2014 of equity schemes of D Mutual Fund Ltd. is ₹ 70.71 (consisting 99% equity and remaining cash balance) and that of K Mutual Fund Ltd. is 62.50 (consisting 96% equity and balance in cash).

Following is the other information:

Particular	Equity Schemes	
	D Mutual Fund Ltd.	K Mutual Fund Ltd.
Sharpe Ratio	2	3.3
Treynor Ratio	15	15
Standard deviation	11.25	5

There is no change in portfolios during the next month and annual average cost is ₹ 3 per unit for the schemes of both the Mutual Funds.

If Share Market goes down by 5% within a month, calculate expected NAV after a month for the schemes of both the Mutual Funds.

For calculation, consider 12 months in a year and ignore number of days for particular month. **(6 Marks)**

- (b) Excel Exporters are holding an Export bill in United States Dollar (USD) 1,00,000 due 60 days hence. They are worried about the falling USD value which is currently at ₹ 45.60 per USD. The concerned Export Consignment has been priced on an Exchange rate of ₹ 45.50 per USD. The Firm's Bankers have quoted a 60-day forward rate of ₹ 45.20.

Calculate:

- (i) Rate of discount quoted by the Bank
  - (ii) The probable loss of operating profit if the forward sale is agreed to. **(4 Marks)**
- (c) Explain the various requirements that makes an organisation sustainable. **(6 Marks)**
6. (a) The Management of a multinational company TL Ltd. is engaged in construction of Infrastructure Project. A proposal to construct a Toll Road in Nepal is under consideration of the Management.

The following information is available:

The initial investment will be in purchase of equipment costing USD 250 lakhs. The economic life of the equipment is 10 years. The depreciation on the equipment will be charged on straight line method.

EBIDTA to be collected from the Toll Road is projected to be USD 33 lakhs per annum for a period of 20 years.

To encourage investment Nepalese government is offering a 15 year term loan of USD 150 lakhs at an interest rate of 6 per cent per annum. The interest is to be paid annually. The loan will be repaid at the end of 15 year in one tranche.

The required rate of return for the project under all equity financing is 12 per cent per annum.

Post tax cost of debt is 5.6 per cent per annum.

Corporate Tax Rate is 30 per cent.

All cash Flows will be in USD.

Ignore inflation.

You are required to advise the management on the viability of the proposal by using Adjusted Net Present Value method.

Given

$PVIFA (12\%, 10) = 5.650$ ,  $PVIFA (12\%, 20) = 7.469$ ,  $PVIFA (8\%, 15) = 8.559$ ,  $PVIF (8\%, 15) = 0.315$ . **(8 Marks)**

- (b) You as an investor had purchased a 4 month call option on the equity shares of X Ltd. of ₹ 10, of which the current market price is ₹ 132 and the exercise price ₹ 150. You expect the price to range between ₹ 120 to ₹ 190. The expected share price of X Ltd. and related probability is given below:

Expected Price (₹)	120	140	160	180	190
Probability	0.05	0.20	0.50	0.10	0.15

Compute 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. **(4 Marks)**
- (c) Explain any Three features of securitization. **(2 Marks)**