Mock Test Paper - Series I July, 2025

Date of Paper: 22nd July, 2025

Time of Paper: 2 P.M. to 5 P.M.

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

XYZ Ltd., a medium-sized company in the renewable energy sector, is experiencing steady sales growth. The company's management, however, is concerned about balancing rapid growth with long-term sustainability. In the past year, XYZ's growth objectives have led to aggressive expansion plans, but management now realizes that such growth might not be financially sustainable in the long run. This raises concerns about how to maintain the company's financial health while meeting its ambitious growth targets.

The CFO of XYZ Ltd. highlights the importance of Sustainable Growth Rate (SGR).

The company now needs to ensure that its operational and financial policies align with its growth goals. XYZ must avoid expanding too quickly, which could strain its financial resources and lead to excessive borrowing. Moreover, management must also consider the long-term implications of resource consumption, particularly in the renewable energy industry, where sustainability is key to both current and future stakeholders.

XYZ Ltd. also realizes that it needs to focus on building its growth capability alongside its growth strategy. Without the necessary infrastructure and financial planning in place, the company's efforts to achieve long-term, sustainable growth could be in jeopardy. Furthermore, the company is aware of the risks of relying too much on external financing and recognizes the need for a balance between maintaining sufficient equity and minimizing debt.

Given the importance of these considerations, XYZ's management team must now review their growth strategy and financial policies to ensure they are consistent with the firm's sustainable growth objectives.

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

1. The concept of Sustainable Growth Rate introduced by.....
   (a) Harry Markowitz
   (b) William Sharpe
   (c) Black Scholes
   (d) Robert C. Higgins
2. The Sustainable Growth Rate (SGR) represents.....
   (a) the rate at which the company can grow by issuing more equity.
   (b) the maximum rate of growth in sales that can be achieved without borrowing additional funds.
   (c) the growth rate determined by market demand for XYZ's products.
   (d) the rate of growth determined by inflationary pressures.
3. According to the case scenario the risk associated with growing too quickly is that.....
   (a) the company might not be able to retain competent staff.
   (b) the company could face liquidity issues due to over-expansion.
   (c) the company's stock price might decline.
   (d) it could reduce the company's market share.
4. Which of the following twin cornerstones are necessary for XYZ Ltd. to achieve sustainable growth?
   (a) Market conditions and competition.
   (b) Growth capability and growth strategy.
   (c) Product innovation and marketing strategy.
   (d) Cost-cutting measures and increased sales.
5. In an inflationary condition if creditors require that XYZ Ltd.'s historical cost debt-to-equity ratio stay constant, the inflation.....
   (a) reduces the need for external financing.

(b) increases the sustainable growth rate by lowering costs.

(c) lowers the sustainable growth rate.

(d) It has no effect on the company's growth rate. **(5 x 2 = 10 Marks)**

Case Scenario II

You are an investment analyst working for a financial advisory firm. You have been asked to analyze the bond market's yield curve to assist your clients in making investment decisions. The yield curve represents the relationship between the interest rates (yield) and the time to maturity for debt securities, usually government bonds.

For simplicity, assume the following yield data for government bonds over various maturities (measured in years):

Yield Curve Table

Maturity (Years)	Yield (%)
1 Year	3.00%
2 Years	4.00%
3 Years	5.00%
5 Years	6.00%
7 Years	6.40%
10 Years	7.00%
15 Years	7.40%
30 Years	7.60%

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

6. The main characteristic of a normal yield curve is……

(a) Short-term yields are higher than long-term yields.

(b) Short-term yields are lower than long-term yields.

(c) Yields remain the same across all maturities.

(d) Yields fluctuate randomly over different maturities.

7. Based on the given yield data, what is the yield spread between the 10-year bond and the 1-year bond?

(a) 2.0%

(b) 3.5%

(c) 4.0%

(d) 5.0%

8. An inverted yield curve typically indicates…….

(a) Economic growth

(b) Economic uncertainty

(c) An upcoming recession

(d) Inflationary pressure

9. If an investor is looking to invest for 2 years starting at the end of 3 years from now, the forward rate he would expect shall be approximately……

(a) 7.41%

(b) 7.52%

(c) 7.76%

(d) 7.93%

10. If an investor is looking to invest for 2 years starting 5 years from now, the forward rate he would expect shall be approximately……

(a) 7.41%

(b) 7.52%

(c) 7.76%

(d) 7.93% **(5 x 2 = 10 Marks)**

Case Scenario III

XYZ Ltd., a U.S. firm, will require £ 300,000 in 180 days and is evaluating different strategies to hedge against currency risk. The available market data is as follows:

Current Spot Rate: 1 £ = $ 2.00

180-Day Forward Rate: 1 £ = $ 1.96

Interest Rates:

- **UK (180 days):**
  - Deposit Rate: 4.50%
  - Borrowing Rate: 5.00%

- **US (180 days):**
    - Deposit Rate: 5.00%
    - Borrowing Rate: 5.50%

Option Contract:

- Call option available on £, expiring in 180 days with:
    - Exercise Price: $ 1.97
    - Premium: $ 0.04

XYZ Ltd. has forecasted the following probabilities for spot rates after 180 days:

Spot Rate	Probability
$ 1.91	25%
$ 1.95	60%
$ 2.05	15%

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

11. The expected dollar amount needed .....if XYZ Ltd. does not hedge.
    (a) $ 5,88,000
    (b) $ 6,05,741
    (c) $ 5,95,560
    (d) $ 5,86,500
12. If XYZ Ltd. chooses the forward contract option, the expected dollar amount needed in 180 days, the total dollar amount required shall be.....
    (a) $ 5,88,000
    (b) $ 6,05,741
    (c) $ 5,95,560
    (d) $ 5,86,500
13. Under the money market hedge, approximately how much amount in dollars will XYZ Ltd. need to repay after 180 days?
    (a) $ 5,88,000
    (b) $ 6,05,741

(c) $ 5,95,560

(d) $ 5,86,500

14. If XYZ Ltd. chooses the call option contract, after 180 days the total cost in dollar for £ 300,000 (inclusive of interest on Premium amount) shall be.....

(a) $ 5,88,000

(b) $ 6,05,741

(c) $ 5,95,560

(d) $ 5,86,500

15. The expected spot rate per £ after 180 days shall be approximately.....

(a) $ 1.91

(b) $ 1.94

(c) $ 1.96

(d) $ 2.05 **(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) Mr. NK has categorized all the available stock in the market into the following types:

(i) Small cap growth stocks

(ii) Small cap value stocks

(iii) Large cap growth stocks

(iv) Large cap value stocks

Mr. NK also estimated the weights of the above categories of stocks in the market index. Further, the sensitivity of returns on these categories of stocks to the three important factors are estimated to be:

Category of Stocks	Weight in the Market Index	Factor I (Beta)	Factor II (Book Price)	Factor III (Inflation)
Small cap growth	25%	0.80	1.39	1.35
Small cap value	10%	0.90	0.75	1.25
Large cap growth	50%	1.165	2.75	8.65
Large cap value	15%	0.85	2.05	6.75
Risk Premium		6.85%	-3.5%	0.65%

The rate of return on Treasury Bonds is 4.50%.

Required:

(i) Using Arbitrage Pricing Theory, determine the expected return on the market index.

(ii) Using Capital Asset Pricing Model (CAPM), determine the expected return on the market index.

(iii) Mr. NK wants to construct a portfolio constituting only the 'Small cap value' and 'Large cap growth' stocks. If the target beta for the desired portfolio is 1, suggest the composition of his portfolio. **(6 Marks)**

(b) On 1st April 2019 FR Mutual Fund has the following assets and prices at 4.00 p.m.

Shares	No. of Shares	Market Price Per Share (₹)
A Ltd.	10000	19.70
B Ltd.	50000	482.60
C Ltd.	10000	264.40
D Ltd.	100000	674.90
E Ltd.	30000	25.90
No. of units of funds		8,00,000

Required:

(i) Calculate NAV of the Fund on 1st April 2019.

(ii) Assess the position of Fund, assuming that on 1st April 2019, Mr. X, an HNI, send a cheque of ₹ 50,00,000 to the Fund and Fund Manager immediately purchases 18000 shares of C Ltd. and balance is held in bank. **(4 Marks)**

(c) Define the term Value-at-Risk (VAR) and explain its main features. **(4 Marks)**

2. (a) KLM Ltd., is considering taking up one of the two projects-Project-K and Project-S. 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

Evaluate which of the two projects is riskier? **(6 Marks)**

(b) R Ltd. has surplus cash of ₹ 100 lakhs and wants to distribute 27% of it to the shareholders. The company decides to buy back shares. The Finance Manager of the company estimates that its share price after re-purchase is likely to be 10% above the buyback price if the buyback route is taken. The number of shares outstanding at present is 10 lakhs and the current EPS is ₹ 3.

You are required to suggest:

(i) The price at which the shares can be re-purchased, if the market capitalization of the company should be ₹ 210 lakhs after buyback,

(ii) The number of shares that can be re-purchased, and

(iii) The impact of share re-purchase on the EPS, assuming that after buyback net income shall remain the same. **(4 Marks)**

(c) Briefly explain the techniques used for analyzing the Industry wide factors.

(4 Marks)

3. (a) Zaz plc, a UK Company is in the process of negotiating an order amounting € 2.8 million with a large German retailer on 6 month's credit. If successful, this will be first time for Zaz has exported goods into the highly competitive German

Market. The Zaz is considering following 3 alternatives for managing the transaction risk before the order is finalized.

(I) Mr. Peter the Marketing head has suggested that in order to remove transaction risk completely Zaz should invoice the German firm in Sterling using the current €/£ average spot rate to calculate the invoice amount.

(II) Mr. Wilson, CE is doubtful about Mr. Peter's proposal and suggested an alternative of invoicing the German firm in € and using a forward exchange contract to hedge the transaction risk.

(III) Ms. Karen, CFO is agreed with the proposal of Mr. Wilson to invoice the German first in €, but she is of opinion that Zaz should use sufficient 6-month Sterling Future contracts (to the nearest whole number) to hedge the transaction risk.

Following data is available:

Spot Rate	€ 1.1960 - €1.1970/£
6-months forward points	0.60 – 0.55 Euro Cents.
6-month Future contract is currently trading at	€ 1.1943/£
6-month Future contract size is	£ 62,500
After 6-month Spot rate and future rate	€ 1.1873/£

You are required to:

(i) Suggest which alternative you consider to be most appropriate.

(ii) Explain the reason why Mr. Wilson is doubtful about Mr. Peter's proposal.

(6 Marks)

(b) From the following particulars, calculate the effective rate of interest p.a. as well as the total cost of funds to Bhaskar Ltd., which is planning a CP issue:

Issue Price of CP	₹ 97,550	
Face Value	₹ 1,00,000	
Maturity Period	3 Months	
Issue Expenses:		
Brokerage	0.15% for 3 months	
Rating Charges	0.50% p.a.	
Stamp Duty	0.175% for 3 months	**(4 Marks)**

Either

(c) Briefly explain the steps in securitization mechanism **(4 Marks)**

Or

(c) Explain Factors Affecting Value of an Option. **(4 Marks)**

4. (a) Two companies ABC Ltd. and XYZ Ltd. approach the DEF Bank for FRA (Forward Rate Agreement). Both companies want to borrow a sum of ₹ 100 crores after 2 years for a period of 1 year. Bank has calculated Yield Curve of both companies as follows:

Year	XYZ Ltd.	ABC Ltd.
1	3.86%	4.12%
2	4.20%	5.48%
3	4.48%	5.78%

Required:

(i) Identify at least one reason for difference in the Yield Curve for the companies.

(ii) Calculate the rate of interest DEF Bank would quote under 2V3 FRA, using the company's yield information as quoted above.

(iii) Suppose DEF Bank offers Interest Rate Guarantee for a premium of 0.10% of the amount of loan, calculate the cost of interest for XYZ Ltd. if interest rate for one year in 2 years turns out to be

(1) 4.50%

(2) 5.50% **(4 Marks)**

(b) Equity of KGF Ltd. (KGFL) is ₹ 410 Crores, its Debt, is worth ₹ 170 Crores. Printer Division segments value is attributable to 74%, which has an Asset Beta (β_p) of 1.45, balance value is applied on Spares and Consumables Division, which has an Asset Beta (β_{sc}) of 1.20 KGFL Debt beta (β_D) is 0.24.

Required:

(i) Calculate Equity Beta (β_E) of KGFL,

(ii) Assess Equity Beta (β_E), if KGF Ltd. decides to change its Debt Equity position by raising further debt and buying back of equity to have its Debt Equity Ratio at 1.90 [Debt/ (Debt + Equity)]. Assume that the present

Debt Beta (β_{D1}) is 0.35 and any further funds raised by way of Debt will have a Beta (β_{D2}) of 0.40.

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

(c) Explain the structure of Venture Capital Funds exist in India. **(4 Marks)**

5. (a) (i) On 1 April 2015, Sunidhi was holding a portfolio of 10 securities whose value was ₹ 9,94,450, the weighted average of beta of 9 securities of the portfolio was 1.10.

Since she was expecting a fall in the prices of the shares in near future to hedge her portfolio, she sold 5 contract of NIFTY Futures (Multiplier of 25) expiring in May 2015, which was trading at 8767.07 on 1 April.

Required:

(1) Calculate the beta of the 10th security.

(2) Reconcile the reasons in spite of 2% fall in the market as per Sunidhi's apprehension if she would have earned some profit on her cash position.

(ii) A Futures contract is available on R Ltd. that pays an annual dividend of ₹ 4 and whose stock is currently priced at ₹ 125. Each Futures contract calls for delivery of 1,000 shares to stock in one year, daily marking to market. The treasury bill rate is 8%.

Required:

(1) Given the above information, assess the price of one Futures contract.

(2) If the company stock price decreases by 6%, then what will be the price of one Futures contract?

(3) Suppose the company stock price decreases, then evaluate realizes gain or loss for an investor that has a long position in one Futures contract of R Ltd.

(Ignore margin and taxation, if any) **(8 Marks)**

(b) Electraspace is consumer electronics wholesaler. The business of the firm is highly seasonal in nature. In 6 months of a year, firm has a huge cash deposits and especially near Christmas time and other 6 months firm cash crunch, leading to borrowing of money to cover up its exposures for running the business.

It is expected that firm shall borrow a sum of €50 million for the entire period of slack season in about 3 months.

A Bank has given the following quotations:

Spot	5.50% - 5.75%
3 × 6 FRA	5.59% - 5.82%
3 × 9 FRA	5.64% - 5.94%

3-month €50,000 future contract maturing in a period of 3 months is quoted at 94.15 (5.85%).

You are required to examine:

(i) How a FRA, shall be useful if the actual interest rate after 3 months turnout to be:

(1) 4.5% (2) 6.5%

(ii) How 3 months Future contract shall be useful for company if interest rate turns out as mentioned in part (a) above. **(6 Marks)**

6. (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

(8 Marks)

(b) C Ltd. and P Ltd. both companies operating in the same industry decided to merge and form a new entity S Ltd. The relevant financial details of the two companies prior to merger announcement are as follows:

	C Ltd.	P Ltd.
Annual Earnings after Tax (₹ lakh)	10000	5800
No. Shares Outstanding (lakh)	4000	1000
PE Ratio (No. of Times)	8	10

The merger will be affected by means of stock swap (exchange) of 3 shares of C Ltd. for 1 share of P Ltd.

After the merger it is expected that due to synergy effects, Annual Earnings (Post Tax) are expected to be 8% higher than sum of the earnings of the two companies individually. Further, it is expected that P/E Ratio of S Ltd. shall be average of P/E Ratios of two companies before the merger.

You are required to determine the extent to which shareholders of P Ltd. will be benefitted per share from the proposed merger. **(6 Marks)**