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Total Number of Pages: 02

Course: IMBA
Sub_Code: 16IMN801B

8th Semester Regular/Back Examination: 2025-26
SUBJECT: SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT
BRANCH(S): IMBA
Time: 3 Hours
Max Marks: 100
Q.Code: V028

Answer Q1 (Part-I) which is compulsory, any eight from Part-II, and any two from Part-III.
The figures in the right hand margin indicate marks.

Part-I

Q1 Answer the following questions: (2 x 10)

- Define 'Investment'. State any two objectives of investment.
- What is the difference between Systematic Risk and Unsystematic Risk?
- What is Beta (β) in the context of portfolio management? What does a Beta value of 1.5 indicate?
- Define 'Portfolio'. What is meant by an Efficient Portfolio?
- What is the Capital Market Line (CML)? How is it different from the Security Market Line (SML)?
- What do you mean by 'Efficient Market Hypothesis (EMH)'? Name its three forms.
- What is Technical Analysis? Name any two charting tools used in it.
- Define Alpha (α) in Sharpe's Single Index Model.
- What is the Treynor Index of portfolio performance? State its formula.
- What is Arbitrage Pricing Theory (APT)? State one difference between APT and CAPM.

Part-II

Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve) (6 x 8)

- Explain the various alternative forms of investment available to an individual investor. Which form would you recommend for a risk-averse investor, and why?
- How is Risk and Return measured on a Single Asset? Explain with the help of expected return formula and standard deviation.
- Explain the concept of Economic, Industry, and Company (EIC) Analysis in Fundamental Analysis. Why is the top-down approach preferred?
- Distinguish between Fundamental Analysis and Technical Analysis. Which approach would you consider more reliable for a long-term investor?
- Explain the concept of the Efficient Frontier. How does the introduction of a Risk-Free Asset change the efficient frontier into the Capital Market Line (CML)?
- A stock has a Beta of 1.2, the risk-free rate is 6 %, and the expected market return is 14 %. Using CAPM, calculate the expected return on the stock. If the stock is currently priced to give a return of 16 %, is it overpriced or underpriced? Justify.

- g) What is the CAPM? State its assumptions. Write the CAPM equation and explain each component.
- h) Explain Sharpe's Index and Jensen's Alpha as methods of portfolio performance evaluation. How are they computed?
- i) "The Efficient Market Hypothesis challenges the usefulness of both Technical and Fundamental Analysis." Discuss this statement with reference to the weak, semi-strong, and strong forms of EMH.
- j) What are the various charting tools used in Technical Analysis? Briefly explain Bar Chart, Line Chart, and Point & Figure Chart.
- k) What are the basic assumptions of the Markowitz Model for portfolio selection? Explain the concept of the Feasible Set and Efficient Set of portfolios.
- l) Explain Sharpe's Single Index Model. How does it simplify portfolio selection compared to the Markowitz Model?

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

- Q3** What is unsystematic risk? Explain the different types of unsystematic risk. **(16)**
- Q4** An investor has analysed a stock for a one year holding period. There is fifty-fifty chance that the stock currently selling at Rs. 160 will sell for Rs. 155 or Rs. 170 by the year end. The investor can borrow on 40 percent margin from his bank at 10 percent per annum.
- (a) What is the investor's holding period yield and risk if he buys 100 shares and does not borrow?
 - (b) What would be his expected yield and risk if he buys 200 shares paying 60 % of the cost with borrowed funds?
- Q5** Using the following data, evaluate the performance of three portfolios and rank them using all three measures: **(16)**
- Portfolio A: Return = 18 %, $\beta = 1.2$, Std Dev = 20 %
 Portfolio B: Return = 15 %, $\beta = 0.9$, Std Dev = 16 %
 Portfolio C: Return = 12 %, $\beta = 0.7$, Std Dev = 14 %
 Market Return = 13 %, Risk-Free Rate = 6 %
 Which portfolio would you recommend and why?
- Q6** Discuss the need for portfolio revision and constraints faced by the investment advisors. **(16)**

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Course: IMBA
Sub_Code: 16IMN802B

8th Semester Regular/Back Examination: 2025-26

SUBJECT: FINANCIAL DERIVATIVES

BRANCH(S): IMBA

Time: 3 Hours

Max Marks: 100

Q.Code: V129

Answer Q1 (Part-I) which is compulsory, any eight from Part-II, and any two from Part-III.
The figures in the right hand margin indicate marks.

Part-I

Q1 Answer the following questions:

(2 x 10)

- Define a 'Financial Derivative'. State any two features of financial derivatives.
- Distinguish between a Forward Contract and a Futures Contract in two points.
- What is 'Cost of Carry'? Write the basic cost-of-carry formula for a futures price.
- What is 'Margin Requirement' in futures trading? Distinguish between Initial Margin and Maintenance Margin.
- Define a 'Call Option' and a 'Put Option'. What does it mean when an option is 'In-the-Money'?
- What is 'Put-Call Parity'? Write the put-call parity equation.
- What is 'Delta' in options pricing? What does a delta of 0.6 mean for a call option?
- What is a 'SWAP'? Name any two types of swaps.
- What is the key difference between a straddle and a strangle?
- What is a 'Currency Futures Contract'? How is it used to hedge foreign exchange risk?

Part-II

Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve)

(6 x 8)

- What are the main uses of derivatives: hedging, speculation, and arbitrage?
- What is 'Continuous Compounding'? A stock is priced at ₹ 500 today. The continuously compounded risk-free rate is 8 % per annum. Calculate the theoretical futures price for contracts expiring in: (a) 3 months, (b) 6 months, (c) 1 year
Use the formula: $F = S \times e^{(rT)}$. Given: $e^{0.02} = 1.0202$, $e^{0.04} = 1.0408$, $e^{0.08} = 1.0833$
- Explain the following option spread strategies with a brief diagram for each:
(a) Bull Spread using calls, (b) Bear Spread using puts, (c) Butterfly Spread.
- Explain the following option strategies with payoff diagrams and when an investor would use each: (a) Straddle, (b) Strangle
- Explain the payoff profiles of the following options strategies with diagrams:
(a) Long Call (b) Short Put For each, state the maximum profit, maximum loss, and breakeven point.

- f) What is the 'Optimal Hedge Ratio'? A company wants to hedge a portfolio worth ₹ 50,00,000. The portfolio's beta is 1.2 and the current Nifty futures price is ₹ 18,000 per unit (lot size = 50 units). Calculate the number of futures contracts needed to fully hedge the portfolio. Show your working.
- g) Explain 'Basic Hedging Practices' using futures. Distinguish between a Long Hedge and a Short Hedge with one example of each.
- h) Explain the Black-Scholes Option Pricing Model. State the assumptions of the model.
- i) Explain the features of a Forward Contract. What are the different classifications of forward contracts?
- j) What is 'Basis Risk' and how does it affect the effectiveness of a hedge?
- k) What is a 'Plain Vanilla Interest Rate Swap'?
Company A can borrow at Fixed 8 % or Floating MIBOR + 1 %. Company B can borrow at Fixed 10 % or Floating MIBOR + 0.5 %. Show how both companies can benefit by entering into a swap arrangement. Calculate the net savings for each party.
- l) The following data is available for a stock option:
Stock Price (S) = ₹ 80, Strike Price (K) = ₹ 75, Time to Expiry = 6 months, Risk-free Rate (r) = 10 % p.a. (continuously compounded), Stock Price goes UP to ₹ 90 or DOWN to ₹ 70. Using the ONE-STEP Binomial Model, calculate the price of a European Call Option.

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

- Q3 Explain the history, development, and growth of the Derivatives Market in India. What are the key factors that contributed to the growth of derivatives? Briefly describe the role of NSE and BSE in India's derivatives market. (16)
- Q4 Explain the concept of forward and futures contracts in detail with special reference to the role of margin, mark-to-market, and clearing house in futures trading, and practical applications of futures contracts in risk management. (16)
- Q5 Discuss the concept of options in financial derivatives with respect to Types of options (Call and Put), Factors affecting option pricing and Practical uses of options for hedging and speculation. (16)
- Q6 Discuss the concept of swaps in financial markets with special reference to Mechanism and structure of swap agreements, Concept of credit derivatives (Credit Default Swap), and Advantages and risks associated with swaps and credit derivatives. (16)

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Total Number of Pages: 02

Course: IMBA
Sub_Code: 16IMN803B

8th Semester Regular/Back Examination: 2025-26

SUBJECT: Advanced Management Accounting

BRANCH(S): IMBA

Time: 3 Hours

Max Marks: 100

Q.Code: V285

Answer Question No.1 (Part-I) which is compulsory, any eight from Part-II, and any two from Part-III.

The figures in the right-hand margin indicate marks.

Part-I

Q1 Answer the following questions:

(2 x 10)

- a) Define Cost Accounting.
- b) What is a Cost Centre?
- c) State any two differences between Financial Accounting and Management Accounting.
- d) What is meant by Variable Cost?
- e) Define Break-even Point.
- f) What is Job Costing?
- g) What are Joint Products?
- h) Define Budgetary Control.
- i) What is Standard Cost?
- j) What is EVA (Economic Value Added)?

Part-II

Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve)

(6 x 8)

- a) Explain the scope of Management Accounting.
- b) Classify costs with suitable examples.
- c) Explain Contract Costing and its features.
- d) Prepare a simple Cost Sheet and explain its components.
- e) Discuss the differences between Job Costing and Process Costing.
- f) Discuss the concept of Relevant Costing for decision-making.
- g) What is Activity-Based Costing (ABC)? Explain its advantages.
- h) Explain Functional Budgets and Master Budget.
- i) Describe Zero-Based Budgeting and its advantages.
- j) Explain Material Variance Analysis.
- k) Discuss Labour Variance Analysis.
- l) Explain the concept of Balanced Scorecard.

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

- Q3 a) Explain methods and techniques of costing in detail. (8 + 8)
b) Distinguish between Cost Unit, Profit Centre, and Investment Centre.
- Q4 a) From the following data, calculate Break-even Point and Margin of Safety: (8 + 8)
• Fixed Cost = ₹ 1,00,000
• Selling Price per unit = ₹ 50
• Variable Cost per unit = ₹ 30
• Actual Sales ₹ 5,00,000
b) Explain the significance of Break-even Analysis in managerial decisions.
- Q5 a) Why does a company go for variance analysis? What sorts of variances do they calculate? What are its utilities? (8 + 8)
b) Explain the role of Standard Costing in cost control.
- Q6 A company manufactures a product for which the **standard material requirement** and **actual data** for a period are given below: (4 x 4)
Standard Data (per unit of output):
• Material A: 5 kg @ ₹ 4 per kg
• Material B: 3 kg @ ₹ 6 per kg
Actual Data (for 1,000 units of output):
• Material A: 5,200 kg purchased and used @ ₹ 5 per kg
• Material B: 2,800 kg purchased and used @ ₹ 7 per kg
Calculate the following variances:
a) Material Cost Variance (MCV)
b) Material Price Variance (MPV)
c) Material Usage Variance (MUV)
d) Material Mix Variance (MMV)