

## MBA in DM Sem.-3 Examination

## Advanced Finance &amp; Analytics

Time : 2.30 Hours]

December-2025

[ Max.Marks : 70

Q1.] Amar Ltd is considering its New Product with the following details: [14]

Sr.No	Particulars	Figures
1	Initial Capital Cost	Rs.900 Cr
2	Annual Unit Sales	15 Cr
3	Selling Price per unit	Rs. 150
4	Variable cost per unit	Rs. 80
5	Fixed cost per unit	Rs. 150 Cr
6	Discount Rate	6%

Required:

- A. Calculate the NPV of the project.  
 B. Compute the impact on the project's NPV of a 2.5 percent adverse variance in each variable. Which variable is having maximum effect? Consider life of project as 5 years.

Q2.A] If investment proposal is Rs. 75,00,000 and risk-free rate is 5%, calculate Net Present Value under Certainty Equivalent Technique. [07]

Year	Expected cash flow (Rs.)	Certainty Equivalent coefficient
1	10,00,000	0.96
2	14,00,000	0.93
3	18,00,000	0.90
4	20,00,000	0.88
5	24,00,000	0.85
6	26,00,000	0.82
7	30,00,000	0.80

Q2.B] PQR Ltd. is considering a project "Mantra" with an initial outlay of Rs. 35,00,000 and the possible three cash inflow attached with the project as follows: [07]

Particular	Year 1	Year 2	Year 3	Year 4	Year 5
Worst case	700000	800000	900000	1000000	1100000
Most likely	900000	1000000	1100000	1250000	1400000
Best case	1100000	1200000	1350000	1500000	1700000

Assuming the cost of capital as 9%, determine NPV in each scenario. If PQR Ltd. is certain about the most likely result but uncertain about the third year's cash flow, analyse what will be the NPV expecting worst scenario in the third year.

OR

(P.T.O)

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Q2.] What are Trading Comps and Precedent Transaction Comps? Explain the steps involved in conducting each method and discuss the major differences between the two approaches. [14]

Q3. Write short notes on: [14]  
 A. Corporate Acquisition  
 B. Equity carve outs

OR

Q3.] Given below are the balance sheets of two companies as on 31<sup>st</sup> March, 2024 : [14]

Particulars	Note No.	Zenith Co. Ltd. Rs.	Nova Co. Ltd. Rs.
[A] Equity and Liabilities			
[1] Shareholders' Funds:			
(A) Share Capital :			
40,000 Equity Shares of Rs. 100 each.		40,00,000	
30,000 Equity Shares of Rs. 100 each.			30,00,000
(B) Reserves & Surplus:			
Reserves		2,46,000	
Profit & Loss A/c		4,80,000	1,50,000
[2] Current Liabilities:			
Creditors		10,54,000	6,28,000
Bills Payable			2,54,000
Total		57,80,000	40,32,000
[B] Assets:			
[1] Non-Current Assets:			
(A) Fixed Assets:			
Freehold Buildings		10,76,000	
Plant & Machinery		14,44,000	14,46,000
Goodwill			12,00,000
[2] Current Assets:			
Stock		9,48,000	2,54,000
Debtors		16,28,000	8,36,000
Cash and Bank Balance		6,84,000	2,96,000
Total		57,80,000	40,32,000

Both the companies decided to wound up, and to acquire the business of these two companies, a new company called Zenova Co. Ltd. was formed with share capital of Rs. 70,00,000 divided into Shares of Rs.100 each and 500 5% Debenture of Rs. 100 each.

All assets of Zenith Co. Ltd. except cash and bank balance were sold at following mentioned revalued figures: Freehold Building and Plant & Machinery after writing off 20% and stock after increasing 10% value. New Company agreed to pay to creditors of Zenith Co. Ltd.

All assets of Nova Co. Ltd. were purchased by New Company with the exception of cash and bank balance. In assets Goodwill was valued at Rs. 6,00,000 and Plant & machinery at Rs. 8,00,000 whereas remaining

assets were taken over at their book values. Liabilities were taken over at book value by the New Company.

The consideration in case of Zenith Co. Ltd. was paid by 20,000 shares, 250 debentures and balance in cash, while in case of Nova Co. Ltd. 14,000 shares, 250 debentures and the balance was paid in cash.

The remaining shares of the New Company were issued to public at a premium of 10% and all these shares were subscribed for and were fully paid.

Pass necessary opening journal entries in the books of the New Company and also prepare its balance sheet.

- Q4.] What is a time series? Elaborate on its major components, explain the importance of time series analysis in business and economics, and discuss the key characteristics that define a good time series. [14]
- OR
- Q4.] Write Short Notes: [14]
- A. Bankruptcy Modelling – Beaver's t-Test Approach
- B. Value at Risk (VaR)
- Q5.] Answer the following questions: [14]
- I. Shares of XYZ Technologies Ltd. are priced at ₹220 in the market. The expected dividend per share next year is ₹11, and the dividends are projected to grow at a constant rate of 6% every year. Calculate the cost of equity ( $K_e$ ).
  - II. Alpha Engineering Ltd. has issued 9% Debentures worth ₹1,20,00,000. The firm falls under a 45% tax bracket. Calculate the cost of debt after tax.
  - III. What is the purpose of scenario analysis in project evaluation?
  - IV. What are real options in capital budgeting?
  - V. What is a leverage buyout (LBO)?
  - VI. What does Altman's Z-score predict?
  - VII. What is the purpose of decision trees in credit risk modelling?
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