

## Model Question Paper Financial Management - I (MSF1B3)

- Answer all 72 questions.
- Marks are indicated against each question.

Total Marks

1. Which of the following players can act as a borrower as well as a lender in the call money market?
  - (a) LIC
  - (b) SBI Mutual Fund
  - (c) State Bank of India
  - (d) ICICI
  - (e) NABARD.

( 1 mark )
2. Which of the following is **not true** with regard to valuation of bonds?
  - (a) An increase in the required rate of return, will decrease the bond value
  - (b) An increase in the number of years to maturity, will increase the present value of the face value of the bond payable at maturity
  - (c) An increase in the coupon rate, will increase the bond value
  - (d) An increase in the face value of the bond payable at maturity, will increase the bond value
  - (e) An increase in yield to maturity will occur if the amount payable at maturity increases, will increase the bond value.

( 1 mark )
3. The doubling period for Kisan Vikas Patra is 7 years and 3 months. The rate of interest that can be calculated from the rule of 69 is
  - (a) 9.00%
  - (b) 9.50%
  - (c) 10.00%
  - (d) 10.50%
  - (e) 11.00%.

( 1 mark )
4. The quick ratio is a type of
  - (a) Liquidity ratio
  - (b) Profitability ratio
  - (c) Leverage ratio
  - (d) Turnover ratio
  - (e) Valuation ratio.

( 1 mark )
5. A type of analysis in which the items of the balance sheet are expressed as percentage of total assets and the items of the income statement are expressed as percentages of the net sales, is known as
  - (a) Time series analysis
  - (b) Common size analysis
  - (c) Du Pont analysis
  - (d) Cross-sectional analysis
  - (e) Financial ratio analysis.

( 1 mark )
6. If the debt-equity ratio increases, then the degree of operating leverage
  - (a) Reduces
  - (b) Increases
  - (c) Remains unchanged
  - (d) Becomes zero
  - (e) Changes unpredictably.

( 1 mark )
7. The Everyman Finance Ltd.(EFL) is offering a deposit scheme in which the investor is required to deposit Rs.100 at the end of every month for a period of two years and six months and EFL will pay a sum of Rs.3,500 on the due date. The effective annual rate of return from the above deposit scheme is
  - (a) 10.00%
  - (b) 12.50%

- (c) 14.00%
- (d) 13.22%
- (e) 17.50%. ( 2 m:

8. If the slope of the Security Market Line is zero then, which of the following alternatives is **true**?

- (a) Beta is equal to zero
- (b) Risk free return = Market return = Expected return of the given security
- (c) The returns on the given security are not correlated with the returns on the market
- (d) Risk free rate of return  $\neq$  Market return
- (e) Market return  $\neq$  Expected return of the given security. ( 1 n

9. Given total debt-equity ratio is 5:4; total assets is Rs.4,500; short-term debt is Rs.600 and if total debt consists only of long-term debt and short-term debt, the long-term debt is equal to

- (a) Rs.1,567
- (b) Rs.1,900
- (c) Rs.2,167
- (d) Rs.2,500
- (e) Rs.2,833. ( 1 n

10. If the beta of a stock is 1.63 and the standard deviation of the return on the market is 16.25%, then the covariance of returns of the stock and market is

- (a) 99.39%<sup>2</sup>
- (b) 162.00%<sup>2</sup>
- (c) 250.02%<sup>2</sup>
- (d) 430.42%<sup>2</sup>
- (e) 701.59%<sup>2</sup>. ( 1 n

11. Rajesh Electricals Ltd. (REL) paid dividend of Rs.3 for the year. The dividend has been growing at a constant rate of 12%. If the present market price of the stock is Rs.60, the required rate of return on the stock is

- (a) 8.20%
- (b) 12.35%
- (c) 14.63%
- (d) 15.28%
- (e) 17.60%. ( 1 n

12. If net profit margin is 10%, asset turnover ratio is 1.2 and return on networth is 18%, then the debt-asset ratio is

- (a) 0.25
- (b) 0.33
- (c) 0.50
- (d) 0.67
- (e) 0.72. ( 2 m:

13. Which of the following is a source of cash, in a funds flow statement drawn on cash basis?

- (a) Increase in inventory
- (b) Decrease in accrued taxes
- (c) Increase in receivables
- (d) Repayment of short-term bank loan
- (e) Increase in accounts payable. ( 1 n

14. Which of the following is a non- diversifiable risk?

- (a) Lock-out in a company due to workers demanding a wage hike
- (b) Recession in the economy
- (c) Lack of strategy for the management of a company
- (d) A change in the product portfolio of a company
- (e) Entry of new competitors into the market. ( 1 n

15. Which of the following statement(s) is/are **true**?

- I. Current yield is equal to the coupon rate if the market price is equal to the face value of the bond.
- II. Other things remaining the same, current yield will be higher than YTM if the bond is selling at a premium.
- III. Other things remaining the same, current yield will be lower than YTM if the bond is selling at a discount.

- (a) Only (I) above
- (b) Only (II) above
- (c) Both (I) and (III) above
- (d) Both (II) and (III) above
- (e) All (I), (II) and (III) above. (1 n

16. Consider the following data regarding a deep discount bond issued by Glory Enterprises Ltd:

Face value and maturity value of a deep discount bond = Rs.1,00,000  
Time period of redemption = 15 years  
Yield to maturity = 14% p.a.

Issue price of the bond is

- (a) Rs.10,367
- (b) Rs.12,415
- (c) Rs.14,010
- (d) Rs.22,460
- (e) Rs.26,084. (1 n

17. Which of the following items is considered while preparing funds flow statement on working capital basis?

- (a) Increase in pre-paid expenses
- (b) Payment of dividend
- (c) Decrease in sundry creditors
- (d) Decrease in provision for tax
- (e) Increase in sundry debtors. (1 n

18. Which of the following statements is/are **true** regarding the degree of financial leverage (DFL)?

- I. It measures the financial risk of the firm.
- II. It is undefined at financial break even point.
- III. DFL will be positive for all values of EBIT that are above financial break-even point.
- IV. As EBIT increases above the financial break-even point, the DFL will start declining and will reach a limit of 1.

- (a) Only (I) above
- (b) Both (I) and (II) above
- (c) Both (III) and (IV) above
- (d) (I), (II) and (III) above
- (e) All (I), (II), (III) and (IV) above. (1 n

19. Following is the probability distribution of rates of return of a stock:

Return (%)	10	- 12	- 15	20
Probability	0.30	0.10	0.20	0.40

The expected rate of return from the stock is

- (a) 6.8%
- (b) 9.2%
- (c) 15.2%
- (d) 16.4%
- (e) 16.6%. (1 n

20. Mr. Anil Sharma is planning to purchase a house which costs Rs.8,00,000. He has contacted City Housing Finance Ltd. (CHFL) for finance. CHFL has offered 100% financing for a period of 7 years. CHFL is charging at an interest rate of 11% compounded quarterly. How much should Mr. Sharma repay in equated monthly installments at the end of every month over a period of 7 years?

- (a) Rs.11,602
- (b) Rs.12,474
- (c) Rs.13,665
- (d) Rs.13,926
- (e) Rs.15,500. (2 m

21. Which of the following statements is **false**?

- (a) A sole proprietorship firm is inexpensive to set up
- (b) Death of one of the partners may result in the dissolution of the partnership firm
- (c) The minimum number of persons required to form a private company is 2, whereas it is 3 in case of a public company
- (d) The maximum number of members in a private limited company cannot exceed 50
- (e) The ability to raise funds is limited for a partnership firm whereas for a public company it is substantial. (1 m)

22. Which of the following statements is/are true?

- I. Other things remaining the same, as the expected growth rate in dividend increases, the expected return depends more on the capital gain yields and less on the dividend yield.
- II. Other things remaining the same, the price-earning ratio decreases as the expected growth rate in dividend increases.
- III. High dividend yield and low price-earning ratio imply limited growth prospects.

- (a) Only (I) above
- (b) Only (III) above
- (c) Both (I) and (III) above
- (d) Both (II) and (III) above
- (e) Both (I) and (II) above. (1 m)

23. The face value of the equity share of Blue Sky Ltd. is Rs.100 and the current market price of the share is Rs.80. The company is expected to declare a dividend of 20% during the current year. If the dividends are expected to decline at the rate of 10% p.a., then, the expected rate of return on the shares is

- (a) 8.0%
- (b) 12.5%
- (c) 17.5%
- (d) 32.0%
- (e) 37.5%. (2 m)

24. Consider the following information:

Quantity produced	–	1,000 units
Variable cost per unit	–	Rs.47,500
Selling price per unit	–	Rs.60,000
Fixed cost	–	Rs.50 lakh
Interest	–	Rs.20 lakh
Preference dividend	–	Rs.15 lakh
Tax rate	–	40%

The financial break even point is reached when the EBIT is at a level of

- (a) Rs.20 lakh
- (b) Rs.35 lakh
- (c) Rs.45 lakh
- (d) Rs.50 lakh
- (e) Rs.75 lakh. (2 m)

25. Which of the following is/are statistical method (s) of sales forecasting?

- I. Jury of executive opinion.
- II. Sales force estimates.
- III. Regression analysis.
- IV. Trend analysis.

- (a) Only (II) above
- (b) Both (I) and (II) above
- (c) Both (II) and (III) above
- (d) Both (III) and (IV) above
- (e) (I), (III) and (IV) above. (1 m)

26. The projected returns from the shares of Smitha Industries Ltd. (SIL) and the returns from the market portfolio with their probability are given below:

Probability	Returns (%)	
	SIL share	Market portfolio

0.30	10	15
0.30	20	20
0.40	30	25

The risk of the SIL share is

- (a) 5.026%
- (b) 7.115%
- (c) 8.307%
- (d) 15.118%
- (e) 82.010%.

( 2 m

27. Which of the following is **true** with respect to Commercial Papers (CPs)?

- (a) These are issued in multiples of Rs.1 lakh
- (b) The minimum amount to be invested by a single investor is Rs.5 lakhs
- (c) The minimum maturity period is 30 days
- (d) The issuer cannot buy back these instruments
- (e) These can be raised upto the extent of 80% of working capital limit.

( 1 n

28. If the net profit margin is 8%, retention ratio is 60%, asset to equity ratio is 1.5 and sales turnover ratio is 0.75, the rate of sustainable growth with internal equity will be

- (a) 3.47%
- (b) 3.73%
- (c) 5.12%
- (d) 5.71%
- (e) 6.84%.

( 2 m

29. Mr. Chokalingam wishes to purchase a 364 day T-bill of face value Rs.100, maturing after 160 days. If Mr.Chokalingam wants to earn a yield of 9.5%, the purchase price for him should be

- (a) Rs.90.50
- (b) Rs.91.24
- (c) Rs.94.88
- (d) Rs.96.00
- (e) Rs.96.50.

( 1 n

30. In which of the following types of issues, does the amount of share capital increase without an increase in the networth of the company?

- (a) Public issue
- (b) Rights issue
- (c) Bought-out deal
- (d) Bonus issue
- (e) Private placement.

( 1 n

31. If the current assets and current liabilities are Rs.1,500 lacs and Rs.1,200 lacs respectively, the amount of short-term borrowings that has to be repaid to increase the current ratio to 1.5 is

- (a) Rs. 50 lakh
- (b) Rs.100 lakh
- (c) Rs.125 lakh
- (d) Rs.150 lakh
- (e) Rs.200 lakh.

( 1 n

32. The inventory turnover ratio of M/s Jaina Automobiles Ltd. is 5 times and cost of goods sold is Rs.5,50,000 per annum. If the opening stock is Rs.120,000, the closing stock is

- (a) Rs. 80,000
- (b) Rs. 90,000
- (c) Rs.1,00,000
- (d) Rs.1,20,000
- (e) Rs.1,80,000.

( 2 m

33. The capital structure of Eastern Industries Ltd. (EIL) consists of the following:

(Rs. in crore)

_____	_____
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Equity share capital (20 lakh shares at par value)	2
Reserves and surplus	1
Preference share capital (1 lakh shares at par value)	1
Non-convertible debentures (4 lakh debentures at par value)	4
Term loan	4

The rate of dividend on the preference shares is 12 percent. The debentures carry a coupon rate of 9 percent. The rate of interest on the term loan is 11 percent. The tax rate applicable to EIL is 35 percent.

It is expected that by the end of the current financial year EIL will achieve sales of Rs.30 crore. The total cost for the current financial year is expected to be Rs.22 crore, which includes variable costs of Rs.18 crore and fixed costs of Rs.4 crore. The DOL and DTL of the firm are

- (a) 1.20; 1.80
- (b) 1.32; 1.96
- (c) 1.41; 1.70
- (d) 1.50; 1.71
- (e) 1.58; 2.11.

(3 marks)

34. A type of analysis in which the financial ratios of a firm are compared with the industry averages under normal business conditions is known as

- (a) Time series analysis
- (b) Common size analysis
- (c) Du Pont analysis
- (d) Cross-sectional analysis
- (e) Financial ratio analysis.

(1 mark)

35. Which of the following is an assumption in the Capital Asset Pricing Model (CAPM)?

- (a) Assets can be traded only in multiples of a minimum number of units determined by the government
- (b) Taxes influence the investment decision
- (c) Transaction costs are negligible
- (d) Investors prefer to take risk
- (e) Investors make their investment decisions on the basis of a multiperiod time horizon.

(1 mark)

36. The net worth and total debt of Ideal Furnishers Ltd. are Rs.300 lakh and Rs.500 lakh respectively. The EBIT and PAT of the company are Rs.160 lakh and Rs.20 lakh respectively. The earning power of the company is

- (a) 3.50%
- (b) 9.33%
- (c) 18.00%
- (d) 20.00%
- (e) 53.33%.

(1 mark)

37. For which of the following purposes capital structure ratios are useful?

- (a) To assess the long term solvency of a firm
- (b) To examine the present liquidity position of a firm
- (c) To measure the effectiveness of utilization of capital by a firm
- (d) To assess the profitability of the investment in the firm
- (e) To assess the efficiency of collection of amounts due to the firm.

(1 mark)

38. The data on the current assets and current liabilities of Swaroopa Ltd. for the financial year 2007-08 are given below:

(Rs. in

lakh)

	Debtors	Cash balance	Inventory	Current liabilities
Beginning	80	50	10	40
Closing	100	60	25	35

What is the change in net working capital?

- (a) Rs.10 lakh
- (b) Rs.15 lakh

- (c) Rs.20 lakh
- (d) Rs.25 lakh
- (e) Rs.50 lakh. (1 n

39. In which of the following conditions will the degree of total leverage of a firm be zero?

- (a) The firm has no debt
- (b) The firm has redeemed all the preference shares issued by it
- (c) The sales revenues of the firm are just enough to meet the variable expenses
- (d) The earnings of the firm are exempt from tax
- (e) The fixed cost of the firm is equal to its contribution. (1 n

40. Santhosh Pharma Ltd. recently issued preference shares to redeem its outstanding debentures. The rate of preference dividend is same as the coupon rate on the debentures. How will the Degree of Financial Leverage (DFL) of the firm be affected?

- (a) It will increase
- (b) It will decrease
- (c) It will remain constant
- (d) It will become zero
- (e) The effect on DFL cannot be predicted. (1 n

41. The Fair And Smile Ltd. issued debentures with face value Rs.100 at a coupon rate of 10 percent payable semi-annually. The debenture will be redeemed in two equal annual installments; the first installment will be payable at the end of five years and six months from now, and the second installment will be payable at the end of six years and six months from now. Ms. Julie wants to buy the debenture and her required rate of return is 12%. What is the fair price for which she can buy the debenture?

- (a) Rs. 90.55
- (b) Rs. 91.63
- (c) Rs. 92.41
- (d) Rs. 97.50
- (e) Rs.102.64. (2 m

42. Which of the following is true?

- (a) Effective rate of interest is always lower than the nominal interest rate
- (b) The effective rate of interest increases with increase in the frequency of compounding
- (c) The nominal interest rate increases with increase in the frequency of compounding
- (d) The effective and nominal interest rates are equal if the frequency of compounding is less than 4
- (e) The frequency of compounding does not affect the effective and nominal interest rates. (1 n

43. Who among the following players in the international capital markets collect the rupee dividends on the underlying shares and repatriate the same to the depository in US dollars/foreign equity?

- (a) Lead Managers
- (b) Underwriters
- (c) Custodian
- (d) Corporate borrowers
- (e) Lenders. (1 n

44. Which of the following will decrease with an increase in the interest rate?

- (a) Future Value Interest Factor
- (b) Future Value Interest Factor For Annuity
- (c) Capital Recovery Factor
- (d) Present Value Interest Factor for a perpetual annuity
- (e) Inverse of Present Value Interest Factor For Annuity. (1 n

45. M/s Nagarjuna Chemicals Ltd. is able to sell their securities in the secondary market only with substantial price concession. The risk associated with the security can be termed as

- (a) Interest rate risk
- (b) Market risk
- (c) Business risk
- (d) Financial risk
- (e) Liquidity risk. (1 n

46. Which of the following euro instruments is a medium-term legally binding commitment under which a borrower can issue short-term paper, of up to one year?

- (a) Note Issuance Facilities (NIFs)
- (b) Commercial paper
- (c) Straight debt bonds
- (d) Floating Rate Notes (FRNs)
- (e) Medium-term notes.

(1 n

47. Sterling denominated foreign bonds raised in the United Kingdom's domestic securities market is known as

- (a) Samurai Bonds
- (b) Yankee Bonds
- (c) Bulldog Bonds
- (d) Shibosai Bonds
- (e) Matador Bonds.

(1 n

48. M/s. Adarsh Finance Ltd. has outstanding equity share capital of Rs.2 lakh of face value Rs.20 per share. The net income of the company for the year is Rs.50,000. If the dividend pay-out (DP) ratio is 40% and the market price of the share is Rs.50, the dividend yield is

- (a) 4%
- (b) 8%
- (c) 10%
- (d) 12%
- (e) 16%.

(1 n

49. The probability distribution of returns of stock of M/s. Arundhathi Ltd. and the returns on market are given below:

Probability (P)	Returns of stock of M/s. Arundhathi Ltd. (in %)	Market returns (in %)
0.30	7	9
0.35	8	5
0.15	14	10
0.20	16	14

The variance associated with the market returns is  $10.6875(\%)^2$ . The risk-free rate of return is 6%. According to CAPM, the risk premium for the stock of M/s. Arundhathi Ltd. is

- (a) 1.77%
- (b) 2.43%
- (c) 2.56%
- (d) 2.72%
- (e) 3.39%.

(2 m

50. Mr. Vaibhav purchased a coupon-bearing debenture of the face value Rs.100 for Rs.110. After one year he sold the security for Rs.115. If the holding period return on this debenture is 15%, the annual amount of coupon received on the debenture is

- (a) Rs. 5.0
- (b) Rs. 8.0
- (c) Rs. 9.5
- (d) Rs.10.0
- (e) Rs.11.5.

(2 m

51. Consider the following particulars of Murugan Spares Ltd. The average collection period is 60 days and the average accounts receivables of the company is Rs.45,000. The annual sales for the company, assuming 360 days in a year, is

- (a) Rs.2,40,000
- (b) Rs.2,70,000
- (c) Rs.2,82,000
- (d) Rs.3,15,000
- (e) Rs.3,40,000.

(1 n

52. M/s. Ammolya Ayurveda Pharmaceuticals Ltd. issued par value bonds of Rs.1,000 each with maturity value of



Rs.1,050 and a coupon rate of 12%. If the current market price of the bond is Rs.950 and the YTM of the bond is 14%, the remaining maturity period of the bond is

- (a) 4.0 years
- (b) 4.5 years
- (c) 5.1 years
- (d) 5.6 years
- (e) 6.0 years.

( 2 m:

53. The following data pertain to Dutta Tin Works Ltd.:

Preference dividend	Rs.30,000
Corporate tax rate	40%
Interest	Rs.65,000
Fixed expenses	Rs.6,00,000
Selling price per unit	Rs.900
Variable cost per unit	Rs.400

The level of output at which DTL will be undefined is

- (a) 1480 units
- (b) 1430 units
- (c) 1390 units
- (d) 1366 units
- (e) 1354 units.

( 1 n

54. Hyderabad Micro Finance Ltd. is accepting small deposits from its members offering an effective interest rate of 10.6% p.a. If the interest is compounded at four-month intervals, the nominal interest rate on the deposit is

- (a) 9.75%
- (b) 10.00%
- (c) 10.25%
- (d) 10.40%
- (e) 10.50%.

( 2 m:

55. The Warriar Bank Ltd. is expected to realize Rs.35 crores by liquidating all the assets. The amount to be paid to its depositors is Rs.30 crores. If there are 75 lakh equity shares and the networth of the firm is Rs.13 crores, the liquidation value per share of the bank is

- (a) Rs. 6.67
- (b) Rs.10.00
- (c) Rs.12.00
- (d) Rs.16.67
- (e) Rs.17.33.

( 2 m:

56. The following information is related to M/s. Delta Ltd. for the year 2007-08:

Current ratio	1.5
Quick ratio	1.3
Net working capital	Rs.10,00,000

The average inventory is

- (a) Rs. 3,00,000
- (b) Rs. 3,50,000
- (c) Rs. 4,00,000
- (d) Rs. 8,00,000
- (e) Rs.10,00,000.

( 2 m:

57. Consider the following information regarding Excel Engineering Ltd. The current year sales are Rs.30 lakh and net profit Rs.4.5 lakh. The sales are expected to increase next year by 30%. The firm's profit margin and the dividend pay-out ratio (DP) of 40% will be maintained in the next year. If they want to maintain the debt-equity ratio at the existing level of 1.75 without resorting to any external equity, the increase in the borrowings will be

- (a) Rs.2.63 lakhs
- (b) Rs.3.51 lakhs
- (c) Rs.4.90 lakhs
- (d) Rs.6.14 lakhs

(e) Rs.7.25 lakhs. (2 m)

58. M/s. Gwalior Textiles Ltd. issued fully convertible debentures of face value Rs.100 each with a coupon rate of 10% p.a. The debentures will be converted into 2 equity shares of Rs.50 each at the end of one year. If the expected share price at the end of one year is Rs.60 and the required rate of return is 15%, the value of convertible is (correct to rupee)

- (a) Rs. 98
- (b) Rs. 113
- (c) Rs. 116
- (d) Rs. 125
- (e) Rs. 142.

(2 m)

59. Consider the following data regarding M/s. Surya Ltd. for the year 2007-08:

Cost of goods sold : Rs.39,00,000  
Gross profit margin : 25%  
Average receivables turnover ratio : 5  
Quick assets : Rs.18,00,000

The cash balance is (Assume the entire sales as on credit)

- (a) Rs. 2,75,000
- (b) Rs. 7,60,000
- (c) Rs. 9,20,000
- (d) Rs.10,40,000
- (e) Rs.10,70,000.

(2 m)

60. Which of the following statements is **true**, in case of a direct quote?

- (a) Exchange margin is to be added to the bid rate and ask rate
- (b) Exchange margin is to be added to the bid rate and deducted from the ask rate
- (c) Exchange margin is to be deducted from the bid rate and the ask rate
- (d) Exchange margin is to be deducted from the bid rate and added to the ask rate
- (e) Exchange margin is to be added to the bid rate only.

(1 m)

61. Ms. Renuka places an order with a broker in the stock exchange to sell 500 shares of Manyata Ltd. at a minimum price of Rs.215 per share including brokerage charges of 1%. Such an order is referred to as

- (a) Limited discretionary order
- (b) Best rate order
- (c) Immediate order
- (d) Limit order
- (e) Stop loss order.

(1 m)

62. While preparing Fund Flow Statement on total resources basis, the fund from operation is to be computed. In this aspect which of the following item is to be deducted from the net profit?

- (a) Preliminary expenses written off
- (b) Transfer to reserves
- (c) Proposed dividends
- (d) Profit on sale of investments
- (e) Loss on sale of fixed assets.

(1 m)

63. Which of the following **cannot** be inferred from a funds flow analysis?

- (a) Liquidity
- (b) Acquisition of non current assets
- (c) External funds utilized
- (d) Pattern of financing
- (e) Management quality.

(1 m)

64. Oriental Spices and Exports Ltd. presently pays a dividend of Rs.3 per share. The dividend is expected to grow at the rate of 4% for the next four years and then at a constant rate of 3% for ever. If the required rate of return is 10% and the holding period infinite, the value of share one can pay now is

- (a) Rs.10.45
- (b) Rs.35.18

- (c) Rs.45.62
- (d) Rs.51.50
- (e) Rs.55.68.

( 2 m:

65.The current assets and liabilities of Swaraj Industries Ltd. are Rs.100 lakh and Rs.60 lakh respectively. During the current year fixed assets worth Rs.20 lakh are purchased, new shares are issued for Rs.25 lakh, bills receivable worth Rs.2,00,000 are dishonored and Rs.3,00,000 cash is collected from customers. The current ratio will

- (a) Increase to 1.67
- (b) Decrease to 1.53
- (c) Increase to 1.75
- (d) Decrease to 1.25
- (e) Have no change.

( 1 n

66.Consider the following data regarding M/s.Neeraj Distilleries Ltd. for the year 2007-2008:

Particulars	Rs.lakhs
Retained earnings	40
Interest earned on investments	12
Amortization of copy rights written off	10
Depreciation	8
Dividends	20
Preliminary expenses written off	10

Funds from operations of M/s. Neeraj Distilleries Ltd. during the year was

- (a) Rs. 40 lakhs
- (b) Rs. 42 lakhs
- (c) Rs. 76 lakhs
- (d) Rs. 82 lakhs
- (e) Rs.100 lakhs.

( 2 m:

67.The Sabari Power Projects Ltd. issued bonds with the following features to finance its new project in Kerala:

Face value of the bond	Rs.5,000
Coupon per annum	10%
Issued at a discount of	10%
Redemption at a premium of	5%.

Mr. Hariharan purchased the bond from the secondary market. If the current yield of the bond is 8.33%, it is trading at a

- (a) Discount of 12%
- (b) Discount of 16.67%
- (c) Premium of 20%
- (d) Premium of 16.67%
- (e) Premium of 30%.

( 2 m:

68.Seven Seas Investment Corporation holds the following portfolio:

Stock	Investment (Rs. Crores)	Beta
Arati Ltd.	400	0.5
Bharati Ltd.	400	2
Chathuri Ltd.	200	4

The required rate of return on the market is 14% and that of the above portfolio according to CAPM is 20.4%.

The fund manager has proposed to sell stock of Chathuri Ltd. for Rs.200 crores and use the proceeds to purchase stock of Devaki Ltd. which has a beta of 3. The required rate of return of the new portfolio according to CAPM is

- (a) 12.8%
- (b) 18.1%
- (c) 18.8%
- (d) 20.2%
- (e) 21.3%.

( 2 m:

69.Ms. Lovely is considering investing in the equity shares of Confident Smile Tooth Paste Limited. She gathers the following information on the equity shares of the company:

Return on the stock when the market return is zero	4%
Rate of return on the market	7%
Beta of the shares	1.5
Expected Earnings per share next year	Rs.3
Pay-out ratio	60%
Current market price of the share	Rs.40

Ms. Lovely expects the earnings of the company to grow at a constant rate and the pay-out ratio to remain constant.

If the equity share is in market equilibrium according to the Single-index model, the expected price of the share at the end of five years will be (correct to the nearest rupee)

- (a) Rs.35
- (b) Rs.45
- (c) Rs.58
- (d) Rs.64
- (e) Rs.72.

( 2 m:

70. Which of the following points can be considered as the starting point of financial forecasting?

- (a) Forecasting material requirements
- (b) Forecasting man power requirements
- (c) Forecasting financial requirements
- (d) Forecasting sales volume
- (e) Forecasting assets requirements.

( 1 n

71. On September 26, 2008, the BSE sensx was at 13700 points. With the expectation of a bullish trend in the near future, an analyst projected the expected value of sensx by the end of next six months as:

Sensex	13978	14163	14348
Probability	0.3	0.4	0.3

What is the expected annualized return from the market? (Round off your answer)

- (a) 4.50%
- (b) 5.23%
- (c) 6.76%
- (d) 9.31%
- (e) 11.66%.

( 2 m:

72. The shares of Hyderabad Jewelry Ltd. (HJL) is presently trading at a price of Rs.10 per share. The expected dividend by the end of the year is Re.1.00 per share while the appreciations of the share price of HJL vis-à-vis the Nifty (Presently at 3800) are projected by the analysts as follows:

Price (Rs.)	10	11	12
Nifty	4370	4750	5130
Probability	0.3	0.4	0.3

What is the beta value for the shares of Hyderabad Jewelry Ltd.?

- (a) 0.50
- (b) 1.00
- (c) 1.25
- (d) 1.50
- (e) 1.75.

( 3 m:

END OF QUESTION PAPER

## Suggested Answers Financial Management - I (MSF1B3)

- |    | <b>ANSWER</b> | <b>REASON</b>  |
|----|---------------|--|
| 1. | C             | Commercial banks can act both as lenders and borrowers in the call money market but the financial institutions like LIC, mutual funds, ICICI, and NABARD can act only as lenders in the market   |
| 2. | B             | In the intrinsic value formula the face value of the bond is multiplied with the factor PVIF(r,n). The factor PVIF(r,n) decreases as the number of years to maturity increases, other things remaining the same. Hence, other things remaining the same, the present value of the face value of the bond decreases as the number of years to maturity increases. Therefore alternative (b) is not true. All other alternatives are true  |
| 3. | C             | $\text{According to the rule of 69, the doubling period} = 0.35 + \frac{69}{\text{interest rate}}$ $\text{Doubling period of Kisan Vikas Patra} = 7 \text{ years} + 3 \text{ months}$ $= 7 + \frac{3}{12} = 7.25 \text{ years.}$<br>$\therefore 7.25 = 0.35 + \frac{69}{\text{interest rate}}$ $\text{or } 6.9 = \frac{69}{\text{interest rate}}$ $\text{or interest rate} = \frac{69}{6.9} = 10\%$  |
| 4. | A             | Quick ratio is a type of Liquidity Ratio. It is the ratio of current assets excluding inventory to current liabilities.  |
| 5. | B             | The Common-size Analysis is used to find out the proportion that a single item represents of total group or sub-group. In a Balance Sheet, the assets as well as liabilities and capital are expressed as 100 per cent and each item in these categories is expressed as a percentage of the respective totals. Similarly, in the income statement, net sales are set at 100 per cent and every other item in the statement is expressed as a percentage of net sales.                     |
| 6. | C             | Degree of operating leverage (DOL)<br>$= \frac{\text{Sales} - \text{Variable costs}}{\text{Sales} - \text{Variable costs} - \text{Fixed costs}}$ The variable and fixed costs do not include any financial costs. Hence the DTL remains unchanged if the debt-equity ratio increases   |
| 7. | D             | Amount to be deposited at the end of every month = Rs.100<br>Number of months for which money has to be deposited = $2 \times 12 + 6 = 30$<br>Maturity value = Rs.2500<br>Therefore $100 \times \text{FVIFA}(K,30) = 3500$<br>at 1% LHS = Rs. 3478.50<br>at 1.5% LHS = Rs. 3753.87<br><br>By interpolation = $1 + \left[ \frac{3500 - 3478.50}{3753.87 - 3478.50} \right] \times 0.50$<br>$i = 1.04\%$ .<br><br>The effective annual rate of return is $(1 + 0.0104)^{12} - 1 = 13.22\%$ . |
| 8. | B             | According to the SML equation:<br>$k_j = R_f + \beta_j (k_m - R_f)$<br>The slope is $(k_m - R_f)$ . When the slope is zero, $k_j = R_f + 0 = R_f$  |

Further,  $k_m - R_f = 0$  implies that  $k_m = R_f$

$$\therefore R_f = k_m = k_j$$

i.e. Risk free rate of return = Market return = Expected return of the given security

9. B 
$$\frac{\text{Total debt}}{\text{Equity}} = \frac{5}{4}$$
 Adding 1 to both sides of the equation we get:

$$\frac{\text{Total debt}}{\text{Equity}} + 1 = \frac{5}{4} + 1 \text{ or } \frac{\text{Total debt} + \text{equity}}{\text{Equity}} = \frac{5+4}{4} \text{ or } \frac{\text{Total asset}}{\text{Equity}} = \frac{9}{4}$$

$$\text{From above, Equity} = \frac{\text{Total asset} \times 4}{9} = \frac{4500 \times 4}{9} = \text{Rs.2,000}$$

Now, total assets = Total debt + equity = Rs.4,500 or

$$\text{or, Total debt} + 2000 = 4500 \text{ or}$$

$$\text{or, Total debt} = 4500 - 2000 = \text{Rs.2,500}$$

$$\therefore \text{Long term debt} = \text{Total debt} - \text{Short term debt} = 2500 - 600 = \text{Rs.1,900.}$$

10. D 
$$\beta = \frac{\text{Cov}(i, m)}{\sigma_m^2}$$

$$\text{or, Cov}(im) = \beta \cdot \sigma_m^2 = 1.63 (16.25)^2 = 430.42\% ^2$$

11. E 
$$\text{Required rate of return on the stock} = \frac{D_1}{P_0} + g = \frac{D_0(1+g)}{P_0} + g = \frac{3(1.12)}{60} + 0.12$$
  

$$= 0.176 \text{ i.e. } 17.6\%$$

12. B 
$$\text{Return on net worth} = \text{Net profit margin} \times \text{Asset turnover} \times \frac{\text{Assets}}{\text{Equity}}$$

$$\text{or } 0.18 = 0.10 \times 1.2 \times \left( \frac{\text{Assets}}{\text{Equity}} \right)$$

$$\text{or } \frac{\text{Assets}}{\text{Equity}} = \frac{0.18}{0.10 \times 1.20} = 1.5$$

$$\therefore \frac{\text{Equity}}{\text{Assets}} = 0.667$$

$$1 - \frac{\text{Equity}}{\text{Assets}} = \frac{\text{Assets} - \text{Equity}}{\text{Assets}} = \frac{\text{Debt}}{\text{Assets}} = 1 - 0.667 = 0.333 \approx 0.33$$

13. E Alternatives, (a), (b), (c) and (d) represents uses of cash. Alternative (e) i.e increase in accounts payable is a source of cash in the fund flow statements drawn on cash basis.

14. B Alternatives (a), (c), (d) and (e) represent risk factors which are specific to the firm and can be diversified away. Recession in the economy is not a firm specific risk, hence, it is a non-diversifiable risk.

15. E 
$$\text{Current yield} = \frac{\text{Coupon amount}}{\text{Market price}}$$

$$\text{Coupon rate} = \frac{\text{Coupon amount}}{\text{Face value}}$$

When current yield and coupon rates are same, the market price of the bond is equal to its face value. Hence statement (I) is true. When the bond is selling at a premium the current yield will be higher than the

YTM and when the bond is selling at a discount the current yield will be less than YTM. Hence statements (II) and (III) are true.

16. C 
$$\text{Issue price} = \frac{1,00,000}{(1.14)^{15}} = \text{Rs.}14,010.$$
17. B Alternatives (a), (c), (d) and (e) will either cause an equal increase in current assets and current liabilities or an increase in one current asset and decrease in another current asset by the same amount or an equal decrease in current liabilities and current assets or a decrease in one current liability and increase in another current liability by the same amount. These will not cause any change in the working capital position. Hence, these are not considered while preparing funds flow statement on working capital basis
18. E DFL measures the financial risk of the firm. It is undefined at financial break even point. EBIT will be positive for all the values of EBIT that are above financial break even point. However DFL will start to decline as EBIT increases and will reach a limit of 1. Hence all statements are true.
19. A 
$$\begin{aligned} \text{Expected rate of return} &= \sum r_i p_i \\ &= (10 \times 0.30) + (-12 \times 0.10) + (-15 \times 0.20) + (20 \times 0.40) \\ &= 3 + (-1.2) + (-3) + 8 \\ &= 6.8\% \end{aligned}$$
20. C 
$$\begin{aligned} \text{Cost of house} &= \text{Rs.}8,00,000 \\ \text{No. of installments} &= 7 \times 12 = 84 \text{ monthly} \\ \text{Nominal interest rate} &= 11\% \end{aligned}$$
  

$$\text{Effective annual interest rate} = \left(1 + \frac{0.11}{4}\right)^4 - 1 = 11.46\%$$
  

$$\text{Effective monthly rate} = (1 + 0.1146)^{1/12} - 1 = 0.0091$$
  

$$8,00,000 = A \left[ \frac{(1 + 0.0091)^{84} - 1}{0.0091(1 + 0.0091)^{84}} \right]$$
  

$$A = \frac{8,00,000}{58.5465} = \text{Rs.}13,664.58 \sim \text{Rs.}13,665.$$
21. C A group of persons working towards common objective is a company and the minimum number of persons required to set up a private company is 2 and for a public company it is 7. Hence, (c) is not true. The simplest form of business organization is sole-proprietorship firm. As it is owned by a single person and free from governmental regulations it is very inexpensive to set up. Hence, (a) is true. A partnership firm is formed by two or more persons by agreement. The life of the firm depends on the agreement and the death or withdrawal of a partner may result in the dissolution of the firm. Hence, (b) is true. According to Sec 3(1)(iii) of the Companies Act, 1956, a private company is one, which cannot have members more than 50. Hence, (d) is true. As a public limited company can raise equity capital through issuance of shares to the public its ability to raise funds is substantial. Hence, (e) is true.
22. C As the expected growth rate in dividends increases, other things being equal, the price increases to a greater extent than dividends. So the capital gains yield is more than the dividend yield. Hence the expected return depends more on the capital gains yield and less on the dividend yield. Therefore statement (I) is true. Also, for the same expected earnings an increase in the expected growth rate in dividends causes the P/E ratio to increase. Hence statement (II) is not true. When the growth prospects are limited the expected return depends more on dividend yield and less on capital gains yield, and the P/E ratio is low. Hence high dividend yield and low P/E ratio indicate limited growth prospects. Therefore statement (III) is true.
23. B 
$$\text{We know, } P_0 = \frac{D_1}{k_e - g}$$
  
 Where,

- $P_0$  = Current market price  
 $k_e$  = Expected rate of return  
 $g$  = Growth rate in dividends  
 $D_1$  = Dividend at the end of one year.

The above equation can be rewritten as:

$$k_e = \frac{D_1}{P_0} + g$$

Putting the values for the variables we get:

$$\begin{aligned}
 k_e &= \frac{(100 \times 0.20)(1 - 0.10)}{80} + (-0.10) = \frac{20(0.90)}{80} - 0.10 \\
 &= 0.125 \text{ i.e., } 12.5\%.
 \end{aligned}$$

24. C Financial break even point =  $EBIT = I + \frac{D_p}{1-t}$

Where,

- $I$  = Rs.20 lakh  
 $D_p$  = Rs.15 lakh  
 $t$  = 40%

$$\therefore \text{In this case, at financial break even point } EBIT = 20 + \frac{15}{(1-0.4)} = \text{Rs.45 lakh.}$$

25. D (I) and (II) are subjective methods of sales forecasting and (III) and (IV) are statistical methods. Hence answer (d) is correct.

26. C SIL shares:

$$\begin{aligned}
 \text{Expected return} &= \sum p_i k_i = 10(0.30) + 20(0.30) + 30(0.40) \\
 &= 3+6+12=21\%
 \end{aligned}$$

$$\begin{aligned}
 \text{Risk} &= \text{Standard deviation of returns} = \left[ \sum p_i (k_i - \bar{k}_i)^2 \right]^{1/2} \\
 &= [(10 - 21)^2 (0.30) + (20 - 21)^2 (0.30) + (30 - 21)^2 \times 0.40]^{1/2} \\
 &= [69]^{1/2} \\
 &= 8.307\%.
 \end{aligned}$$

27. B Commercial papers are short term, unsecured promissory notes issued by corporates which are financially strong and have high credit rating. The minimum amount to be invested by a single investor is Rs.5 lakhs. Hence, the answer is (b).

These instruments are issued in multiples of Rs.5 lakhs. Hence, (a) is not correct. The maturity period varies from 15 days to a year. Hence, (c) is not correct. Unlike certificate of deposits, CPs can be bought back by the issuers. Hence, (d) is not correct. The companies can raise commercial papers upto the extent of 100 percent of the working capital limit. Hence, (e) is not correct.

28. D Sustainable growth rate (g)

$$g = \frac{m(1-d) \frac{A}{E}}{\frac{A}{S_o} - m(1-d) \frac{A}{E}}$$

where,  $m$  is net profit margin = 8%,  $d$  is dividend payout ratio = 40%

$$\text{Asset to equity ratio, } \frac{A}{E} = 1.5$$



$$\text{Assets to sales ratio ( } S_o \text{ )} = \frac{A}{S_o} = \frac{1}{0.75}$$

$$g = \frac{0.08(0.6)1.5}{\frac{1}{0.75} - 0.08(0.6)1.5} = 0.0571 = 5.71\%$$

29. D Yield is calculated as  $\frac{F-P}{P} \times \frac{365}{d}$

Where, F is face value  
P is purchase price  
d is the duration/maturity period

$$\text{In the given case, yield} = \frac{100-P}{P} \times \frac{365}{160}$$

If yield = 9.5%, P is calculated as,

$$\frac{100-P}{P} \times \frac{365}{160} = 0.095$$

$$\frac{100-P}{P} = \frac{0.095 \times 160}{365}$$

$$= \frac{100-P}{P} = 0.04164$$

$$100-P = 0.04164P$$

$$P = \text{Rs.96.00}$$

30. D Some companies distribute profits to the existing shareholders by way of fully paid bonus shares in the ratio of existing shares held. In this method of issue though the amount of share capital is increased there will not be any increase in the networth because it is just conversion of eligible reserves into share capital. Hence, (d) is the answer.

Public issue is the method of raising capital from the public. In this method there will be an equal increase in the share capital and networth of the company. Rights issue is the method of raising capital from the existing members by offering shares to them on pro-rata basis. This method also results in an increase in share capital and networth of the company. Bought out deals is the method of raising capital by a company by initially placing its shares, which are to be offered to the public at a later date, to a merchant banker, who in turn off loads the shares at the appropriate time. In this method too, share capital and inturn networth of the company are increased by the issue amount. Private placement, the method raising capital from a limited number of sophisticated investors, also results in increase in share capital and networth of the company. Hence, (a), (b), (c) and (e) are not the answers.

31. E Current ratio =  $\frac{CA}{CL}$

or,  $\frac{CA}{CL} = 1.50$

or,  $CA = \frac{1500}{1.50} = \text{Rs. 1000 lakhs}$

As the existing current liabilities amount to Rs.1200 lakhs, Rs.200 lakhs of short term borrowings have to be repaid to increase the CR to 1.5.

32. C Inventory turnover =  $\frac{\text{Cost of goods sold}}{\text{Average stock}}$

$$5 = \frac{5,50,000}{\text{Average stock}}$$

$$\text{Average stock} = \frac{5,50,000}{5} = \text{Rs.1,10,000}$$

$$\frac{\text{Opening stock} + \text{Closing stock}}{2} = 1,10,000$$

$$\text{Closing stock} = (2 \times 1,10,000) - 1,20,000 = \text{Rs.1,00,000}$$

33. D

(Rs. in crore)

Sales	30
Less: Variable costs	18
Contribution	12
Less: Fixed cost (F)	4
Profit before interest and tax (EBIT)	8
Less : Interest (I)	0.80
Profit before tax (EBT)	7.20
Tax (7.20 × 0.35)	2.52
Profit after tax (PAT)	4.68
Less: Preference dividend (D <sub>p</sub> ) (1 × 0.12)	0.12
Earnings available to equity shareholders	4.56

Workings Notes:

Interest expense:	(Rs. in crore)
Interest on term loan : 4 × 0.11	0.44
Interest on debentures : 4 × 0.09	0.36
Total	0.80
DOL = $\frac{Q(S-V)}{Q(S-V)-F}$	= $\frac{\text{Contribution}}{\text{EBIT}} = \frac{12}{8} = 1.50$
DFL = $\frac{\text{EBIT}}{\text{EBIT} - I - \frac{D_p}{1-t}}$	= $\frac{8}{8 - 0.80 - \frac{0.12}{1 - 0.35}} = 1.14$
DTL = DOL × DFL	= 1.71

34. D

In cross-sectional analysis the financial ratios of a firm are compared with the industry averages under normal business conditions. In time series analysis the ratios of a firm over different periods of time are compared. In Du pont analysis the interrelationships among the various components of a balance sheet and income statement. In common size analysis the items in the income statement are expressed as percentage of the net sales and the items in the balance sheet are expressed as percentages of total assets. The cross-sectional analysis is an extension of financial ratio analysis.

35. C

The following are assumed in the Capital Assets Pricing Model (CAPM):

- i. An investor can buy or sell assets in terms of any units desired.
- ii. Transaction costs are negligible.
- iii. Investors are generally risk averse in nature and
- iv. Investment horizon is generally considered as one period only.
- v. There are no taxes.

Hence, alternative (c) is the answer.

36. D

$$\text{Earning power} = \frac{\text{EBIT}}{\text{Total Assets}} = \frac{160}{300 + 500} = \frac{160}{800} = 0.2$$

Hence, earning power of the company = 20%

37. A The present liquidity position of a company is assessed by using its liquidity ratio. The long-term solvency of the firm is assessed through the capital structure ratios while the effectiveness of the utilization of the assets is done through the assets turnover ratios. Profitability is examined by using the profitability ratios like net profit margins, return on networth, etc. whereas the efficiency of the collection of the receivables is assessed by the average collection period.

38. E Change in net working capital can be calculated as :  $(100 + 60 + 25 - 35) - (80 + 50 + 10 - 40)$   
 $= 150 - 100 = \text{Rs.}50 \text{ lakh}$

39. C 
$$\text{Degree of Total Leverage (DTL)} = \frac{Q(S - V)}{Q(S - V) - F - I - \frac{D_p}{1 - T}}$$

Hence, the sales revenue of the firm is  $Q.S$  while the total variable expenses is  $=Q.V$   
 Now, if  $QS = QV$ , DTL will be zero

40. A 
$$\text{Degree of Financial Leverage (DFL)} = \frac{\text{EBIT}}{\text{EBIT} - I - \frac{D_p}{1 - T}}$$

Now, as the coupon rate of the debentures and preference shares is same, so  $I = D_p$

But interests on debentures are a pre-tax expense while the dividend on preference share is a post-tax expense.

As the tax rate  $T > 0$ , the DFL of the company will increase as the negative part of the denominator increases.

41. B The cash flow pattern for the debentures will be as follows:  
 Half-yearly coupon payment = Rs.5 each upto five years and six months, and then a coupon amount of Rs. 2.5 each at the end of 6 years and at the end of 6 years and 6 months.  
 Redemption payment = Rs.50 each at the end of 5 years and 6 months, and at the end of 6 years and 6 months.  
 The fair price of the debenture  $(P_0) = 5PVIFA(6\%, 11) + 50PVIF(6\%, 11) + 2.5PVIF(6\%, 12) + 52.5PVIF(6\%, 13)$ .  
 $= 5 \times 7.8869 + 50 \times 0.5268 + 2.5 \times 0.4970 + 52.5 \times 0.4688$   
 $= \text{Rs.}91.63$

42. B The interest rate usually specified on an annual basis in a loan agreement or security is known as the nominal rate of interest. If compounding is done more than once a year, the actual rate of interest paid (or received) is called effective interest rate. Effective interest rate would be higher than the nominal interest rate.  
 The effective rate of interest increases with increase in the frequency of compounding. For example, the effective rate of interest under quarterly compounding will be more than the effective rate of interest under semi-annual compounding. Hence option (b) is correct.

43. C Custodians hold the underlying shares and collect rupee dividends on the underlying shares and repatriate the same to the depository in US dollars/foreign equity.  
 Hence (c) is the answer.

Lead managers undertake activities like preparation of offer circular, marketing the issues etc.

Underwriters of the issue bear interest rate or market risks moving against the issuer before they have placed bonds or depository receipts.

44. D Present value factor for a perpetual annuity =  $\frac{1}{i}$ . Hence it decreases with an increase in the interest rate. Hence (d) is the correct option.

Future Value Interest Factor =  $(1 + i)^n$ . Hence it increases with increase in the interest rate.

Future Value Interest Factor For Annuity (FVIFA) =  $\frac{(1 + i)^n - 1}{i}$ . FVIFA also increases with increase in the interest rate.

$$\frac{i(1+i)^n}{(1+i)^n - 1}$$

Capital Recovery Factor =  $\frac{i(1+i)^n}{(1+i)^n - 1}$ . It is the inverse of PVIFA, which decreases with increase in interest rate. Therefore, Capital Recovery Factor increases with increase in the interest rate.

Inverse of PVIFA is capital recovery factor, which increases with increase in the interest rate.

Hence, options (a), (b), (c) and (e) are incorrect.

45. E Liquidity risk is the risk associated with the secondary market in which the security is traded. The greater the uncertainty about the time element and the price concession, the greater is the liquidity risk. Hence (e) is the answer.

Interest rate risk is the variability in a security's return resulting from changes in the level of interest rates. Market risk refers to the variability of returns due to fluctuations in the securities market. Business risk is the risk of doing business in a particular industry or environment. Financial risk is the risk that arises when companies resort to financial leverage or the use of debt financing.

46. A Note Issuance Facility (NIF) is a medium-term legally binding commitment under which a borrower can issue short-term paper, of upto one year. Hence (a) is the answer.

Commercial papers are short-term unsecured promissory notes, which pay a fixed amount. Straight debt bonds and floating rate notes are long-term instruments having a maturity of over one year.

47. C Bulldog bonds are sterling denominated foreign bonds which are raised in the United Kingdom domestic securities market. Hence option (c) is the correct choice.

Samurai bonds are bonds issued by non-Japanese borrowers in the domestic Japanese markets.

Yankee bonds are US dollar denominated bonds issued by foreign borrowers in the US domestic markets.

Shibosai Bonds are Yen denominated privately placed bonds issued in the Japanese Markets.

Matador bonds are foreign bonds issued in Spain.

48. A 
$$\text{Dividend yield} = \frac{\text{Dividend per share}}{\text{Market price per Share}}$$

$$= \frac{\text{Net Income} \times \text{Payout ratio}}{\text{No. of shares}} \times \frac{1}{\text{MP}}$$

$$= \frac{50,000 \times 0.4}{10,000} \times \frac{1}{50} = 0.04 = 4\%$$

49. B Risk premium =  $\beta(R_m - R_f)$

Prob.	$k_A$	$k_m$	$(k_A - \bar{k}_A)$	$(k_m - \bar{k}_m)$	$(k_m - \bar{k}_m)$ $(k_A - \bar{k}_A)$	$(k_m - \bar{k}_m)$ $(k_A - \bar{k}_A) \cdot P$
0.30	7	9	-3.2	0.25	-0.8	-0.24
0.35	8	5	-2.2	-3.75	8.25	2.8875
0.15	14	10	3.8	1.25	4.75	0.7125
0.20	16	14	5.8	5.25	30.45	6.09
	$\bar{k}_A = \sum k_A P$ = 10.20	$\bar{k}_m = \sum k_m P$ = 8.75				9.45

$$\beta_A = \frac{\text{Cov}(k_A, k_m)}{\text{Var}(k_m)} = \frac{\sum P \cdot (k_A - \bar{k}_A)(k_m - \bar{k}_m)}{\sum P(k_m - \bar{k}_m)^2} = \frac{9.45}{10.6875} = 0.884$$

Risk premium =  $0.884(8.75 - 6) = 2.43\%$ .

Hence, option (b) is the correct choice.

50. E 
$$\text{Return on debenture} = \frac{\text{Coupon payment} + \text{Appreciation in the price}}{\text{Purchase Price at the beginning of the year}}$$

$$\frac{\text{Couponpayment} + (115 - 110)}{110}$$

i.e.  $0.15 = \frac{\text{Couponpayment} + (115 - 110)}{110}$

Hence coupon payment  $= (110 \times 0.15) - 5 = \text{Rs. } 11.50$

Hence, (e) is the answer.

51. B 
$$\text{Average collection period} = \frac{\text{Average accounts receivable}}{\text{Average daily sales}}$$

Hence average daily sales  $= \frac{\text{Average accounts receivable}}{\text{Average collection period}}$   
 $= 45,000/60.$

Hence annual sales  $= 360 \times 45,000/60 = \text{Rs. } 2,70,000$

52. D The present value of the bond is  $\text{Rs. } 950 = 120\text{PVIFA}(14\%,n) + 1050\text{PVIF}(14\%,n)$

'n' at 5 years,  $\text{RHS} = 120 \times 3.4331 + 1050 \times 0.5194 = 957.34$

'n' at 6 years,  $\text{RHS} = 120 \times 3.8887 + 1050 \times 0.4556 = 945.02$

By interpolation;  $5 + \frac{957.34 - 950}{957.34 - 945.02} \times 1 = 5.6 \text{ years.}$

53. B The point at which DTL is undefined is called the overall break-even point. At this point the quantity produced can be computed as:

$$Q = \frac{F + I + \frac{D_p}{(1-T)}}{(S-V)}$$

Where, F is the fixed expenses

I is the interest expense

$D_p$  is the preference dividend

T is the corporate tax rate

S is the selling price per unit and V is the variable cost per unit

$$6,00,000 + 65,000 + \frac{30,000}{(1-0.40)}$$

Hence  $Q = \frac{6,00,000 + 65,000 + \frac{30,000}{(1-0.40)}}{(900 - 400)} = 1,430 \text{ units.}$

54. C If 'k' is the nominal interest rate then the effective interest rate (say 'r') can be computed as:

$$r = \left(1 + \frac{k}{m}\right)^m - 1$$

where, m is the frequency of compounding per year.

Hence,  $0.1060 = \left(1 + \frac{k}{3}\right)^3 - 1$

Hence,  $k = 10.25\%$ .

Option (c) is the correct choice.

55. A 
$$\text{Liquidation value} = \frac{\text{Realised amount from Assets} - \text{Payment to creditors}}{\text{No. of shares}}$$

$$= \frac{35 - 30}{0.75} = \text{Rs. } 6.67$$

56. C 
$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}} = \frac{1.5}{1}$$

Net working capital  $= \text{Total of current assets} - \text{Total of current liabilities} = \text{Rs. } 10,00,000$

If current assets is 1.5 and current liabilities is 1, net working capital is 0.5.

When net working capital is Rs.10,00,000, current liabilities =  $\frac{10,00,000}{0.5}$   
 =Rs.20,00,000.

Therefore, current assets = 20,00,000x1.5 =Rs.30,00,000

$$\text{Quick ratio} = \frac{\text{Total C.A} - \text{Inventory}}{\text{Total C.L}} = \frac{30,00,000 - \text{Inventory}}{20,00,000} = 1.3$$

Therefore inventory = 30,00,000-26,00,000=Rs.4,00,000.

57. D New sales = 30 (1.3) = Rs.39 lakhs

$$\text{Net Profit Margin} = \frac{4.5}{30} = 15\%$$

New PAT = 39 x 0.15 = Rs.5.85 lakhs

Dividends = 40% of 5.85 = Rs.2.34 lakhs

Retained earnings = Rs.3.51 lakhs

Increase in borrowings = 3.51 x 1.75 = Rs.6.14 lakhs

58. B Value of convertible = PV of interest + PV of MP of received shares

$$= \frac{10}{1.15} + \frac{2 \times 60}{1.15} = 8.695 + 104.347 = \text{Rs.113.04.}$$

59. B Cost of goods sold = Rs. 39,00,000.

Gross profit margin is given to be 25%. In other words gross profit is 25% of sales.

Let Sales be x.

Therefore, Cost of goods sold + 0.25 x = x

$$39,00,000 + 0.25x = x$$

Hence x (i.e. Sales) = Rs. 52,00,000.

Average receivables turnover ratio is given to be 5

$$\text{i.e. Average accounts receivables} = \frac{\text{Net credit sales}}{5} \quad (\text{assume that the entire sales are on a credit basis})$$

$$\text{Average accounts receivables} = \frac{52,00,000}{5} = 10,40,000$$

Therefore, Debtors (or average account receivables) = Rs. 10,40,000.

$$\text{Cash and Bank} = \text{Quick assets} - \text{debtors} = 18,00,000 - 10,40,000$$

= Rs.7,60,000.

60. D In case of a Direct Quote the Exchange margin is to be deducted from the bid rate and added to the ask rate. The basic principle is to buy low - sell high.

Hence, option (d) is the correct answer.

61. D Limit order is a type of order where it is limited by fixed price which may or may not include brokerage. Hence, (d) is the answer. Limited discretionary order is to provide discretion to the broker to execute order at price which almost is the approximate price fixed by the client. Best rate order is to execute the buy/sell order at the best possible price. In Immediate order order get canceled if not executed immediately at the quoted price. In Stop loss order, a particular limit is given for sustenance of loss to the broker.

62. D Profit on sale of investments was added to arrive at the net profit figure. So the same has to be deducted in arriving at the funds from operations. Hence, the answer is (d).

In arriving at the net profit, preliminary expenses written off, transfer to reserve, loss on sale of fixed assets, proposed dividends have been deducted. Hence, to arrive at the funds from operations all the above have to be added. Hence, (a), (b), (c) and (e) are not the answers

63. E A fund flow statement does not reveal the quality of the management. Hence (e) the correct answer. Using a funds flow statement we can know about all the given factors. i.e. liquidity, acquisition of non

current assets, about utilization of external funds and pattern of financing.

64. C

(Amount in Rs.)

End of year	Dividend	Present value of dividends at 10 %
1	3(1.04)	3.12 × 0.909 = 2.84
2	3(1.04) <sup>2</sup>	3.24 × 0.826 = 2.68
3	3(1.04) <sup>3</sup>	3.37 × 0.751 = 2.53
4	3(1.04) <sup>4</sup>	3.50 × 0.683 = 2.39
		10.44

Year 5 dividend = Rs.3.50 (1.03)  
= Rs.3.605

Therefore Market price at the end of 4<sup>th</sup> year

$$\frac{3.605}{0.10 - 0.03} = \text{Rs.}51.5$$

Present value of Rs.51.5 at 10% discount rate =Rs.35.18

Intrinsic value if the holding period is infinite = Rs.35.18+10.44= Rs.45.62

65. C

Present current ratio=Rs.100lakh/Rs.60lakh =1.67.

Fixed assets purchases of Rs.20 lakh will decrease the current assets to Rs.80lakh.Issue of new shares for Rs.25lakh will increase cash at bank, and the current assets to Rs.105lakh.Bills receivables dishonored will increase debtors (one form of current assets) and decrease bills receivables. As a result there will be no change in the amount of current assets. Cash worth Rs.3,00, 000 collection from customers will increase one constituent of current assets, i.e debtors (decrease another constituent of current assets) and, hence, will have no change.

So the new current ratio=Rs.105lakh/Rs.60lakh = 1.75

66. C

Funds from operations = Retained earnings – interest earned + amortization + depreciation + dividends + Preliminary expenses written off  
= 40-12+10+8+20+10=Rs.76 lakh

67. C

Coupon on the bond =5000x0.10 =Rs.500

Current yield = Coupon/Market price

$$0.0833 = \frac{500}{P_o}$$

Po= Rs.6002.4

$$\text{Premium on the bond} = \frac{6002.4 - 5000}{5000} = 20\%$$

68. C

Weighted beta = (400 × 0.5 + 400 × 2 + 200 × 4)/1000 = 1.8

Required rate of return according to CAPM = R<sub>f</sub> + B<sub>p</sub> (R<sub>m</sub> – R<sub>f</sub>)

$$= R_f + 1.8(14 - R_f) = 20.4$$

$$= R_f + 25.2 - 1.8 R_f = 20.4$$

$$= 0.8 R_f = 4.8$$

$$R_f = 6\%$$

New weighted Beta = (400 × 0.5 + 400 × 2 + 200 × 3)/1000

$$= 1.6$$

New required rate of return = 6 + 1.6(14 – 6)

$$= 18.8\%.$$

69. D According to the single-index model,

$$\begin{aligned}
 R_i &= \alpha + \beta R_m \\
 &= 0.04 + 1.5 \times 0.07 \\
 &= 14.5\%
 \end{aligned}$$

As the shares are said to be in equilibrium,

$$\frac{D_1}{P_0} + g = R$$

$$= \frac{3 \times 0.6}{40} + g = 0.145$$

$$0.045 + g = 0.145$$

$$g = 0.10$$

$$\text{MP at the end of 5 years} = \frac{D_6}{k - g}$$

$$\begin{aligned}
 &= \frac{3 \times 0.6 \times (1.10)^5}{0.145 - 0.10} \\
 &= \text{Rs.64.42.}
 \end{aligned}$$

70. D Forecasting sales volume is the first step in the exercise of financial forecasting. Based on the amount of sales target to be achieved by the company, forecasting for the other requirements are made

71. C Returns from the market under various scenarios can be estimated as

Sensex	13978	14163	14348
Return	$\frac{(13978 - 13700) \times 2 \times 100}{13700}$ = 4.06 percent	$\frac{(14163 - 13700) \times 2 \times 100}{13700}$ = 6.76 percent	$\frac{(14348 - 13700) \times 100 \times 2}{13700}$ = 9.46 percent
Probability	0.3	0.4	0.3

Hence, the required expected return

$$= 4.06 \times 0.3 + 6.76 \times 0.4 + 9.46 \times 0.3 = 6.76 \text{ percent}$$

72. B Return from each of the given scenarios may be obtained as

Price (Rs.)	10	11	12
Return	$\frac{1 + (10 - 10)}{10} \times 100$ = 10 percent	$\frac{1 + (11 - 10)}{10} \times 100$ = 20 percent	$\frac{1 + (12 - 10)}{10} \times 100$ = 30 percent
Probability	0.3	0.40	0.3

So, the expected return is  $10 \times 0.30 + 20 \times 0.40 + 30 \times 0.30 = 3 + 8 + 9 = 20$  percent.

Expected return from the shares of HJL is = 20 percent

Returns from the market under various scenarios can be estimated as

Sensex	4370	4750	5130
Return	$\frac{4370 - 3800}{3800} \times 100$ = 15 percent	$\left( \frac{4750 - 3800}{3800} \right) \times 100$ = 25 percent	$\frac{(5130 - 3800) \times 100}{3800}$ = 35 percent
Probability	0.3	0.4	0.3

Hence, the expected return

$$= 15 \times 0.3 + 25 \times 0.4 + 35 \times 0.3 = 25 \text{ percent.}$$

And the expected return from sensex is = 25 percent



So, the variance on the market return can be calculated as

$$\sigma_m^2 = \{0.3 \times (15 - 25)^2 + 0.3 \times (25 - 25)^2 + 0.3 \times (35 - 23)^2\} = 60$$

Now, the covariance between the return from the share and return from the market can be calculated as

$$= 0.30 \times (10 - 20)(15 - 25) + 0.4 \times (20 - 20)(25 - 25) + 0.3(25 - 15)(35 - 25)$$

$$= 0.3 \times 100 + 0.3 \times 100 = 60$$

= Hence, the beta value for the shares of HJL is

$$= \frac{\text{covariance between the returns from the shares and market}}{\text{variance on the market returns}}$$

$$= \frac{60}{60} = 1.00$$

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