

**Question Paper**  
**Financial Management-I (MB2E1): January 2009**

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

**Total Marks : 100**

[<Answer>](#)

1. Which of the following is a part of the financial control function of the finance manager?

- (a) Negotiating with the banks and financial institutions for loans
- (b) Negotiating with the merchant banks for issue of shares and debentures
- (c) Reporting on the financial performance of individual departments within the organization
- (d) Appraisal of investment proposals given by various departments
- (e) Deployment of funds in various assets.

**(1 mark)**

[<Answer>](#)

2. 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 of a private limited company is 50
- (e) The ability to raise funds is limited for a partnership firm, whereas for a public company it is substantial.

**(1 mark)**

[<Answer>](#)

3. Which of the following statements is **false** with respect to the objectives of Companies act, 1956?

- (a) To ensure minimum standard of business integrity and conduct in the promotion and management of companies
- (b) To elicit full and fair disclosure of all reasonable information relating to the affairs of the company
- (c) To promote effective participation and control by share holders and protect their legitimate interest
- (d) To promote an orderly maintenance of the foreign exchange market in India
- (e) To investigate into and intervene in the affairs of companies which are managed in a manner prejudicial to the interest of the shareholders or public at large.

**(1 mark)**

[<Answer>](#)

4. The focal point of financial management of a firm is

- (a) To maximize the number and types of products or services provided by the firm
- (b) To minimize the amount of taxes paid by the firm
- (c) The creation of value for shareholders
- (d) Maximizing the profits earned by the firm
- (e) The minimum use of debt.

**(1 mark)**

[<Answer>](#)

5. Which of the following companies generally provide risk capital to the technology oriented and highly risky businesses?

- (a) Hire purchase finance companies
- (b) Lease finance companies
- (c) Venture capital funding companies
- (d) Commercial banks
- (e) Insurance companies.

**(1 mark)**

6. Which of the following statements is/are **true** with respect to the Money Market Mutual Funds (MMMFs)? [<Answer>](#)
- I. MMMFs were setup to make available the benefits of investing in money markets to big investors.
  - II. MMMFs are mutual funds that invest primarily in money market instruments of very high quality and of very short maturities.
  - III. A closed-ended scheme offered by MMMFs is available for subscription for a limited period and is redeemed at maturity.
- (a) Only (I) above
  - (b) Only (II) above
  - (c) Both (I) and (II) above
  - (d) Both (II) and (III) above
  - (e) All (I), (II) and (III) above.
- (1 mark) [<Answer>](#)
7. Which of the following statements is/are **not true** with respect to the investors in primary markets? [<Answer>](#)
- I. The commercial banks are compulsive investors in the government securities.
  - II. Nationalized banks, financial institutions and large corporate bodies prefer short-dated securities.
  - III. RBI is the market maker of government securities.
- (a) Only (I) above
  - (b) Only (II) above
  - (c) Both (I) and (II) above
  - (d) Both (I) and (III) above
  - (e) All (I), (II) and (III) above.
- (1 mark) [<Answer>](#)
8. The services of which of the following entities are generally **not** useful to the retail investors? [<Answer>](#)
- (a) Nidhis
  - (b) Commercial banks
  - (c) Hire purchase finance companies
  - (d) Housing finance companies
  - (e) Merchant Banks.
- (1 mark) [<Answer>](#)
9. Which of the following is/are **true** with respect to the acts of the arbitrageurs in the derivatives market? [<Answer>](#)
- (a) To protect one's position in the spot by taking suitable instrument(s) in the derivatives market
  - (b) To protect one's anticipated position in the spot by taking suitable instrument(s) in the derivatives market
  - (c) To make profit from the subsequent price movements of any particular instrument in the derivatives market
  - (d) To make risk free profits by simultaneously buying and selling similar instruments in different markets
  - (e) To hedge in the derivative market.
- (1 mark) [<Answer>](#)
10. Mr. Shyam purchased a T-bill of face value Rs.100 at Rs.94.60. If he wishes to earn a yield of 11.5%, the maturity of T-bill is approximately [<Answer>](#)
- (a) 14 days
  - (b) 28 days
  - (c) 91 days
  - (d) 181 days
  - (e) 364 days.
- (1 mark) [<Answer>](#)
11. Sudha's father has promised to give her Rs.10,000 at the end of each year for the next three years. Sudha decided to deposit that money in a bank which pays interest 9 percent p.a. compounded semi-annually. If she does so, the money Sudha will have at the end of three years is [<Answer>](#)
- (a) Rs.32,845
  - (b) Rs.38,624
  - (c) Rs.40,385
  - (d) Rs.43,179
  - (e) Rs.45,438.
- (2marks)

12. Which of the following statements is **true** with respect to the interest rates? [<Answer>](#)
- (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 mark)
13. Which of the following statements is/are **true** with respect to present value interest factor of annuity (PVIFA)? [<Answer>](#)
- I. The cash flow is assumed to occur periodically at the end of the period under consideration.
  - II. It is reciprocal to Sinking Fund Factor.
  - III. It is reciprocal to capital recovery factor.
- (a) Only (I) above
  - (b) Only (II) above
  - (c) Only (III) above
  - (d) Both (I) and (II) above
  - (e) Both (I) and (III) above. (1 mark)
14. Mr. Karan borrowed an amount of Rs.1,00,000 at an effective interest rate of 10% per annum. The amount has to be repaid with interest in ten equal annual installments. Each installment is payable at the end of every year. The amount of each installment will be approximately [<Answer>](#)
- (a) Rs.16,273
  - (b) Rs.17,225
  - (c) Rs.18,750
  - (d) Rs.19,375
  - (e) Rs.20,625. (1 mark)
15. Delight Tours and Travels Ltd. wishes to replace its luxury bus after 10 years by accumulating funds in a special account. The new bus is expected to cost Rs.18,00,000. How much must Delight put into the fund in equal, end-of-year amounts if the savings are expected to earn a return of 8% for the first 4 years and 10% thereafter? [<Answer>](#)
- (a) Rs. 99,010
  - (b) Rs. 1,14,645
  - (c) Rs. 1,21,070
  - (d) Rs. 1,47,270
  - (e) Rs. 1,69,000. (2marks)
16. Which of the following is/are **true** regarding the Realized Yield approach? [<Answer>](#)
- I. The investors take the past returns on a security as a proxy for the estimation of return required in the future.
  - II. One of the assumptions is that the actual returns have not been in line with the expected returns.
  - III. The result of this approach is taken as a starting point for the estimation of the required rate of return.
- (a) Only (I) above
  - (b) Only (II) above
  - (c) Both (I) and (II) above
  - (d) Both (I) and (III) above
  - (e) All (I), (II) and (III) above. (1 mark)
17. How much interest is earned in the third year on a Rs.1,000 deposit that earns 7% interest compounded annually? [<Answer>](#)
- (a) Rs. 70
  - (b) Rs. 80
  - (c) Rs.106
  - (d) Rs.140
  - (e) Rs.245. (1 mark)

18. Which of the following is **not** a feature of Certificate of Deposit (CD) issued by a bank? [<Answer>](#)
- (a) It is a document of title to a time deposit
  - (b) It is issued at a discount to face value
  - (c) It is not subject to the reserve requirement of the bank
  - (d) It is freely transferable by endorsement and delivery
  - (e) It attracts stamp duty and there is no grace period, as in the case of bill financing. (1 mark) [<Answer>](#)
19. John wants to have Rs.2,00,000 in his account in 20 years. If his account earns 11 percent per annum over the accumulation period, how much must he save per year (end of year) to have Rs.2,00,000? [<Answer>](#)
- (a) Rs. 3,115
  - (b) Rs. 3,492
  - (c) Rs. 5,752
  - (d) Rs.10,000
  - (e) Rs.25,116. (1 mark) [<Answer>](#)
20. If the beta of a stock is equal to zero, which of the following statements is/are **true** with respect to Capital Asset Pricing Model (CAPM)? [<Answer>](#)
- I. Slope of SML is zero.
  - II. Required rate of return of the given stock is equal to the risk free rate of return.
  - III. Stock will lie on the SML.
- (a) Only (I) above
  - (b) Only (II) above
  - (c) Both (I) and (II) above
  - (d) Both (II) and (III) above
  - (e) All (I), (II) and (III) above. (1 mark) [<Answer>](#)
21. Which of the following statements is/are **true** with respect to diversification? [<Answer>](#)
- I. The diversifying effect of each additional stock increases with an increase in the number of stocks in the portfolio.
  - II. The higher the degree of positive correlation between the stocks, the greater is the amount of risk reduction that is possible.
  - III. The portfolio risk will be minimum, if the stocks are perfectly negatively correlated.
- (a) Only (I) above
  - (b) Only (II) above
  - (c) Only (III) above
  - (d) Both (I) and (II) above
  - (e) Both (I) and (III) above. (1 mark) [<Answer>](#)
22. Risk arising due to the uncertainty of the time element in buying and selling the securities without significant price concession is referred to as [<Answer>](#)
- I. Market risk.
  - II. Inflation risk.
  - III. Liquidity risk.
  - IV. Purchasing power risk.
- (a) Only (I) above
  - (b) Only (III) above
  - (c) Only (IV) above
  - (d) (I), (II) and (III) above
  - (e) (I), (III) and (IV) above. (1 mark) [<Answer>](#)
23. You have just arranged an installment loan of Rs.200,000. Assume that the loan will be repaid in 24 equal monthly installments of Rs.9,414.87 and that the first payment will be due one month from today. How much of your third monthly payment will go towards the repayment of principal? [<Answer>](#)
- (a) Rs.7,414.87
  - (b) Rs.7,563.91
  - (c) Rs.7,489.02
  - (d) Rs.8,125.88
  - (e) Rs.8,333.33. (2marks)

24. Which of the following statements is/are **not true** with respect to standard deviation? [<Answer>](#)
- I. Higher the range, higher the standard deviation.
  - II. Of the two probability series, the one, which has the highest mean value, has the highest standard deviation.
  - III. Higher the variance, higher the standard deviation.
- (a) Only (I) above
  - (b) Only (II) above
  - (c) Both (I) and (II) above
  - (d) Both (II) and (III) above
  - (e) All (I), (II) and (III) above. (1 mark) [<Answer>](#)
25. If the beta of a stock is 1.63 and the standard deviation of the return on the market is 16.25%, the covariance of returns of the stock and market is [<Answer>](#)
- (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) 502.28%<sup>2</sup>. (1 mark) [<Answer>](#)
26. Which of the following statements is /are **true** regarding the Capital structure decision? [<Answer>](#)
- I. It is a managerial decision which influences the risk and return of the investors.
  - II. The company has to plan its capital structure at the time of promotion only.
  - III. The capital structure of a company refers to the mix of long-term finances.
- (a) Only (I) above
  - (b) Only (II) above
  - (c) Both (I) and (II) above
  - (d) Both (I) and (III) above
  - (e) Both (II) and (III) above. (1 mark) [<Answer>](#)
27. The significance of the beta coefficient with respect to the risk of a security is that [<Answer>](#)
- (a) It indicates the unsystematic risk of the security
  - (b) It indicates the systematic risk of the security
  - (c) It indicates the total risk of the security
  - (d) It indicates the operating risk of the company that has issued the security
  - (e) It indicates the financial risk of the company that has issued the security. (1 mark) [<Answer>](#)
28. The risk-free rate is 9% p.a., the return on market is 15% p.a. and the beta of a stock is 1.5. According to the CAPM, the risk premium of the stock is [<Answer>](#)
- (a) 13.7%
  - (b) 12.8%
  - (c) 11.6%
  - (d) 9.0%
  - (e) 7.5%. (1 mark) [<Answer>](#)
29. The stocks of Hi-fi Computers (HC) and Elixir Beverages Ltd. (EBL) have a beta of 1.5 and 0.5 respectively. Which of the following statements will be **true** with respect to these securities? [<Answer>](#)
- (a) The addition of HC would reduce portfolio risk more than the addition of EBL
  - (b) The addition of EBL would reduce total portfolio risk more than the addition of HC
  - (c) The required return for HC is greater than the required return for EBL
  - (d) The required return for EBL is greater than the required return of HC
  - (e) As the returns in the market changes, the changes in the returns in EBL stock will be higher than the changes in the returns on HC stock. (1 mark)

[<Answer>](#)

30. The correlation coefficient between return on stock of M/s. Sonu Ltd. and the market return is 0.45. The variance of returns on M/s. Sonu Ltd. is 3.33 and that for the market return is 10. The risk-free rate of return is 9% and the market return is 16%. The last paid dividend is Rs.2 and the current purchase price is Rs.25. The growth rate for the company is 3%.

The required rate of return on the security as per the Capital Asset Pricing Model is

- (a) 05.12%
- (b) 06.30%
- (c) 07.25%
- (d) 08.14%
- (e) 10.82%

(2marks)

[<Answer>](#)

31. Mr. Sampath has invested in three securities: A, B, and C. The following table shows the beta of each security and the amount of money invested in each security:

Security	Beta	Amount of money invested (Rs.)
A	1.50	40,000
B	2.00	25,000
C	0.50	1,00,000

Beta of his portfolio is

- (a) 0.85
- (b) 0.97
- (c) 1.09
- (d) 1.25
- (e) 1.40.

(2marks)

[<Answer>](#)

32. 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 contribution of the firm is just enough to meet the fixed costs.

(1 mark)

[<Answer>](#)

33. Which of the following is **true** with respect to the Degree of Financial Leverage (DFL)?

- (a) DFL of a company is constant irrespective of the change in earnings before interest and taxes (EBIT)
- (b) DFL is equal to zero at the financial break-even point
- (c) DFL is less than zero if EBIT lies below the financial break-even point
- (d) DFL increases as EBIT increases above the financial break-even point
- (e) The change in preference dividend does not influence the DFL.

(1 mark)

[<Answer>](#)

34. Consider the following information:

Quantity produced	1,000 units
Variable cost per unit	Rs.4,75,000
Selling price per unit	Rs.6,00,000
Fixed cost	Rs.5.00 crores
Interest	Rs.2.00 crores
Preference dividend	Nil
Tax rate	30%

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

- (a) Rs.1.40crore
- (b) Rs.2.00 crore
- (c) Rs.2.86 crore
- (d) Rs.5.00 crore
- (e) Rs.5.50 crore.

(1 mark)

[<Answer>](#)

35. Invent Investment Fund holds the following portfolio:

Stock	Investment (Rs.crore)	Beta
A	200	0.5
B	200	2
C	100	4

The required rate of return on the market is 15.35% and that of the above portfolio according to CAPM is 20.4%.

The fund manager has proposed to sell C for Rs.100 crores and use the proceeds to purchase stock D which has a beta of 3. The required rate of return of the new portfolio according to CAPM is approximately

- (a) 12.82%
- (b) 17.09%
- (c) 19.14%
- (d) 20.28%
- (e) 21.37%.

(3marks)

[<Answer>](#)

36. Which of the following results from the early repayment of the debenture capital by a firm?

- (a) The degree of operating leverage increases
- (b) The degree of operating leverage decreases
- (c) The degree of financial leverage increases
- (d) The degree of financial leverage decreases
- (e) The degree of total leverage remains unchanged.

(1 mark)

[<Answer>](#)

37. The following information pertains to Anurag Foods Ltd.:

Total sales	Rs.1400,000
Contribution ratio	25%
Fixed expenses	Rs.150,000
Outstanding bank loan	Rs.400,000 @ 12.50%
Preference Share Capital	Rs.200,000 @ 15.00%
Applicable Tax rate	40 %

The Degree of Financial Leverage (DFL) for the company is

- (a) 1.33
- (b) 1.50
- (c) 1.67
- (d) 2.00
- (e) 2.33.

(2marks)

[<Answer>](#)

38. Consider the following information pertaining to Visakha Metals:

Quantity produced	1,000 units
Variable cost per unit	Rs.4,75,000
Selling price per unit	Rs.6,00,000
Fixed cost	Rs.5 crore

Operating break even point occurs approximately at

- (a) 250 units
- (b) 400 units
- (c) 500 units
- (d) 600 units
- (e) 650 units.

(2marks)

[<Answer>](#)

39. Other things being equal, which of the following will cause an increase in the yield to maturity?

- (a) Decrease in coupon rate
- (b) Increase in the issue price
- (c) Decrease in the amount repayable at maturity
- (d) Decrease in the maturity period
- (e) Increase in the maturity period.

(1 mark)

40. If the fixed cost is Rs.30,000, the operating BEP in units is 3000 and financial BEP is Rs.5,000, the overall BEP in units is [<Answer>](#)

- (a) 2000
- (b) 2500
- (c) 3000
- (d) 3500
- (e) 4000.

(2marks)

41. Which of the following will lead to an increase in the expected Price-Earning ratio? [<Answer>](#)

- I. Increase in the expected dividend payout ratio.
- II. Increase in the cost of equity capital.
- III. Increase in the growth rate.

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

(1 mark)

42. Rajesh Ltd. estimates that if its sales increase by 10%, its net income will increase by 18%. The company's EBIT equals Rs.24,00,000 and its interest expense is Rs.4,00,000. The company's operating costs include fixed and variable costs. The level of the company's fixed operating costs is [<Answer>](#)

- (a) Rs. 4,50,000
- (b) Rs. 6,66,667
- (c) Rs.12,00,000
- (d) Rs.20,00,000
- (e) Rs.21,25,000.

(3marks)

43. A convertible debenture of Rs.500 par value is selling at Rs.520. If the conversion ratio is 20, the conversion price is [<Answer>](#)

- (a) Rs. 19.23
- (b) Rs. 20.18
- (c) Rs. 25.00
- (d) Rs. 26.00
- (e) Rs. 27.50.

(1 mark)

44. Which of the following statements is **true** with respect to the going concern value of a business? [<Answer>](#)

- (a) It is the amount required to be spent if it were to replace its existing assets in the current condition
- (b) It is generally the minimum value that a company might accept, if it wishes to sell its business
- (c) It is the price prevailing in the market at which the assets are being sold or bought
- (d) It is always higher than the liquidation value, the difference accounting for the usefulness of assets and value of intangibles
- (e) It is similar to the book value of the assets.

(1 mark)

45. The price of the equity shares of Nebula Systems is expected to appreciate from Rs.25 to Rs.28 during the coming year. The dividend expected by the end of the year is Rs.3 per share. The expected annual return from that stock is [<Answer>](#)

- (a) 12%
- (b) 15%
- (c) 20%
- (d) 24%
- (e) 28%.

(1 mark)

[<Answer>](#)

46. Consider the following data pertaining to a bond:

Face value of a bond	Rs.1,00,000
Issued at a discount of	10%
Time period of redemption	20 years
Coupon rate	12% p.a.
Redemption price	Rs.1,10,000

The yield to maturity of the bond as per the approximation method is

- (a) 10.0%
- (b) 11.0%
- (c) 11.9%
- (d) 13.0%
- (e) 13.7%.

(2marks)

[<Answer>](#)

47. Which of the following statements is/are **true** regarding a warrant?

- I. The actual value of warrant will be equal to the theoretical value on the expiry date.
- II. The premium associated with a warrant, increases as the expiry date approaches.
- III. The greater the price volatility of the underlying stock, the larger the premium.

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

(1 mark)

[<Answer>](#)

48. Mr. Sunil purchased a coupon-bearing debenture of the face value Rs.1,500 for Rs.1,800. At the end of the year the price of the security increased to Rs.2,000. If the one year holding period rate of return of Mr. Sunil on this debenture is 20%, the amount of coupon received on the debenture is

- (a) Rs. 50
- (b) Rs. 60
- (c) Rs.100
- (d) Rs.110
- (e) Rs.160.

(1 mark)

[<Answer>](#)

49. Ashok Ltd. and Bharat Ltd. are two companies that manufacture computer hardware. The most recent dividend paid by these two companies is Rs.1.80 per share and the required rate of return for both the companies is 11%. The intrinsic value of the share of Ashok Ltd. is Rs.34.12. The dividends of Bharat Ltd. are expected to grow at a rate of 8% annually for 3 years, followed by "x%" annual growth rate from year 4 to infinity. The price of the security of Ashok Ltd. is greater than the price of the share of company Bharat by Rs.7.60. The value of "x" is

- (a) 1%
- (b) 2%
- (c) 3%
- (d) 4%
- (e) 5%.

(3marks)

[<Answer>](#)

50. Which of the following statements is/are **true**?

- I. Other things being equal, 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 being equal, 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 (II) above
- (d) Both (I) and (III) above
- (e) Both (II) and (III) above.

(1 mark)

51. The share prices of Yummy Food Products Ltd, as on March 31, 2007 and March 31, 2008 were Rs.75 and Rs.82 respectively. The company has declared a dividend of 20% during the year 2007-08. The face value of the company's share is Rs.10. The wealth ratio for the year 2007-08 is [<Answer>](#)
- (a) 2.69
  - (b) 2.04
  - (c) 1.98
  - (d) 1.12
  - (e) 0.88.
- (1 mark)** [<Answer>](#)
52. Which of the following is/are **not** feature(s) of preference shares? [<Answer>](#)
- I. Preference shareholders have preference over equity shareholders to the post-tax earnings in the form of dividends.
  - II. Preference-dividend is tax deductible.
  - III. Voting rights can be given to the preference shareholders in the case of cumulative preference shares, if there are arrears in dividends for two or more years.
- (a) Only (I) above
  - (b) Only (II) above
  - (c) Only (III) above
  - (d) Both (I) and (III) above
  - (e) Both (II) and (III) above.
- (1 mark)** [<Answer>](#)
53. Sunshine Industries Ltd. recently paid Rs.4.00 per share as dividend for the last year. Its dividend is expected to grow by 15 percent every year for the next three years, thereafter it will continue a normal growth rate of 6 percent per annum. If the required rate of return is 16 percent, the intrinsic value of the equity share of Sunshine Industries Ltd. is approximately [<Answer>](#)
- (a) Rs.35
  - (b) Rs.41
  - (c) Rs.47
  - (d) Rs.53
  - (e) Rs.59.
- (3marks)** [<Answer>](#)
54. Which of the following sources of long-term finance arises out of the operations of a profit making business? [<Answer>](#)
- (a) Preference capital
  - (b) Equity capital
  - (c) Debenture capital
  - (d) Term loan
  - (e) Reserves and surplus.
- (1 mark)** [<Answer>](#)
55. The current price of a share of Avanthi Ltd. is Rs.50. The company proposes to issue right shares at Rs.45 per share and wants to keep the ex-right price of the share at least at Rs.49. the ratio at which the company should offer the right to its shareholders is [<Answer>](#)
- (a) 2
  - (b) 3
  - (c) 4
  - (d) 5
  - (e) 6.
- (2marks)** [<Answer>](#)
56. Which of the following statements is **false**? [<Answer>](#)
- (a) Firms which have substantial investment opportunities generally have high pay out ratios
  - (b) A firm which has difficulty in raising finances externally, will usually follow a conservative dividend policy
  - (c) The cost of external equity is higher than the cost of retained earnings
  - (d) External financing by rights issue does not involve dilution of control
  - (e) Share capital of a company increases following a bonus issue.
- (1 mark)**

57. The dividends of Johnson Labs Ltd. are expected to grow at 18% for next five years and thereafter stabilize at 8% forever. The current EPS of the company is Rs.12.00 and the payout ratio is 40%. If the investors' required rate of return is 9%, the P/E multiple for the company is [<Answer>](#)

- (a) 35.67
- (b) 44.31
- (c) 48.67
- (d) 54.26
- (e) 66.80.

(3marks)

58. Which of the following statements is/are **true** regarding Earnings Price Ratio Approach of cost of equity? [<Answer>](#)

- I. The ratio assumes that the growth in EPS is constant.
- II. The results are accurate, when the dividend pay-out ratio is less than 100 percent.
- III. The results are accurate, when the retained earnings are expected to earn a rate of return more than the cost of equity.

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

(1 mark)

59. The balance sheet of Eagle International Service Ltd. shows debt of Rs.222.60 million. The firm has 49 million outstanding shares, and the market price of each share is Rs.85 (Face Value Rs.100). It is considering to issue Rs.850 million more debt and use the cash to repurchase its' equity. Management estimates that as a result of this restructuring, the market price per share will jump to Rs.100. The value lost, if the firm doesn't take up the restructuring is [<Answer>](#)

- (a) Rs.100 million
- (b) Rs.387 million
- (c) Rs.512 million
- (d) Rs.585 million
- (e) Rs.735 million.

(2marks)

60. Which of the following features distinguishes cumulative preference shares from non-cumulative preference shares? [<Answer>](#)

- (a) Cumulative preference shares are always irredeemable
- (b) Cumulative preference share holders are eligible to receive dividends at a variable rate not exceeding a specified limit
- (c) Cumulative preference share holders are eligible to get all the arrears of preference dividends before the declaration of any equity dividend
- (d) Cumulative preference share holders enjoy right to participate in surplus profits after equity dividends have been paid
- (e) Cumulative preference shares may be redeemed after a specified maturity period at the discretion of the company.

(1 mark)

61. The market values of debt and equity of a firm are Rs.80 lakh and Rs.120 lakh and the costs of equity and debt are 16% and 14% respectively. Assuming the firm follows 100% dividend payout ratio and there is no income tax, corporate or personal tax, the net operating income for the firm is [<Answer>](#)

- (a) Rs.27.2 lakh
- (b) Rs.28.4 lakh
- (c) Rs.30.4 lakh
- (d) Rs.31.6 lakh
- (e) Rs.32.4 lakh.

(2marks)

62. In the presence of floatation costs, the cost of external equity is [<Answer>](#)

- (a) More than the cost of existing equity capital
- (b) Less than the cost of existing equity capital
- (c) Equal to the cost of existing equity capital
- (d) Equal to the cost of long-term debt
- (e) Equal to the cost of short-term debt.

(1 mark)

[<Answer>](#)

63. Consider the following data regarding an electronic goods manufacturing company:

Cost of equity	16%
Cost of debt	12%
Debt/Equity	1.0

The increase (decrease) in the cost of capital, if debt to equity of the company is changed to 0:1 is

- (a) (2.00)%
- (b) (0.18)%
- (c) 0.18%
- (d) 2.00%
- (e) 4.20%.

(2marks)

[<Answer>](#)

64. In the calculation of the weighted average cost of capital, the weights based on the market values are preferred because,

- I. The weights based on the book values are difficult to estimate, while calculating the weighted average cost of capital.
- II. Weights based on the market values are fairly constant in nature.
- III. Weights based on the book values have a high degree of volatility.
- IV. The weights based on the book values are historical in nature and may not reflect the true economic value.

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

(1 mark)

[<Answer>](#)

65. If the tax rate on stock income is 20%, the tax rate on debt income is 25% and the corporate tax rate is 40%, the tax advantage associated with the total assets of Rs.10,00,000 out of which 40% has been contributed by the promoters, is

- (a) Nil
- (b) Rs.2,16,000
- (c) Rs.2,62,500
- (d) Rs.3,84,000
- (e) Rs.5,62,500.

(2marks)

[<Answer>](#)

66. The return on investment of a firm is 14% and cost of equity capital is 12%. In order to maximize the value of a firm according to Walter Model, the firm should

- (a) Adopt 100% dividend pay-out policy
- (b) Not pay dividends at all
- (c) Be indifferent to the dividend policy
- (d) Plough back 50% of profits and pay the rest as dividends
- (e) Leave the decision of dividend payment to the discretion of Board of Directors.

(1 mark)

[<Answer>](#)

67. Shiny Paints Ltd. had 10 lakh equity shares outstanding at the beginning of July 2008 and these shares were traded in NSE at Rs.150 each. The rate of capitalization appropriate to the risk class to which the firm belongs is 12%. The net income for the year is Rs.2 crore and the investment budget is Rs.4 crore. Assume that no dividend is declared and the additional fund requirement is financed by new issue of equity shares. If Modigliani-Miller hypothesis holds good, the number of equity shares to be issued by the company is

- (a) 1,09,048
- (b) 1,09,248
- (c) 1,19,048
- (d) 1,19,248
- (e) 1,29,348.

(2marks)

68. Which of the following is not a common assumption of the Walter's model and Gordon's model on dividend policy? [<Answer>](#)

- (a) Retained earnings represent the only source of financing for the firm
- (b) The rate of return on the firm's investment is constant
- (c) The cost of capital of the firm remains constant
- (d) The firm has an infinite life
- (e) The cost of capital is greater than the growth rate.

(1 mark)

69. Which of the following statements is **true** for a firm with EPS of Rs.2 and a pay out ratio of 25%? [<Answer>](#)

- (a) Book value of the shares will remain unchanged
- (b) Book value per share of equity will increase by Re.0.5
- (c) Book value per share of equity will increase by Rs.1.5
- (d) Book value per share of equity will decrease by Re.0.5
- (e) Book value per share of equity will decrease by Rs.1.5.

(1 mark)

70. Consider the following information regarding Sunidhi Ltd.:

Face value of the share	Rs.20
Market price of the share	Rs.40
Cost of equity capital	16%
Internal rate of return	14%
Expected earnings per share	Rs.12

If the market price per share has to increase to Rs.70, according to Walter's model on dividend policy, the dividend payout ratio of the company should be approximately

- (a) 08%
- (b) 12%
- (c) 25%
- (d) 47%
- (e) 80%.

(2marks)

71. Dhruv Ltd. has Rs.100 preference shares redeemable at a premium of 10% with 15 years to maturity. The preference dividend rate is 12%. The cost of the preference capital, assuming that shares were issued at par with flotation cost of 5% is [<Answer>](#)

- (a) 12.43%
- (b) 13.02%
- (c) 14.25%
- (d) 14.33%
- (e) 15.33%.

(2marks)

72. A firm has 80,00,000 ordinary shares outstanding. The current market price per share is Rs.33 and the book value per share is Rs.18. The firms' EPS is Rs.3.60 and dividend per share is Rs.3.00. The growth rate, assuming that past performance will continue is approximately [<Answer>](#)

- (a) 0.50%
- (b) 1.65%
- (c) 2.92%
- (d) 3.70%
- (e) 4.61%.

(2marks)

**END OF QUESTION PAPER**

## Suggested Answers

### Financial Management-I (MB2E1): January 2009

Answer	Reason
1. C	The management of an organization exercises its control on the overall performance of the organization on the basis of the reports sent by the finance manager on the financial performance of the individual departments. Since this function of the finance manager helps the management to exercise control over the overall performance of the organization it is considered to be a part of the control function of the finance manager. ≤
2. 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.
3. D	To promote an orderly maintenance of the foreign exchange market in India; is the objective of Foreign Exchange Regulation Act (FERA). Remaining all are the objectives of Companies Act. ≤
4. C	The focal point of financial management in a firm is the creation of value for shareholders. ≤
5. C	Venture capital funding companies generally provide risk capital to the technology oriented and highly risky businesses. ≤
6. D	MMMFs were setup to make available the benefits of investing in money markets to small investors. ≤ MMMFs are mutual funds that invest primarily in money market instruments of very high quality and of very short maturities. A closed-ended scheme offered by MMMFs is available for subscription for a limited period and is redeemed at maturity.
7. B	The commercial banks are compulsive investors in the government securities. ≤ Nationalized banks, financial institutions and large corporate bodies prefer long-dated securities. RBI is the market maker of government securities.
8. E	Merchant banks are generally engaged in several services like, management, underwriting and marketing of new issues; project promotion services and project finance; syndication of credit and other facilities; leasing including project leasing; corporate advisory services; etc. These services are generally not useful for the retail investors. While the other entities as mentioned in the other alternatives generally deal with the retail investors for raising funds from them as well as for lending to them. ≤

9. D The options (a) and (b) represent the acts of hedgers who are interested to minimize their risk in a volatile market. The option (c) represents the act of the speculators who wants to make profits from the price movements in a volatile market through speculation. The option (d) represents the act of the arbitrageurs who take the opportunity of improper pricing in different markets and imparts a better efficiency in the system but not hedging hence option (e) is not true. ≤
10. D 
$$\text{Yield is calculated as } \frac{F-P}{P} \times \frac{365}{d}$$
 Where, F is face value  
P is purchase price  
d is the duration/maturity period  
$$\text{In the given case, yield} = \frac{100-P}{P} \times \frac{365}{x}$$
 If yield = 11.5%,  
$$\frac{100-94.6}{94.6} \times \frac{365}{x} = 0.115$$
  
$$\frac{100-94.6}{94.6} = \frac{0.115 \times x}{365}$$
 x = 181.17 days . ≤
11. A 
$$\text{Interest} = \left(1 + \frac{0.09}{2}\right)^2 - 1 = 9.2\%$$
 Future value of the annuity = 10,000 FVIFA<sub>(9.2, 3)</sub>  
= Rs. 32,845 ≤
12. 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. ≤
13. E For the calculation of the present value interest factor of an annuity (PVIFA), it is assumed that the cash flow will occur at the end of the period under consideration. PVIFA is also reciprocal to the capital recovery factor. Hence, the option (e) is the answer. ≤
14. A The amount of each installment will be ≤  
$$= \frac{1,00,000}{\text{PVIFA}(10\%, 10 \text{ years})} = \frac{1,00,000}{6.145} = 16,273.393$$
  
= 16,273 (approx)
15. B 18,00,000 = A × FVIFA (8,4) × FVIF (10,6) + A × FVIFA (10,6) ≤  
18,00,000 = A × 4.506 × 1.772 + A × 7.716  
A = Rs 1,14,645

16. D According to the Realized Yield approach, the past returns on a security are taken as a proxy for the estimation of return required in the future by the investors. Hence, statement I is true. The assumptions behind this approach are that (a) the actual returns have been in line with the expected returns. And (b) the investors will continue to have the same expectations from the security. Hence, statement II is not true. The result of this approach is taken as a starting point for the estimation of the required rate of return. Hence, statement III is true. ≤
- So, option d is the correct answer.
17. B Interest earned in the third year =  $1000 [1.07]^3 - (1.07)^2] = \text{Rs } 80.14 \cong \text{Rs } 80$  ≤
18. C The features of certificate of deposit issued by bank : ≤
- It is a document of title to a time deposit
  - It is issued at a discounts to face value
  - It is freely transferable by endorsement and delivery
  - It attracts stamp duty and there is no grace period, as in the case of bill financing.
19. A  $A = P \times \text{FVIFA}(k,n)$  ≤
- $200000 = P \times \text{FVIFA}(11, 20)$
- $$P = \frac{200000}{64.203} = 3115$$
20. B According to CAPM, required rate of return =  $R_f + \beta (R_m - R_f)$  ≤
- Where  $R_f$  is the risk-free rate of return,  $\beta$  is the Beta of the stock and  $R_m$  is the market return. If Beta is equal to zero, required rate of return is equal to risk-free rate of return. Hence, (II) is true.
- In the SML equation, slope is measured by  $R_m - R_f$  and the Beta of the stock is not relevant to find the slope of SML. Hence, (I) is not true. A stock whether it will lie below or above the SML depends on whether the stock's required rate is more than or less than the expected rate of return. It is immaterial whether the Beta is equal to zero or not. Hence, (III) is not true and the answer is (b).
21. C The amount of risk reduction depends on the degree of correlation between the stocks. ≤
- The portfolio risk will be minimum, if the stocks are perfectly negatively correlated. Hence, statement III is correct.
- Lower the degree of positive correlation, greater is the amount of risk reduction that is possible. Hence, statement II is incorrect.
- Statement I is incorrect as the diversifying effect of each additional stock diminishes with increase in number of stocks. Hence, (c) is the answer.
22. B Risk arising due to the uncertainty of the time element in buying and selling securities without significant price concession is referred to as liquidity risk. Hence, option (b) is the answer. ≤
- Market risk refers to the variability of returns due to the fluctuations in the securities market. Risk of reduction of purchasing power of the securities is referred to as inflation risk or purchasing power risk.
23. B  $200,000/\text{PVIFA}(X,24) = 9414.87$  ≤
- $X = 1\%$
- 1<sup>st</sup> month Int. Rs.2000 Principal Rs.7414.87
- 2<sup>nd</sup> month Int. Rs.1925.85 principal Rs. 7489.02
- 3<sup>rd</sup> month Int. Rs. 1850.96 Principal Rs.7563.91

24. C Standard deviation, a measure of dispersion around the expected (or average), is the square root of the variance of the rates of return. If the variance is higher, the standard deviation will also be higher. Hence, III is true. ≤
- Range is referred as the difference between the highest and lowest values. Standard deviation may be the highest, irrespective of the range being the lowest or highest. Hence, I is not true. Highest mean does not mean that it should have highest standard deviation. Hence, II is also not true.
25. D 
$$\beta = \frac{\text{Cov}(i, m)}{\sigma_m^2} \quad \text{or} \quad \text{Cov}(i, m) = \beta \cdot \sigma_m^2 = 1.63 (16.25)^2 = 430.42\%.$$
 ≤
26. D Capital structure decision is a managerial decision which influences the risk and return of the investors. ≤
- The capital structure of a company refers to the mix of long-term finances.
- Hence, statements I and III are true.
- The company has to plan its capital structure at the time of promotion itself and also subsequently when ever it has to raise additional funds for various new projects.
- So, option d is correct.
27. B The beta coefficient of a security indicates the systematic risk of a security while the unsystematic risk is estimated by deducting it from total risk i.e. variance of returns from that security. The total risk and financial risk of a company, not for a security, is measured by the total leverage and financial leverage of the company at a certain level of operations. There is no measurement called the operating risk of a company. ≤
28. D According to CAPM, risk premium of a security is the product of beta and difference between risk-free rate and return on market. ≤
- In the given case, risk premium of stock =  $1.5 (0.15 - 0.09) = 9\%$ .
29. C Since HC has a greater beta so its required return is greater than the required return for MW. Hence, option (c) is the answer. ≤
- As the beta of HC is more than the beta of EBL, the addition of stocks will increase the risk of the portfolio. If the number of shares is added to the portfolio, the risk will also increase.
- As the returns in the market changes, the changes in the returns in HC stock will be higher than the changes in the returns on EBL stock. Hence, other than (c), all the options are not true.
30. E The expected rate of return as per the Capital Asset Pricing Model can be computed as: ≤
- $$k_x = R_f + \beta (k_m - R_f)$$
- Where  $k_x$  is the required rate of return on the security,  
 $k_m$  is the return on market portfolio,  
 $R_f$  is the risk free rate of return
- $$\beta_x = \frac{\text{Cov}(k_j, k_m)}{\text{Var}(k_m)} = \frac{\rho_{xm} \sigma_x \sigma_m}{\text{Var}(k_m)} = \frac{0.45 \times \sqrt{10} \times \sqrt{3.33}}{10} = 0.26.$$
- Therefore,  $k_x = R_f + \beta (k_m - R_f) = 0.09 + 0.26 \times (0.16 - 0.09) = 10.82\%$   
Hence, the required rate of return as per CAPM = 10.82%.

31. B Total investment in the portfolio is Rs.1,65,000. ≤  
 Proportion of money invested in Security A = Rs.40,000/Rs.1,65,000 = 0.2424  
 Proportion of money invested in Security B = Rs.25,000/Rs.1,65,000 = 0.1515  
 Proportion of money invested in Security C = Rs.1,00,000/Rs.1,65,000 = 0.6061  
 Portfolio beta =  $\sum W_i \beta_i = (0.2424)(1.5) + (0.1515)(2.00) + (0.6061)(0.5) = 0.97$   
 Hence (b) is the answer.
32. C 
$$\text{Degree of Total Leverage (DTL)} = \frac{Q(S-V)}{Q(S-V) - I - \frac{D_p}{1-T}}$$
 ≤  
 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
33. C 
$$\text{Degree of Financial Leverage (DFL)} = \frac{\text{EBIT}}{\text{EBIT} - I - \frac{D_p}{1-T}}$$
 ≤  
 Now, at the financial break – even point,  $\text{EBIT} = I + \frac{D_p}{1-T}$   
 If  $\text{EBIT} < \left( I + \frac{D_p}{1-T} \right)$ , DFL will be negative.
34. B 
$$\text{Financial break even point} = \text{EBIT} = I + \frac{D_p}{1-t}$$
 ≤  
 Where,  
 I = Interest  
 D<sub>p</sub> = Preference Dividend  
 t = Tax rate  
 Given: D<sub>p</sub> = 0.  
 ∴ In this case, at financial break even point EBIT = I.  
 ∴ At financial break even point, EBIT = Rs.2 crore. Hence the answer is (b).
35. C Weighted beta =  $(200 \times 0.5 + 200 \times 2 + 100 \times 4)/500 = 1.8$  ≤  
 Required rate of return according to CAPM =  $R_f + B_p (R_m - R_f)$   
 =  $R_f + 1.8(15.35 - R_f) = 20.4$   
 $\Rightarrow R_f + 27.63 - 1.8 R_f = 20.4 \Rightarrow 0.8 R_f = 7.23 \Rightarrow R_f = 9.03\%$   
 New weighted Beta =  $(200 \times 0.5 + 200 \times 2 + 100 \times 3)/500 = 1.6$   
 New required rate of return =  $9.03 + 1.6(15.35 - 9.03) = 19.142\%$ .
36. D If a firm retires its debentures prematurely, its interest burden will come down that will decrease the financial leverage and total leverage of the company. It does not have any impact on the operating leverage of the company. So, the option (d) is correct. ≤

37. D For Garden Restaurant, the amount of contribution = Rs.14,00,000 × 25 percent = Rs.350,000. ≤  
 EBIT = Rs.350,000 – Rs.150,000 = Rs.200,000  
 Interest on bank loan = Rs.400,000 × 12.50 percent = Rs.50,000  
 Preference Dividends = Rs.200,000 × 15 percent = Rs.30,000.  
 So, the degree of financial leverage (DFL) will be:
- $$DFL = \frac{\frac{EBIT}{EBIT - I - \frac{D_p}{1-T}}}{\frac{200,000}{200,000 - 50,000 - \frac{30,000}{1-0.4}}} = \frac{200,000}{200,000 - 100,000} = 2.00$$
- The required degree of financial leverage (DFL) = 2.00
38. B Operating BEP is the level of Q at which EBIT is zero. It is calculated as ≤  

$$\frac{F}{S - V}$$
 Where, F is fixed cost and S & V are selling price and variable cost per unit respectively.  
 In the given case, Operating BEP occurs at,  

$$Q = \frac{500}{6 - 4.75} = 400 \text{ units.}$$
39. D Other things being equal, if there is a decrease in maturity period, the redemption price is received earlier and hence the discounted price will be more compared to the discounted price in case of a higher maturity period. Hence, the yield on the bond will be more in case of lower maturity period. Hence (d) is true and (e) is not true. Decrease in coupon rate will decrease the cash inflows and hence decrease the yield to maturity. Hence, (a) is not true. Increase in the issue price will increase the cash outflow (issue price) for the same inflows (amount repayable at maturity and coupon payments) and hence decrease the yield to maturity. Hence (b) is also not true. Decrease in the amount repayable at maturity will decrease the cash inflows and hence the yield. Hence, (c) is also not true. ≤
40. D Overall BEP=(F+I+D<sub>p</sub>/1-t)/S-V ≤  
 Financial BEP=I+D<sub>p</sub>/1-t=Rs.5000  
 Operating BEP=F/S-V=3000  
 S-V=Rs.30,000/3000=10  
 Overall BEP=(5000+30000)/10=3500.
41. D ≤  
 Expected Price-earning ratio is computed as 
$$\frac{\text{Expected Dividend payout ratio}}{\text{Cost of capital} - \text{growth rate}}$$
  
 From the above equation, we can conclude that increase in the expected dividend payout ratio and increase in the growth rate will lead to increase in Expected Price-earning ratio. Hence statements I and III are correct. Therefore, option (d) is the answer.  
 Increase in the cost of capital will decrease the Expected Price-earning ratio.  
 Hence, (II) is incorrect.

42. C We're given enough information to find both DFL and DTL. ≤

$$DTL = DOL \times DFL$$

$$= \frac{\%EBIT}{\%Sales} \times \frac{\%EPS}{\%EBIT}$$

$$= \frac{\%EPS}{\%Sales}$$

$$= \frac{18\%}{18\%}$$

$$DTL = 1.8.$$

$$DFL = \text{Rs.}24,00,000 / (\text{Rs.}24,00,000 - \text{Rs.}4,00,000)$$

$$= 1.2.$$

Given  $DTL = DFL \times DOL$ , we can calculate  $DOL = 1.5$ .

Recognizing  $S - VC - FC = EBIT$ ,  $1.5 = (S - VC) / \text{Rs.}24,00,000$  or  $S - VC = \text{Rs.}36,00,000$ .

The difference between  $(S - VC)$  and  $EBIT$  must represent fixed operating costs.

Thus,  $FC = \text{Rs.}36,00,000 - \text{Rs.}24,00,000 = \text{Rs.}12,00,000$ .

43. C Conversion price = Face value / conversion ratio = 500 / 20 = Rs.25.00 ≤

44. D Going Concern Value is the amount that a company could realize if it sold its business as an operating one. Its value would always be higher than the liquidation value, the difference accounting for the usefulness of assets and value of intangibles. Hence, (d) is true. ≤

Replacement Value is the amount that a company would be required to spend if it were to replace its existing assets in the current condition. Liquidation Value is the amount that a company could realize if it sold its assets after having terminated its business. It is generally a minimum value which a company might accept if it sells its business. Market Value of an asset or security is the current price at which the asset or the security is being sold or bought in the market. Book value is an accounting concept and it is not the same as the going concern value.

45. D The expected return from the equity shares of Nectar systems is  $K_e = \frac{D_1 + (P_1 - P_0)}{P_0}$  ≤

Here,  $D_1 = \text{Rs.}3.00$

$$P_1 = \text{Rs.}28.00$$

$$P_0 = \text{Rs.}25.00$$

Therefore, the expected return on equity  $K_e = \frac{3 + (28 - 25)}{25} \times 100\% = 24$  percent.

46. D ≤
- $$\frac{I + (F - P) / n}{(F + P) / 2}$$
- Approximate YTM is calculated as
- Where
- I is the interest paid during the year
- F is the redemption price
- P is the Issue Price, and
- n is the maturity period.
- In the given case, approximate YTM
- $$= \frac{1,00,000 \times 0.12 + (1,10,000 - 1,00,000 \times 0.9) / 20}{(1,10,000 + 1,00,000 \times 0.9) / 2}$$
- $$= \frac{12,000 + (1,10,000 - 90,000) / 20}{(1,10,000 + 90,000) / 2}$$
- $$= \frac{13,000}{1,00,000} = 0.13 = 13\%$$
47. D ≤
- A warrant is a call option to buy a stated number of shares. It gives the holder the right to subscribe to the equity shares of the company. When a warrant is issued, the exercise price is always greater than the current market price. This price may be fixed for entire life of warrant or increased periodically. The existence of positive premium on a warrant means that it will be more beneficial for the warrant holder to sell his warrant, thus realizing the theoretical value plus premium when he exercises it. The premium associated will shrink as the expiry date approaches. The actual value of the warrant will be equal to the theoretical value on the expiry date. Higher the volatility of the underlying stock, larger the premium fixed. Hence, statements (I) and (III) are true and (II) is not true.
48. E ≤
- $$\frac{\text{Coupon payment} + \text{Appreciation in the price}}{\text{Purchase Price at the beginning of the year}}$$
- Return on debenture =
- $$\text{i.e. } 0.20 = \frac{\text{Coupon payment} + (2000 - 1800)}{1800}$$
- Hence coupon payment =  $1800 \times 0.2 - 200 = \text{Rs. } 160$ .
- Hence, (e) is the answer.
49. C ≤
- Intrinsic value (IV) of A Ltd. = Rs.34.12
- ∴ IV of B Ltd. =  $34.12 - 7.60$
- Price of B Ltd. =  $34.12 - 7.60 = \text{Rs. } 26.52$
- Price = PV of dividends
- $$= \frac{1.8(1.08)}{1.11} + \frac{1.8(1.08)^2}{(1.11)^2} + \frac{1.8(1.08)^3}{(1.11)^3} + \frac{1.8(1.08)^3(1+x)}{(k-g)(1.11)^3} = 26.52$$
- $$= 1.751 + 1.704 + 1.658 + \frac{1.658(1+x)}{0.11-x} = 26.52$$
- $$\frac{1.658(1+x)}{0.11-x} = 21.407$$
- $$1.658 + 1.658x = 2.355 - 21.407x$$
- $$23.065x = 0.6968$$
- $$x = 0.03$$
- Hence  $x = 3\%$  and answer is (c).

50. D 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. Hence option d is the answer. ≤

51. D 
$$\frac{D_t + P_t}{P_{t-1}}$$
 Wealth ratio,  $W_t = \frac{D_t + P_t}{P_{t-1}}$  where  
 $D_t$  = Dividend per share for year t payable at the end of year  
 $P_t$  = Price per share at the end of the year t. ≤

$$\text{Therefore, } W_t = \frac{(0.2)(10) + 82}{75} = 1.12$$

52. B Preference shares have the following features: ≤

- i. Preference shareholders earn a fixed rate of dividend.
- ii. The dividends received by preference shareholders are not tax-deductible.
- iii. Preference shareholders have preference over equity shareholders to the post-tax earnings in the form of dividends, and assets in the event of liquidation.
- iv. With the commencement of Companies Act, 1956, the issue of preference shares with voting rights has been restricted to the following cases:
  - When there are arrears in dividends for two or more years in case of cumulative preference shares.
  - When preference dividend is due for a period of two or more consecutive preceding years.
  - When in the preceding six years including the immediately preceding financial year, the company has not paid the preference dividend for a period of three or more years.

Hence statement (I) and (III) are the features and (II) is not feature of preference shares and the answer is (b).

53. D Dividends for the next three years are as follows: ≤

Year	1	2	3
Dividend (Rs.)	$4 \times 1.15 = 4.60$	$4 \times (1.15)^2 = 5.29$	$4 \times (1.15)^3 = 6.084$

So, the required intrinsic value of the share is

$$\begin{aligned} & \frac{4.60}{1.16} + \frac{5.29}{(1.16)^2} + \frac{6.084}{(1.16)^3} + \frac{6.084 \times 1.06}{0.16 - 0.06} \times \frac{1}{(1.16)^3} \\ & = 3.97 + 3.93 + 3.90 + 41.32 = 53.12 \approx \text{Rs.}53 \text{ (approx.)} \end{aligned}$$

54. E Preference capital (a) equity capital (b) debenture capital (c) and term loan (d) are all long-term sources of funds, which are tapped from outside the firm. Reserves and surplus (e) represent retained earnings, which are generated out of profits of the firm and they are available to the firm over the long-term. ≤

55. C 
$$\text{Ex-rights price of a share} = \frac{NP_0 + S}{N+1} = \text{Rs.49}$$
 Assume x as the ratio of existing shares to right.

$$\frac{50x + 45}{X + 1} = 49.$$

Therefore,  $X + 1 = 49$ .

$$X = 49 - 45 = 4.$$

56. A If a firm has return on investment higher than its cost of capital, in other words, if it has substantial investment opportunities, it should not pay dividends but to retain the amount. Hence, the correct answer is (a).

57. E

Year	EPS (Rs.)	DPS (Rs.)	PV of DPS @ 9% (Rs.)
1	14.16	5.664	5.196
2	16.71	6.684	5.626
3	19.72	7.888	6.091
4	23.27	9.308	6.594
5	27.46	10.984	7.139
PV of dividends			<b>30.646</b>

$$\frac{D_5(1+g)}{k_e - g} = \frac{10.984(1+0.08)}{0.09 - 0.08} = \text{Rs.1,186.272}$$

Terminal price of the share =

$$\frac{\text{Rs.1,186.272}}{(1.09)^5} = \text{Rs.770.995}$$

PV of terminal price =

Price of the share = Rs.30.646 + Rs.770.995 = Rs.801.64

P/E = Rs.801.64/Rs.12 = 66.80.

Hence (e) is the answer.

58. B Earnings price ratio approach assumes that the EPS is constant. There are two parameters, which have to be analyzed to see if this approach will provide an accurate result or not. They are dividend pay-out ratio and the rate of return the firm is capable of earning on the retained earnings. The results are accurate in the following two scenarios.
- When all the earnings are paid out as dividends. Here the rate of return the firm is capable of earning becomes irrelevant. Or,
  - The dividend pay-out ratio is less than 100 percent and retained earnings are expected to earn a rate of return equal to the cost of equity.

In all other cases, there is scope for this approach for not giving an accurate estimate. Hence, statement (II) is true, (I) and (III) are incorrect and the answer is (b).

59. D

Current market value of the firm = Rs.(49×85 + 222.60) million

= Rs.4,387.60 million

Number of shares repurchased = 850/85 = 10 million

Remaining no.of shares = (49 – 10) million = 39 million

Market value after restructuring = Rs.(39 × 100 + (222.6+850)) million

= Rs.4,972.6 million

∴ Value lost if the firm doesn't go for restructuring = Rs.(4,972.60 – 4387.60) million = Rs.585 million

60. C In cumulative preference shares, the dividends are to be paid on cumulative basis, including the situations where the dividends are unpaid in any financial year due to lack of profits. The things stated in the other options are not correct in relation to the cumulative preference shares. ≤
61. C Capitalization rate for the company, ≤
- $$k_0 = k_d \frac{B}{B+S} + k_e \frac{S}{B+S}$$
- where the notations are in their standard use
- $$k_0 = 14 \times \frac{80}{80+120} + 16 \times \frac{120}{80+120} = 15.2\%$$
- $$\text{Further, } k_0 = \frac{\text{Net operating income}}{\text{Market value of firm}} = 0.152$$
- Net operating income = 0.152 × 200 = Rs.30.4 lakh.
62. A In the presence of flotation costs, the cost of external equity will always be more than the cost of existing equity capital (a). It has no logical connection with cost of long-term or short-term debt. Hence (b), (c), (d) and (e) are incorrect. ≤
63. D Existing cost of capital ≤
- $$K_o = w_e k_e + w_d k_d$$
- $$K_o = 0.5 \times 16 + 0.5 \times 12 = 14\%$$
- It debt to equity ratio changes to 0:1, it becomes all equity firm, hence,  $k_o = k_e = 16\%$   
Therefore, increase in cost of capital = 16 – 14 = 2%.
64. C The weights based on the book values are historical in nature and hence these do not reflect the cost of capital owing to the changes in the business and financial risk of the company. The reasons mentioned in the other options do not correctly reflect the advantages of choosing the weights based on the book values in comparison to the market values. ≤
65. B The amount of borrowed capital = Rs. 10,00,000(1-0.4) = Rs.6,00,000 ≤
- $$\text{Tax advantage associated with debt capital} = \left[ 1 - \frac{(1-t_c)(1-t_{ps})}{(1-t_{pd})} \right] \times B$$
- $$= \left[ 1 - \frac{(1-0.4)(1-0.20)}{(1-0.25)} \right] \times 6,00,000 = \text{Rs. } 2,16,000.$$
66. B As per Walter Model ≤
- $$P_0 = \frac{D + (E - D)r / k}{k}$$
- Where, the notations are in their standard use.  
As the given return on investment ( $r$ ) > cost of equity ( $k$ ) the company will maximize the value of share, if no dividends are paid.

67. C The market price per share is given by ≤
- $$P_0 = \frac{P_1 + D_1}{1 + k_e}$$
- Where, symbols are in standard use.  
If no dividends are declared
- $$150 = \frac{P_1 + 0}{1.12}$$
- $$P_1 = \text{Rs.}168$$
- Net Income = Rs.2 crore  
Investments budget = Rs.4 crore  
Amount to be raised by issue of new shares = Rs.2 crore
- $$\therefore \text{Number of shares to be issued} = \frac{2,00,00,000}{168} = 1,19,048.$$
68. E Only Gordon's model assumed that the cost of capital is greater than the growth rate. ≤  
Other than that all the assumptions are same.  
Hence, option (e) is the correct answer.
69. C Rs.1.50 is added to retained earnings and thus the book value will increase by the same ≤  
amount. So the correct answer is (c).
70. D According to Walter's model on dividend policy ≤
- $$P = \frac{D}{k_e} + \frac{r(E - D)/k_e}{k_e}$$
- $$70 = \frac{D}{0.16} + \frac{(0.14)(12 - D)/0.16}{0.16}$$
- $$\text{or } 70(0.16) = D + \left(\frac{0.14}{0.16}\right)(12 - D)$$
- $$\text{or } 11.2 = D + 0.875(12) - 0.875D$$
- $$\text{or } 0.125D = 0.70$$
- $$\text{or } D = \frac{0.70}{0.125} = \text{Rs.}5.60$$
- $$\therefore \text{Dividend payout ratio should be} = \frac{D}{\text{EPS}} = \frac{5.60}{12} = 0.47 \text{ i.e., } 47\%.$$

71. B Cost of preference capital can be calculated from the following: ≤

$$P_o = \sum_{t=1}^n \frac{D_t}{(1+k_p)^t} + \frac{P_n}{(1+k_p)^n}$$

where symbols are in their standard use.

Substituting the values, we get

$$95 = 12 \times \text{PVIFA}(k_p, 15) + 110 \times \text{PVIF}(k_p, 15)$$

$$\text{At } k_p = 13\%$$

$$\text{RHS} = 12 \times 6.462 + 110 \times 0.160 = 95.144$$

$$\text{AT } k_p = 14\%$$

$$\text{RHS} = 12 \times 6.142 + 110 \times 0.140 = 89.10$$

Interpolating, we get

$$k_p = 13\% + \left( \frac{95.144 - 95.00}{95.144 - 89.10} \right) \times 1\% \\ = 13.02\%.$$

72. B Cost of equity =  $\frac{\text{EPS}}{\text{MVPS}}$  ≤

Substituting the given values, we get

$$k_e = \frac{3.60}{33} = 10.9\%$$

According to Dividend Discount Model

$$P_o = \frac{D_1}{k_e - g} \Rightarrow k_e = \frac{D_1}{P_o} + g$$

$$\therefore 0.109 = \frac{3(1+g)}{33} + g \Rightarrow 3.597 = 3 + 36g$$

$$\therefore g = \frac{0.597}{36} = 0.0165 = 1.65\%$$

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