

**Question Paper**  
**Financial Management – I (MB2E1-02): October 2010**

- Answer all 68 questions.
- Marks are indicated against each question.

**Total Marks : 100**

1. Which of the following statements is **not true** with respect to the Walter's model of dividend policy?
  - (a) The stock value usually is affected by the payment of dividends
  - (b) When the return on investment is greater than the cost of equity capital, a zero percent payout ratio would maximize the value of the firm
  - (c) When the return on investment is less than the cost of equity capital, a 100% payout ratio would maximize the value of the firm
  - (d) When the return on investment is equal to the cost of equity capital, there is no effect of payout ratio on the value of the firm
  - (e) When the return on investment is equal to the cost of equity capital, the stock value of a firm is affected by only the payment of dividend. (1 mark)
  
2. Mr. Raju borrowed Rs.1,00,000 at an interest rate of 12% p.a. The amount has to be repaid with interest in ten equal annual installments. If each installment is payable at the end of every year, the amount of each installment will be approximately
  - (a) Rs.16,273
  - (b) Rs.17,698
  - (c) Rs.18,750
  - (d) Rs.19,375
  - (e) Rs.20,625. (2 marks)
  
3. Which of the following is **not** a function of the finance manager?
  - (a) Mobilization of funds
  - (b) Deployment of funds
  - (c) Control over the use of funds
  - (d) Risk-return trade off
  - (e) Optimum utilization of stores. (1 mark)
  
4. Mr. Raman has invested in the shares of Topaz Ltd. The capitalization rate of the company is 15% and the current dividend is Rs.2.00 per share. If the company's dividends are sinking at an annual rate of 5%, the value of the company's share will be
  - (a) Rs. 7.35
  - (b) Rs. 8.55
  - (c) Rs. 9.50
  - (d) Rs.10.05
  - (e) Rs.10.50. (2 marks)
  
5. If an amount of Rs.50 crore is borrowed in the call money market, then the interest rate is decided by
  - (a) The lender
  - (b) The borrower
  - (c) The Reserve Bank of India as the amount involved is huge
  - (d) Negotiation between lender and borrower
  - (e) Both lender and borrower but within the maximum limit prescribed by RBI. (1 mark)
  
6. Floatation cost is associated with
  - (a) Cost of existing preference capital
  - (b) Cost of term loan
  - (c) Cost of existing debenture capital
  - (d) Cost of external equity
  - (e) Cost of retained earnings. (1 mark)

7. If the beta of a stock is 1.2 and the standard deviation of returns on the market is 11.25%, the covariance of returns of the stock and market will be approximately

- (a)  $322.125\%^2$
- (b)  $250.026\%^2$
- (c)  $162.003\%^2$
- (d)  $151.875\%^2$
- (e)  $99.397\%^2$

(2 marks)

8. The following information is collected from the annual report of Wilson Ltd.:

Net profit	Rs. 6 crore
Dividend pay out ratio	40 percent
Number of outstanding shares	60,00,000
Equity capitalization rate	12 percent
Rate of return on investment	16 percent

According to Walter's model on dividend policy, market price per share will be

- (a) Rs. 40
- (b) Rs. 60
- (c) Rs. 80
- (d) Rs.100
- (e) Rs.120.

(3 marks)

9. Which of the following orders is limited by a fixed price?

- (a) Limited Discretionary Order
- (b) Cancel Order
- (c) Limit Order
- (d) Stop Loss Order
- (e) Open Order.

(1 mark)

10. Which of the following statements is not true with respect to warrants?

- (a) A warrant entitles the holder to buy a fixed number of shares at a predetermined price during some specified period of time
- (b) Detachable warrants can be traded as independent securities
- (c) The premium associated with a warrant increases as the expiry date approaches
- (d) Warrant holders have no voting rights
- (e) When a warrant is issued, the exercise price is always greater than the current market price.

(1 mark)

11. In which of the following markets, are the outstanding long-term financial instruments traded?

- (a) Money market
- (b) Forex market
- (c) Primary capital market
- (d) Secondary capital market
- (e) Bill market.

(1 mark)

12. Consider the following information pertaining to Emerald Ltd.:

Net worth	Rs.25,00,000
12% debentures	Rs.10,00,000
9% Preference shares	Rs. 8,00,000
Operating profit	Rs.20,00,000
Debt/equity	3/1
Tax rate	40%

The degree of financial leverage for the company is

- (a) 1.06
- (b) 1.14
- (c) 1.22
- (d) 1.28
- (e) 1.34.

(2 marks)

13. Consider the following information regarding Glory Ltd.:

Net operating income	Rs.75 lakh
Overall capitalization rate	15%
Interest on debt	Rs.7 lakh
Equity capitalization rate	17%

According to the net operating income approach, the debt-equity ratio of Glory Ltd. is

- (a) 0.20
- (b) 0.25
- (c) 0.60
- (d) 1.22
- (e) 4.00.

(3 marks)

14. The cost of which of the following sources of finance can be found out by the bond yield plus risk premium approach?

- (a) Bonds
- (b) Term loan
- (c) Trade credit
- (d) Preference capital
- (e) Equity capital.

(1 mark)

15. Ms. Swati purchased a debenture of face value Rs.1,100 for Rs.1,080. The coupon rate on this is 8%. After a year, she sold the debenture for Rs.1,150. Then the holding period return to Swati is

- (a) 14.63%
- (b) 14.96%
- (c) 15.22%
- (d) 15.85%
- (e) 15.96%.

(2 marks)

16. If the effective rate of interest is 10.25% per annum and the nominal rate of interest is compounded twice a year, the nominal rate of interest per annum will be

- (a) 9.00%
- (b) 10.00%
- (c) 10.50%
- (d) 11.00%
- (e) 12.00%.

(2 marks)

17. The objective of financial management is to increase the wealth of the shareholders which means to

- (a) Increase the physical assets owned by the firm
- (b) Increase the market value of the shares of the firm
- (c) Increase the current assets of the firm
- (d) Increase the cash balance of the company
- (e) Increase the total number of outstanding shares of the company.

(1 mark)

18. If a bond is trading at a discount, the coupon rate

- (a) Must be less than the YTM
- (b) Must be more than the YTM
- (c) Must be equal to the YTM
- (d) Must have gone down since the issuance of the bond
- (e) Must be less than the inflation rate.

(1 mark)

19. Flex Ltd., issued bonds with face value Rs.500 each with the coupon rate of 12%. If the current market price of each bond is Rs.600, the current yield of the bond will be approximately

- (a) 9.50%
- (b) 10.00%
- (c) 10.34%
- (d) 11.25%
- (e) 12.45%.

(2 marks)

20. The current price of a share of Suman Ltd., is Rs.80. The company is planning to issue 2 right shares for every 5 equity shares. If the company targets that the ex-rights value of a share shall not fall below Rs.75, the subscription price for one right share should be

- (a) Rs.58.0
- (b) Rs.62.5
- (c) Rs.65.0
- (d) Rs.68.5
- (e) Rs.75.0.

(2 marks)

21. Which of the following is **not** an assumption in Gordon's dividend capitalization model?

- (a) The firm is an all-equity firm
- (b) The cost of equity capital is less than the growth rate
- (c) The cost of equity capital is constant
- (d) The return on investment is constant
- (e) The firm has an infinite life.

(1 mark)

22. The least expensive form of financing for the firm is

- (a) Existing common stock
- (b) Preferred stock
- (c) Debenture capital
- (d) New common stock
- (e) Retained earnings.

(1 mark)

23. Consider the following data pertaining to the market and stock 'X':

Risk-free rate of return	8% p.a.
Market returns	16% p.a.
Beta of stock X	1.25

If the risk free rate of return increases to 10% p.a. and the slope of the SML remains constant, the existing and the new required rate of return will be

- (a) 16.3%; 17.3%
- (b) 18.0%; 20.0%
- (c) 15.2%; 19.5%
- (d) 15.2%; 17.2%
- (e) 19.2%; 22.2%.

(2 marks)

24. Consider the following data of KSN Ltd., and GSN Ltd.:

Particulars	KSN Ltd. (Rs.)	GSN Ltd. (Rs.)
Net operating income	5,00,000	5,00,000
Interest on debt @ 8%	-	2,40,000
Corporate tax rate	50%	50%

As per the MM Hypothesis of capital structure theories, the value of levered firm exceeds the unlevered firm by

- (a) Rs.15,00,000
- (b) Rs.20,00,000
- (c) Rs.24,00,000
- (d) Rs.25,00,000
- (e) Rs.30,00,000.

(2 marks)

25. Mr. Khan is considering investing in a bond with a face value of Rs.10,000, and 8% coupon rate and the bond has four years to maturity. The next annual interest payment is due one year from today. The approximate discount factor for investment of similar risk is 10%. The intrinsic value of the bond is approximately

- (a) Rs.7,247
- (b) Rs.8,398
- (c) Rs.8,785
- (d) Rs.9,091
- (e) Rs.9,366.

(2 marks)

26. Mr. Anil has deposited Rs.25,000 in a nationalized bank. The bank has paid him Rs.50,000 after 5 years. The rate of return earned by Mr. Anil is
- 11.39%
  - 12.28%
  - 13.89%
  - 14.87%
  - 15.61%.
- (2 marks)
27. Which of the following implies the significant advantage of a public limited company over a proprietorship firm?
- Limited liability
  - Difficulty of transfer of ownership interest
  - Limited life
  - Inability to mobilize a lot of funds
  - Fewer government regulations.
- (1 mark)
28. If degree of operating leverage is 1.5 and degree of total leverage is 3.5, degree of financial leverage is
- 1.75
  - 2.00
  - 2.33
  - 5.00
  - 5.25.
- (1 mark)
29. In which of the following types of issues are new securities offered to the existing shareholders of the company on a pro-rata basis resulting in an increase in the net worth of the company?
- Public issue
  - Rights issue
  - Bonus issue
  - Private placement
  - Bought-out deal.
- (1 mark)
30. The management of Panna Fabrics subscribes to the NOI approach and believes that its cost of debt and overall cost of capital will remain at 9% and 12% respectively. If the ratio of the market value of equity to debt is 0.8, assuming no taxes, the rate of return is earned by equity shareholders will be
- 13.0%
  - 13.5%
  - 13.8%
  - 14.0%
  - 14.4%.
- (2 marks)
31. While calculating the weighted average cost of capital,
- Retained earnings are excluded
  - Debentures are given more weights
  - Cost of issues are included
  - Weights are based on market value or on book value
  - Equity shares are given more weights.
- (1 mark)
32. Consider the following information pertaining to Samay Ltd.:

Cost of equity capital	14%
Earnings per share	Rs.18
Dividend pay-out ratio	40%
Retention ratio	60%
Return on investment	15%

According to Gordon's dividend capitalization model, the stock value of Samay Ltd., is

- Rs. 54
  - Rs.100
  - Rs.121
  - Rs.144
  - Rs.168.
- (2 marks)

33. Which of the following companies provides risk capital to support the technocrats in setting up projects and businesses which involve high risk?
- Lease Finance companies
  - Hire Purchase Finance Companies
  - Factoring Companies
  - Mutual Benefit Fund Companies
  - Venture Capital Funding Companies.
- (1 mark)
34. Which of the following statements is **true** regarding the weighted average cost of capital based on the market values?
- The weights based on the book values are difficult to estimate, while calculating the weighted average cost of capital
  - Weights based on the market values are fairly constant in nature
  - Weights based on the book values have a high degree of volatility
  - The weights based on the book values are historical in nature and may not reflect the true economic value
  - The book values of the different sources of finance are approximately related to their present economic values.
- (1 mark)
35. Which of the following risks is the result of the variability of returns due to fluctuations in the securities market?
- Business risk
  - Financial risk
  - Liquidity risk
  - Systematic risk
  - Inflation risk.
- (1 mark)
36. The face value of a T-Bill is Rs.100. The purchase price of Mr. Arun is Rs.96. On maturity, if the yield earned on the bill is 8.35% p.a., the maturity period of the bill is (Assume 365 days a year)
- 14 days
  - 28 days
  - 91 days
  - 182 days
  - 364 days.
- (2 marks)
37. If a borrower promises to repay Rs.21,274 at the end of eight years from now in return for a loan of Rs.2,000 at the end of every year for a period of 8 years, the effective annual interest rate on this loan is
- 8%
  - 10%
  - 12%
  - 13%
  - 14%.
- (2 marks)
38. Other things remaining the same, which of the following will increase the quantity produced at the operating break-even point?
- Decrease in the selling price per unit.
  - Increase in the variable cost per unit.
  - Decrease in the fixed costs of the firm.
- Only (I) above
  - Only (II) above
  - Only (III) above
  - Both (I) and (II) above
  - Both (II) and (III) above.
- (1 mark)

39. Consider the following data pertaining to a deep discount bond:

Face value and maturity value	Rs.1,00,000
Time period of redemption	20 years
Issue price of the bond	Rs.10,500

Yield to maturity is approximately

- (a) 11.90%
- (b) 12.85%
- (c) 10.90%
- (d) 9.50%
- (e) 8.95%

(2 marks)

40. You are considering investing in a zero- coupon bond that sells for Rs.250. It will be redeemed for Rs.1,000 after 16 years. The approximate annual growth rate according to the rule of 72 will be

- (a) 8%
- (b) 9%
- (c) 10%
- (d) 12%
- (e) 25%

(2 marks)

41. A firm has a debt of Rs.80,000. The personal tax on debt income and equity are 35% and 30% respectively and its corporate tax is 40%. The tax shield associated with the debt is

- (a) Rs.28,308
- (b) Rs.50,000
- (c) Rs.64,429
- (d) Rs.76,740
- (e) Rs.88,503.

(2 marks)

42. Dividend pay out ratio is the ratio between

- (a) Dividend paid and the number of equity shares
- (b) Dividend per share and earning per share
- (c) Profit after tax and dividend paid
- (d) Equity earnings and earning before interest and taxes
- (e) Earning per share and dividend per share.

(1 mark)

43. The degree of financial leverage is a measure of relationship between the

- (a) EPS and EBIT
- (b) EPS and sales
- (c) EBIT and sales
- (d) EPS and taxes
- (e) EBIT and dividend payment.

(1 mark)

44.. A person who simultaneously buys and sells similar instruments in different markets to make riskless profit is known as

- (a) Hedger
- (b) Speculator
- (c) Arbitrageur
- (d) Broker
- (e) Trader.

(1 mark)

45. Consider the following probability distribution of rates of return of a stock:

Return (%)	12	16	18	22
Probability	0.30	0.10	0.40	0.20

The expected rate of return from the stock is

- (a) 12.0%
- (b) 14.2%
- (c) 15.0%
- (d) 16.8%
- (e) 20.0%.

(2 marks)

46. The financial leverage of a firm is an indicator of
- Systematic risk of the shares of the firm
  - Profitability of the firm
  - Yield on the debt securities of the firm
  - Financial risk of the firm
  - Business risk of the firm.
- (1 mark)
47. Which of the following **does not** act as a tool for RBI to maintain liquidity of the banking system?
- Prime Lending Rate
  - Statutory Liquidity Ratio
  - Cash Reserve Ratio
  - Bank Rate
  - Open Market Operations.
- (1 mark)
48. If the return on a security lies below the security market line,
- The security is defensive
  - The security is aggressive
  - Expected return is less than the risk free rate of return
  - The security is over priced
  - The security is under priced.
- (1 mark)
49. Which of the following is sterling denominated foreign bond raised in the United Kingdom domestic securities market?
- Samurai Bonds
  - Yankee Bonds
  - Bulldog Bonds
  - Shibosai Bonds
  - Matador Bonds.
- (1 mark)
50. A portfolio consists of investment in Sahana Services, which is expected to give a handsome return of 18 percent and Supreme & Co., which is expected to return 10 percent. 75% of the funds are invested in Sahana and the rest in Supreme. The expected return on the portfolio is
- 12%
  - 15%
  - 16%
  - 10%
  - 8%.
- (2 marks)
51. Which of the following statements is/are **true** with respect to the bond value theorems?
- Bond's price moves inversely proportional to its yield to maturity.
  - Whenever the required rate of return is equal to the coupon rate, the value of the bond is equal to its par value.
  - For equal sized increases and decreases in the YTM, price movements are not symmetrical.
- Only (II) above
  - Both (I) and (II) above
  - Both (I) and (III) above
  - Both (II) and (III) above
  - All (I), (II) and (III) above.
- (1 mark)
52. Suja's father has promised to give her Rs.10,000 at the end of each year for the next three years. Suja decided to deposit that money in a bank which pays interest 9 percent p.a. compounded semi-annually. If she does so, the money Suja will have at the end of three years is
- Rs.32,845
  - Rs.38,624
  - Rs.40,385
  - Rs.43,179
  - Rs.45,438.
- (2 marks)



53. Consider the following information pertaining to Flexible Fiber Ltd.:

Quantity produced	10,000 units
Variable cost per unit	Rs.3,800
Selling price per unit	Rs.6,800
Fixed cost	Rs.60 lakh

The Degree of Operating Leverage (DOL) will be approximately

- (a) 1.25
- (b) 1.85
- (c) 1.96
- (d) 2.85
- (e) 3.00.

(2 marks)

54. The share of Kushi Ltd., is expected to declare a dividend of Rs.4.00 next year and reach a price of Rs.56 each after one year. If an investor wants to buy the shares now and the required rate of return is 12%, the price at which the share would be bought is approximately

- (a) Rs.43.33
- (b) Rs.50.68
- (c) Rs.51.27
- (d) Rs.53.57
- (e) Rs.55.68.

(2 marks)

55. Which of the following statements is/are true with respect to bought-out deals?

- I. It involves direct selling of securities to sponsors who in turn off loads the share at the appropriate time.
- II. The issue price usually reflects the intrinsic value of a company's share.
- III. It involves selling of additionally issued equity shares to existing shareholders on a pro-rata basis.

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

(1 mark)

56. According to the CAPM, the risk premium for an individual security is equal to the

- (a) Beta times the market return
- (b) Security's covariance divided by the variance of the market
- (c) Weighted average of the individual security betas in a portfolio
- (d) Difference between the required return and the risk free rate multiplied by beta of the particular security
- (e) Beta times the risk free return.

(1 mark)

57. Which of the following euro instruments is a short term unsecured promissory note under which a fixed amount is repaid on a certain future date?

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

(1 mark)

58. Spectra Ltd., issued non-convertible debentures worth Rs.18 million redeemable after 12 years at a premium of 3.0%. The face value of the debentures is Rs.100, at a coupon rate of 12.4%. If the net amount realized is Rs.93 and the applicable tax rate is 40%, then the cost of debenture capital is

- (a) 0.82%
- (b) 0.84%
- (c) 7.60%
- (d) 8.44%
- (e) 8.62%.

(2 marks)

59. Which of the following is/are **true** regarding the comparison of actual P/E with its E (P /E)?

- I. If the E (P /E) is less than the actual P/E, the stock is currently under priced and it is the time to buy.
- II. If the E (P /E) exceeds the actual P/E, the stock is currently over priced and it is the time to sell.
- III. If the E (P /E) equals the actual P/E, the stock is correctly priced – neither buy nor sell.

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

(1 mark)

60. Which of the following is **not** a feature of Certificate of Deposit (CD) issued by a bank?

- (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)

61. Which of the following statements is **not true**?

- (a) The inverse of PVIFA factor is called the capital recovery factor
- (b) The present value of interest factor for annuity is equal to the product of the future value interest factor for annuity and the present value interest factor
- (c) The inverse of PVIF factor is FVIF factor
- (d) The sinking fund factor is used to determine the amount that must be deposited periodically to accumulate a specified sum at the end of a given period at a given rate of interest
- (e) The product of PVIFA and the sinking fund factor is the PVIF factor.

(1 mark)

62. According to which of the following capital structure theories does the cost of debt remains more or less constant up to a certain degree of leverage but rises thereafter at an increasing rate?

- (a) Net income approach
- (b) Net operating income approach
- (c) Traditional approach
- (d) Modigliani and Miller approach
- (e) Merton Miller approach.

(1 mark)

63. The transactions in the money market do **not** include the trading of

- (a) Commercial paper
- (b) Preference shares
- (c) Treasury bills
- (d) Certificates of deposit
- (e) Call money.

(1 mark)

64. Which of the following is an example of diversifiable risk?

- (a) Inadequate supply of raw materials
- (b) Changes in the tax structure
- (c) Reduction in the purchasing power of money
- (d) Recession in the economy
- (e) Introduction of a restrictive credit policy by RBI.

(1 mark)

65. Mr. Avinash is considering two options for investing Rs.50,000 for 5 years.

**Option I:** He will get an assured return of Rs.58,000 plus percentage gain on the sensdex at the end of 5<sup>th</sup> year over today's closing index, which is expected to be 30% .

**Option II:** It assures him an interest rate of 12% p.a. compounded annually.

The amount that Mr. Avinash is entitled to receive at the end of 5<sup>th</sup> year if he is considering the two options independently will be respectively

- (a) Rs.58,000; Rs.69,250
- (b) Rs.78,000; Rs.76,550
- (c) Rs.73,000; Rs.88,100
- (d) Rs.71,000; Rs.90,250
- (e) Rs.75,000; Rs.92,250.

(3 marks)

66. Which of the following is a feature of preference shares?
- (a) Preference-dividend is tax deductible
  - (b) Preference share holders shall invariably participate in the surplus
  - (c) Voting rights can be given to the preference shareholders in the case of cumulative preference shares
  - (d) Perpetual preference share capital will remain with the company forever
  - (e) Preference shares are always redeemable. (1 mark)
67. A firm can raise capital from the primary market by issuing securities. Which of the following is not one of the ways a firm can raise capital from the primary market?
- (a) Public issue
  - (b) Rights issue
  - (c) Private placements
  - (d) Deferred credit
  - (e) Euro-Issues. (1 mark)
68. A convertible debenture of Rs.500 par value is selling at Rs.520. If the conversion ratio is 20, the conversion price will be
- (a) Rs. 19.23
  - (b) Rs. 20.18
  - (c) Rs. 25.00
  - (d) Rs. 26.00
  - (e) Rs. 27.50. (2 marks)

**END OF QUESTION PAPER**

## Suggested Answers

### Financial Management - I (MB2E1-02); October 2010

- | Answer | Reason  |
|--------|---|
| 1. E   | <p>a. According to Walter's dividend model, dividends are relevant and they affect the share price of a firm. The model studies the relationship between the internal rate of return and the cost of capital of the firm to give a dividend policy that maximizes the shareholders' wealth. Statement (a) is true.</p> <p>b. According to the model, when the return on investment is greater than the cost of equity capital, a zero percent payout ratio would maximize the value of the firm. Statement (b) is true.</p> <p>c. When the return on investment is less than the cost of equity capital, a 100% payout ratio would maximize the value of the firm. Statement (c) is true.</p> <p>d. &amp; e. When the return on investment is equal to the cost of equity capital, the firms' dividend policy will not affect the value of the firm. Statement (d) is true and Statement (e) is not true.</p> <p>Therefore (e) is the answer.</p> |
| 2. B   | <p>The amount of each installment will be</p> $= \frac{1,00,000}{PVIFA(12\%, 10 \text{ years})} = \frac{1,00,000}{5.6502} = 17,698.48 = 17,698(\text{approx})$  |
| 3. E   | <p>Functions of the finance manager are:</p> <ul style="list-style-type: none"> <li>• Mobilization of Funds.</li> <li>• Deployments of funds.</li> <li>• Control over the use of funds.</li> <li>• Risk-return trade-off.</li> <li>• Optimum utilization of stores is the function of a production manager.</li> </ul> <p>Hence (e) is the correct answer.</p>  |
| 4. C   | <p>Value of the stock (V) = <math>D_1 / (k - g)</math></p> $= [2.00 (1 - 0.05)] / [0.15 - (-0.05)] = 1.90 / 0.20 = \text{Rs.} 9.50.$  |
| 5. D   | <p>In the call money market day-to-day surplus funds of banks are traded. The call loans are of very short term in nature and any amount of money can be lent or borrowed at a convenient interest rate, which is acceptable to both the lender and the borrower and there is no maximum ceiling on the interest rate. Hence, in the given case, though the amount is huge, the interest is decided by the lender and the borrower and RBI has no role in the interest determination. The correct answer is (d).</p>  |
| 6. D   | <p>Cost of external equity comes into picture, when there are certain floatation costs involved in the process of raising equity from the market.</p>   |
| 7. D   | $\beta = \frac{\text{Cov}(i, m)}{\sigma_m^2} \text{ or } \text{Cov}(i, m) = \beta \cdot \sigma_m^2 = 1.2 (11.25)^2 = 151.875\%$   |

**Answer****Reason**

8. D Walter's model on dividend capitalization states that:

$$P = \frac{D}{K_e} + \frac{r(E-D)/K_e}{K_e}$$

Here, the earnings per share for the company = Rs.6,00,00,000/60,00,000 = Rs.10 and the amount of dividend paid per share = Rs.10 × 40 percent = Rs.4.00 per share.

Therefore, we have, E = Rs.10, D = Rs.4, r = 16 percent and  $K_e$  = 12 percent.

So, the market price per share, according to Walter's model is given as:

$$P = \frac{4}{0.12} + \frac{0.16(10-4)/0.12}{0.12} = 33.33 + 66.67 = \text{Rs.100}$$

Hence, the required market value of the share as per Walter's model will be = Rs.100.

9. C The orders can be classified into:

- Limit Orders: Order limited by a fixed price. It may or may not include brokerage.
- Best Rate Order: To execute the buy/sell order at the best possible price.
- Immediate or Cancel Order: Order shall get cancelled if not executed immediately at the quoted price.
- Limited Discretionary Order: To provide discretion to the broker to execute order at a price, which is almost, approximate to the price fixed by client.
- Stop Loss Order: A particular limit is given for sustenance of loss. If the price falls below that, the broker is authorized to sell immediately to stop further occurrence of losses.
- Open Order: When client does not fix any time or price limit for execution of order.

10. C A warrant is a call option to buy a stated number of shares. They are like calls to the extent that they entitle the holder to buy a fixed number of shares at a predetermined price during some specified period of time. Statement (a) is true.

Most warrants are detachable from the bond or preferred stock to which they were attached at the time of issue. If detached, warrants can be traded as independent securities. Statement (b) is true.

The premium associated with a warrant will shrink as the expiry date approaches. Statement (c) is not true.

Warrant holders have no rights unlike shareholders. Warrant holders neither receives dividend nor holds voting rights. Statement (d) is true.

When a warrant is issued, the exercise price is always greater than the current market price. Statement (e) is true.

Hence (c) is the answer.

11. D The long term financial instruments – equity shares, preference shares and debts - are traded in the secondary market that have been issued earlier. Primary capital market allows the corporate houses to raise the long term capital by issuing new securities. Money market and forex market deal with the short term debt instruments and the transactions related to the foreign exchange respectively.

12. B

	Rs.(lakh)
EBIT	20,00,000
(-) Interest (0.12 × 10,00,000)	1,20,000
EBT	18,80,000

$$\text{Degree of financial leverage} = \frac{\text{EBIT}}{\text{EBT} - \frac{D_p}{(1-T)}} = \frac{20,00,000}{18,80,000 - 1,20,000} = 1.14$$

**Answer**

**Reason**

13. B According to the net operating income approach:
- $$\text{Total market value of firm} = \frac{\text{Net operating income}}{\text{Overall capitalization rate}} = \frac{75}{0.15} = \text{Rs. 500 lakh}$$
- $$\text{Market value of equity} = \frac{\text{Equity income}}{\text{Equity capitalization rate}}$$
- $$= \frac{\text{Net operating income} - \text{Interest on debt}}{\text{Equity capitalization rate}} = \frac{75 - 7}{0.17} = \text{Rs. 400 lakh}$$
- $$\text{Market value of debt} = \text{Total market value of firm} - \text{Market value of equity}$$
- $$= 500 - 400 = \text{Rs. 100 lakh}$$
- $$\therefore \text{Debt equity ratio} = \frac{100}{400} = 0.25.$$
14. E The bond yield plus risk premium approach is used to find out the cost of equity capital. It is illogical to apply for finding out the cost of bonds because the basis of this approach is the yield or cost of the bond itself. The cost of preference capital is found out by discounting the preference dividends and redemption value, and the cost of term loan is found out by adjusting the nominal interest cost for tax. Generally there are no explicit costs associated with trade credit and there is no logical connection between the cost of trade credit and bond yields.
15. A Holding period return,  $k = \frac{I + (P_t - P_{t-1})}{P_{t-1}} = \frac{88 + (1150 - 1080)}{1080} = 14.63\%$
- Hence (a) is the correct answer.
16. B  $0.1025 = \left(1 + \frac{r}{2}\right)^2 - 1$
- or  $1.1025 = \left(1 + \frac{r}{2}\right)^2$
- $$\therefore 1 + \frac{r}{2} = \sqrt{1.1025} \quad \text{or} \quad r = (\sqrt{1.1025} - 1) \times 2 = 0.10 \text{ i.e. } 10\%.$$
17. B According to the objective of financial management to increase the wealth of the shareholders means to increase the market value of the shares issued by the firm. Increasing the physical assets or current assets of the company may not provide adequate returns to the shareholders, if it is done through incremental borrowing. Increasing cash balance imparts more liquidity to a company but decreases the returns on investments. Increase in the total number of outstanding shares of the company will not always result in the increase in the wealth of the share holders.
18. A If a bond is trading at a discount, the coupon rate must be less than the YTM.
19. B Current yield = Coupon amount ÷ Market price
- $$\text{Coupon Amount} = 500 \times 12\% = 60$$
- $$\therefore \text{Current yield} = 60 \div 600 = 10.0\%.$$
20. B Ex-rights value of a share =  $\frac{NP_0 + S}{N+1}$
- Where,
- N is number of existing shares required for a rights share.
- P<sub>0</sub> is the cum rights price per share
- S is the subscription price
- $$\therefore 75 = \frac{2.5 \times 80 + S}{2.5 + 1}$$
- $$S = \text{Rs. 62.5}.$$

**Answer****Reason**

21. B Gordon's dividend capitalization model has the following assumptions.
- a. The firm will be an all-equity firm with the new investment proposals being financed solely by the retained earnings.
  - b. Return on investment and cost of capital remain constant.
  - c. The firm has an infinite life.
  - d. The retention ratio remains constant and hence the growth rate is also constant.
  - e. Cost of equity capital is greater than the growth rate.
- Hence (b) is the correct answer.
22. C The debt capital is the cheapest source of financing but it should be used within reasonable limits.
23. B Required rate of return =  $R_f + \beta (R_m - R_f) = 8 + 1.25 \times (16 - 8) = 8 + 1.25 \times 8 = 18\%$ .  
New required rate of return =  $10 + 1.25 \times (16 - 8) = 10 + 1.25 \times 8 = 20\%$ .
24. A As per the MM Hypothesis, the value of levered firm exceeds the unlevered firm by the amount of tax shield.
- $$\text{Amount of debt} = \frac{2,40,000}{0.08} = \text{Rs.}30,00,000$$
- $$\text{Tax shield} = B(t)$$
- $$= 30,00,000 \times 0.50 = \text{Rs.}15,00,000.$$
25. E The intrinsic value of a bond is equal to the discounted value of the cash flows:
- $$V = \frac{800}{(1+10)^1} + \frac{800}{(1+10)^2} + \frac{800}{(1+10)^3} + \frac{10,800}{(1+10)^4}$$
- $$V = 727.27 + 661.16 + 601.05 + 7376.55$$
- $$V = \text{Rs.}9366.03 \approx \text{Rs.}9,366.$$
26. D The amount of Rs.25,000 cash outflow may be treated as a principal which the company deposits into an account that pays an unknown rate of interest but returns a compounded amount of Rs.50,000 after 5 years.
- $$\therefore FV = PV(1+r)^n$$
- $$50,000 = 25,000(1+r)^5$$
- $$2 = (1+r)^5$$
- $$r = 14.87\%$$
- Therefore the company earns a return of 14.87%.
27. A A public limited company is said to be in a significant advantage owing to its limited liability. If the company turned to an insolvent one, the members don't have any further liability to bail out whereas in a proprietorship firm, the liability of the owner is unlimited. However, for a public limited company, the ownership can be easily transferred and resources can be mobilized. Moreover it has unlimited life. The governmental regulations for a public limited company are more than applicable to a partnership firm. Hence (a) is a true statement. But for a proprietorship company, these advantages are not available to a proprietorship company.
28. C  $DTL = DOL \times DFL$   
Hence,  $3.5 = 1.5 \times DFL$   
And,  $DFL = \frac{3.5}{1.5} = 2.33.$
29. B Rights issue is the method of raising additional finance from existing members by offering securities (shares and debentures) to them on pro-rata basis. A company proposing to issue securities on rights basis should send a 'letter of offer' to the shareholders giving adequate disclosure as to how the additional amount received by the issue is used by the company.  
Hence (b) is the correct answer.

	Answer	Reason
30.	E	<p>As per the NOI approach,</p> $K_e = k_0 + (k_0 - k_d) (B/S)$ $k_0 = 12\%$ $k_d = 9\%$ <p><math>B/S = 0.8</math> substituting these values, we get,</p> $K_e = 12 + (12 - 9)(0.8) = 14.4\%$
31.	D	For calculating the weighted average cost of capital, present market value or the book value of the sources of finance is taken.
32.	D	<p>Gordon's dividend capitalization model:</p> $P = \frac{E(1-b)}{K_e - br} = \frac{18(1-0.60)}{0.14 - (0.6 \times 0.15)} = \text{Rs. } 144.$ <p>Hence (d) is the correct answer.</p>
33.	E	Venture capital funding companies generally provide risk capital to the technology oriented and highly risky businesses.
34.	D	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. The book values of the different sources of finances may not be related to their current economic values.
35.	D	<p>Systematic risk refers to the variability of returns due to fluctuations in the securities market.</p> <p>Business risk refers to the risk of doing business in a particular industry or environment.</p> <p>Financial risk arises when companies resort to leverage or the use of debt financing.</p> <p>Liquidity risk is associated with the secondary market in which the particular security is traded.</p> <p>Inflation risk arises when there is a reduction in the purchasing power.</p> <p>Hence (d) is the answer.</p>
36.	D	<p>The yield on a T-bill, <math>(k) = \frac{F-P}{P} \times \frac{365}{d}</math> where d is the maturity period and F is the face value and P is the price</p> $0.0835 = \frac{100-96}{96} \times \frac{365}{d}$ <p>Hence, <math>d = 182.10</math> days. i.e. approximately 182 days.</p>
37.	A	<p>The effective annual interest is the value of 'r' in the following:</p> $2000 \text{ FVIFA}_{(r,8)} = 21,274$ $\text{FVIFA}_{r,8} = 10.637$ <p>At <math>r = 8\%</math>, L. H. S. = 10.637</p> <p>Hence, <math>r = 8\%</math>.</p>



**Answer**

**Reason**

38. D The quantity produced at operating break-even point is computed as  $\frac{F}{(S - V)}$   
 where F represents the fixed costs of the firm  
 S represents the selling price per unit.  
 V is the variable cost per unit.  
 Other things remaining the same, increase in fixed costs will increase the quantity produced at operating break-even point.  
 Other things remaining the same, increase in the variable costs will decrease the denominator, hence it will increase the quantity produced at operating break-even point. Hence, II is correct and III is not correct.  
 Other things remaining the same, increase in the selling price per unit will increase the denominator, hence it will decrease the quantity produced at operating break-even point. Hence, I is correct and the answer is (d).
39. A  $10,500 = \frac{1,00,000}{(1+x)^{20}}$  or,  $x = 11.9\%$  (approx.)
40. B Rs. 250 doubles twice over a period of 16 years, the doubling period is  $16/2 = 8$  years. Applying the rule of 72 we get  
 Growth rate (interest rate) =  $72/8 = 9\%$ .
41. A The tax shield associated with debt =  $\left[ 1 - \frac{(1-t_c)(1-t_{ps})}{(1-t_{pd})} \right]$   
 Hence tax shield with debt =  $\left[ 1 - \frac{(1-0.4)(1-0.30)}{(1-0.35)} \right] \times \text{Rs.}80,000 = \text{Rs.}28,308$   
 Hence (a) is the correct answer.
42. B Dividend pay out ratio represents the percentage of earning per share paid off as dividend.
43. A Degree of financial leverage is a measure of relationship between EPS and EBIT. It measures the effect of change in the EBIT on the EPS of the company. Hence, (a) is the answer.
44. C A person who simultaneously buys and sells similar instruments in different markets is known as Arbitrageur whereas the person/investor who seeks to protect a position or anticipated position in the spot market by using an opposite position in derivative market is hedger. Speculators enter future or option market with a view to make profit from subsequent price movements. Hence (c) is the correct answer.
45. D Expected rate of return =  $\sum r_i p_i$   
 =  $(12 \times 0.30) + (16 \times 0.10) + (18 \times 0.40) + (22 \times 0.20) = 16.8\%$ .
46. D Financial leverage of a firm is an indicator of its financial risk. The systematic risk of the shares of a firm is indicated by beta. Profitability of the firm is indicated by the profitability ratios. Yield on the debt securities is indicated by yield to maturity. Business risk of a firm is indicated by operating leverage.
47. A Prime lending rate is the rate fixed by respective commercial banks as bench mark for lending interest rates. It is not a tool to control liquidity of the banking system by RBI. RBI controls liquidity of the banking system through SLR, CRR, Bank rate and open market operations.
48. D If the return on a security lies below the security market line, the security is over priced as the expected return is less than the required rate of return.  
 Hence, option d is correct.

	Answer	Reason
49.	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.
50.	C	Expected return = $0.75 \times 18 + 0.25 \times 10 = 16\%$ .
51.	E	Bond's price moves inversely proportional to its yield to maturity. When ever the required rate of return is equal to the coupon rate, the value of the bond is equal to its par value. For equal sized increases and decreases in the YTM, price movements are not symmetrical. Hence, all the statements are correct.
52.	A	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.
53.	A	$DOL = \frac{Q(P - V)}{Q(P - V) - F} = \frac{10000(6800 - 3800)}{10000(6800 - 3800) - 6000000} = 1.25$
54.	d	If an investor holds a share for one year, the price of such share today $P_o = \frac{D_1}{(1 + K_e)} + \frac{P_1}{(1 + K_e)}$ $P_o = \frac{4.00}{(1 + 0.12)} + \frac{56.00}{(1 + 0.12)} = 3.57 + 50 = 53.57$ ∴ Today the value of the share is Rs.53.57.
55.	B	It involves direct selling of securities to sponsors who in turn off loads the share at the appropriate time. Statement (I) is true. In a bought-out deal, the issue price usually reflects the intrinsic value of a company's share. Statement (II) is true. Right issue involves selling of additionally issued equity shares to existing shareholders on a prorata basis. Statement (III) is not true.
56.	D	The risk premium for an individual security is equal to the difference between the required return and the risk free rate multiplied by beta of the particular security.
57.	B	Note Issuance Facility (NIF) is a medium-term legally binding commitment under which a borrower can issue short-term paper, of up to one year. Commercial papers are short-term unsecured promissory notes, which pay a fixed amount. Straight debt bonds, medium term notes and floating rate notes are long-term/medium term instruments having a maturity of over one year. Hence (b) is the correct answer.
58.	D	$k_d = \frac{I(1 - T) + \frac{F - P}{n}}{\frac{F + P}{2}} = \frac{12.4(1 - 0.4) + \frac{103 - 93}{12}}{\frac{103 + 93}{2}} = \frac{7.44 + 0.83}{98} = \frac{8.27}{98} = 8.44\%$

	Answer	Reason
59.	C	<p>By the comparison of actual P/E with its E(P /E), the rules are:</p> <ul style="list-style-type: none"> <li>• If the E(P /E) exceeds the actual P/E, the stock is currently under priced and it's the time to buy.</li> <li>• If the E(P /E) is less than the actual P/E, the stock is currently over priced and it's the time to sell.</li> <li>• If the E(P /E) equals the actual P/E, the stock is correctly priced – neither buy nor sell.</li> </ul> <p>Hence, statements (I) and (II) are not true and (III) is true.</p>
60.	C	<p>The features of certificate of deposit issued by bank:</p> <ul style="list-style-type: none"> <li>• It is a document of title to a time deposit.</li> <li>• It is issued at a discounts to face value.</li> <li>• It is freely transferable by endorsement and delivery.</li> <li>• It attracts stamp duty and there is no grace period, as in the case of bill financing.</li> </ul>
61.	B	<p>Capital recovery factor is the inverse of PVIFA. Hence, (a) is correct. The present value of interest factor for annuity is the reciprocal of the product of the PVIFA and FVIF. Hence, (b) is not correct. The inverse of PVIF factor is the FVIF factor. Hence, (c) is correct. To determine the amount that must be deposited periodically to accumulate a specified sum at the end of a given period, sinking fund factor is used. Hence, (d) is correct. The product of PVIFA and the sinking fund factor is the PVIF factor. Hence, (e) is correct and the answer is (b)</p>
62.	C	<p>As per traditional approach on capital structure theory, up to a certain amount of leverage the cost of debt will decrease but there after as the default risk increases, cost of debt also increases. So (c) would be the correct answer.</p>
63.	B	<p>(a) Commercial paper is traded in the money market.  (b) Preference shares are long term financial instruments and are traded in the capital market.  (c) Treasury bills are traded in the money market.  (d) Certificates of deposit are traded in the money market.  (e) Call money is traded in the money market.</p>
64.	A	<p>Diversifiable risks are those risks that are specific to a company or industry and hence can be eliminated by diversification. When a company is not able to obtain adequate supply of raw materials, it becomes a source of diversifiable risk. Hence option (a) is the correct choice.</p> <p>Changes in tax structure, recession in the economy, the credit policy introduced by RBI and reduction in the purchasing power of the economy are examples of non-diversifiable risks. These risks are related to the general economy and cannot be eliminated by the process of diversification.</p>
65.	C	<p>At the end of the 5<sup>th</sup> year, the amount Mr. Ajay would get according to the two options is</p> <p><b>Option 1:</b>  Amount = Rs.58,000 + (Rs.50,000 × 0.30) = (58,000 + 15,000) = Rs.73,000.</p> <p><b>Option 2:</b>  Amount = 50,000 × FVIF<sub>(12%,5)</sub> = 50,000 × 1.762 = Rs.88,100.</p>
66.	D	<p>Preference shareholders have preference over equity shareholders on the post tax earnings of the firm. Preference dividends are not tax deductible. Voting rights can not be given to the cumulative preference shares. Preference shares (except participating preference shares) do not participate in the surplus. Preference shares can be redeemable or irredeemable. Perpetual preference share capital will remain with the company forever. Thus only option (d) is correct. Rest are incorrect.</p>

**Answer****Reason**

67. D A firm can raise capital from the primary market by issuing securities in
- Public issue.
  - Rights issue.
  - Private placements.
  - Euro-Issues.
- Where as, deferred credit is the facility offered by the supplier of machinery to the firm.
68. C  $\text{Conversion price} = \text{Face value} / \text{conversion ratio} = 500 / 20 = \text{Rs.25.00}.$

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