

Question Paper

Financial Management - I (141:01-October 04)

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

1. Which of the following is a part of the control function of the finance manager? [< Answer >](#)
- (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 performance of individual departments within the organization
 - (d) Appraisal of investment proposals given by various departments
 - (e) Deciding on the manner of deployment of funds in various assets.
- (1 mark)
2. Which of the following statements is **false**? [< Answer >](#)
- (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)
3. Which of the following regulations is **no** more relevant in today's business environment? [< Answer >](#)
- (a) Foreign Exchange Regulation Act, 1973
 - (b) Monopolies and Restrictive Trade Practices Act, 1969
 - (c) Companies Act, 1956
 - (d) Income Tax Act, 1961
 - (e) SEBI Act, 1992.
- (1 mark)
4. Which of the following players **cannot** act as a borrower in the call money market? [< Answer >](#)
- (a) Discount and Finance House of India
 - (b) SBI Mutual Fund
 - (c) State Bank of India
 - (d) Securities Trading Corporation of India
 - (e) Reserve Bank of India.
- (1 mark)
5. Which of the following is a disadvantage of bought-out-deal? [< Answer >](#)
- (a) It is more expensive than public issue
 - (b) It involves a time consuming procedure
 - (c) It is difficult to convince a wholesale investor
 - (d) Promoters are not assured of immediate funds
 - (e) Sponsor may misuse their power.
- (1 mark)
6. Which of the following companies generally provide risk capital to the technology oriented and highly risky businesses? [< Answer >](#)
- (a) Venture capital funding companies
 - (b) Lease finance companies
 - (c) Hire purchase finance companies
 - (d) Commercial banks

(e) Insurance companies.

(1 mark)

7. Which of the following is **not** a feature of certificate of deposit issued by a bank?

[< Answer >](#)

- (a) It is a document of title to a time deposit
- (b) There is no lock-in period for transferring it to others
- (c) It is not subject to the reserve requirements of the bank
- (d) It is transferable by endorsement and delivery
- (e) The maximum maturity period is one year.

(1 mark)

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

[< Answer >](#)

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

(1 mark)

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

[< Answer >](#)

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

(1 mark)

10. Which of the following are fixed-income securities having a maturity of over one year?

[< Answer >](#)

- (a) Commercial Papers
- (b) Medium-Term Notes
- (c) American Depositary Receipts
- (d) Treasury Bills
- (e) Certificate of Deposits.

(1 mark)

11. Which among the following categories of people try to obtain risk free profits by simultaneously buying and selling similar instruments in different markets?

[< Answer >](#)

- (a) Arbitrageurs (b) Speculators (c) Factors (d) Brokers (e) Authorized Dealers.

(1 mark)

12. M/s. PeeCee Ltd. has received the third highest credit rating for its issue of commercial paper. If its fund based working capital limit is Rs.3 crores, and assuming other requirements are met which of the following is true?

[< Answer >](#)

- (a) It can issue commercial paper within the maximum limit of Rs.3 crores
- (b) It can issue commercial paper but the amount should not be less than Rs.5 lakhs
- (c) It can issue commercial paper to any amount
- (d) It can issue commercial paper provided its fund based working capital limit is raised to Rs.4 crores
- (e) It cannot issue commercial paper.

(1 mark)

13. Which of the following is an objective method of sales forecasting?

[< Answer >](#)

- (a) Jury of executive opinion
- (b) Sales force estimate
- (c) Regression analysis
- (d) Ratio analysis
- (e) Both (a) and (b) above.

(1 mark)

14. Which of the following points can be considered as the starting point of financial forecasting? [< Answer >](#)
- (a) Forecasting material requirements (b) Forecasting man power requirements
(c) Forecasting financial requirements (d) Forecasting sales volume
(e) Forecasting assets requirements.
- (1 mark)
15. Which of the following functions is/are served by the primary capital market of an economy? [< Answer >](#)
- (a) It allows the corporate houses to raise the long term capital by issuing new securities
(b) It offers a market to trade for the outstanding long term securities
(c) It offers a market to trade for the outstanding short term securities
(d) It offers an excellent exit route for the venture capital funding companies
(e) Both (c) and (d) above.
- (1 mark)
16. The service of which of the following entities is generally **not** useful to the retail investors? [< Answer >](#)
- (a) Merchant Banks (b) Commercial Banks
(c) Hire purchase finance companies (d) Housing finance companies
(e) Nidhis.
- (1 mark)
17. Which of the following is **true**? [< 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)
18. Time value of money considers [< Answer >](#)
- (a) The preference of the individuals for future consumption to present consumption
(b) Increase in purchasing power of rupee with the passage of time
(c) The uncertainty of the future
(d) The productivity of money to earn real returns over time
(e) Both (c) and (d) above.
- (1 mark)
19. Which of the following is/are **true** regarding the capital recovery factor? [< Answer >](#)
- I. It is the inverse of the PVIF factor.
II. It represents the amount that has to be invested at the end of every year for a period of 'n' years at the rate of interest 'k' in order to accumulate Re.1 at the end of the period.
III. It can be applied to find out the amount to be invested periodically to liquidate a loan over a specified period at a given rate of interest.
- (a) Only (II) above (b) Only (III) above
(c) Both (II) and (III) above (d) Both (I) and (III) above
(e) Both (I) and (II) above.
- (1 mark)
20. 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 at the end of the period under consideration.
- II. The cash flow is assumed to occur at the start of the period under consideration.
- III. It is reciprocal of capital recovery factor.

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

(1 mark)

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

[< Answer >](#)

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

(1 mark)

22. If the beta of a stock is equal to zero, which of the following is/are **true** according to CAPM?

[< Answer >](#)

- I. Slope of SML is zero.
- II. Risk free rate of return is equal to the required rate of return of the given stock.
- 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)

23. Which of the following is a diversifiable risk for an investor who wants to invest in the shares of Sahana Arts Ltd., a film producing company in India?

[< Answer >](#)

- (a) Major change in the government policy on the entertainment industry
- (b) Possibility of a war threat from the neighboring country
- (c) The fiscal deficit exceeding well beyond the budgeted level
- (d) Possibility of low rainfall thereby leading to widespread drought across India
- (e) Both (b) and (c) above.

(1 mark)

24. According to CAPM a security's required rate of return is equal to

[< Answer >](#)

- (a) Return on government securities + a premium based on unsystematic risk
- (b) Return on corporate securities + a premium based on systematic risk
- (c) Return on individual securities + a premium equal to beta
- (d) Return on government securities + a premium based on market risk
- (e) Return on corporate securities – a premium based on systematic risk.

(1 mark)

25. Which of the following is **not** implied by the single period equity valuation model?

[< Answer >](#)

- (a) $k_e = \frac{D_1 + P_1}{P_0}$
- (b) $k_e = \frac{D_1 + P_1}{P_0} - 1$
- (c) $P_0 (1+k_e) - P_1 = D_1$
- (d) $P_0 (1+k_e) - D_1 = P_1$
- (e) Both (a) and (c) above.

(1 mark)

26. Which of the following represents the amount that can be realized by a company if it terminates its business and sells all its assets?

[< Answer >](#)

- (1 mark)**

< Answer >

- (1 mark)**

< Answer >

- (1 mark)**

< Answer >

- (1 mark)**

< Answer >

- (1 mark)**

< Answer >

- (1 mark)**

< Answer >

- (a) Decrease in accounts payable (b) Payment of dividends

(c) Increase in pre-paid expenses (d) Decrease in accrued taxes (e) Increase in cash.

(1 mark)

33. A system of financial statement analysis which highlights the inter-relationships in the contents of financial statements is called [< Answer >](#)

- (a) Du Pont analysis (b) Common size analysis (c) Time series analysis
(d) Index analysis (e) Both (b) and (c) above.

(1 mark)

34. Which of the following ratios indicates the efficiency of utilization of assets by a firm? [< Answer >](#)

- (a) Net profit margin (b) Debt-equity ratio
(c) Current ratio (d) Asset turnover ratio (e) Interest coverage ratio.

(1 mark)

35. In relation to the preparation of the proforma income statement by using budgeted expense method, [< Answer >](#)

- (a) The future relationship between various costs to sales is assumed to follow historical relationship
(b) The estimation of the various items are made on the basis of the expected developments
(c) An extrapolation using trend analysis is always made to assess the total expenses of the company
(d) A regression equation is always modeled to project the amount of future expenses
(e) Both (a) and (b) above.

(1 mark)

36. Which of the following is **not** a benefit of funds flow analysis to an organization? [< Answer >](#)

- (a) Detection of imbalances and appropriate action
(b) Divisional performance appraisal
(c) Evaluation of firm's financing
(d) Evaluation of the quality of the top management of the organization
(e) Planning for future financing.

(1 mark)

37. Which of the following is a source of funds in a funds flow statement on total resources basis? [< Answer >](#)

- (a) Preliminary expenses written off (b) Dividend payment
(c) Decrease in accrued expenses (d) Increase in plant and machinery
(e) Reduction in debenture capital.

(1 mark)

38. "Statement of Changes in Financial Position" is also known as [< Answer >](#)

- (a) Proforma Balance sheet (b) Proforma income statement
(c) Cash budget (d) Sales budget (e) Funds flow statement.

(1 mark)

39. Which of the following indicates the business risk of a company? [< Answer >](#)

- (a) Return on investment (b) Debt equity ratio
(c) Operating leverage (d) Financial leverage (e) Interest coverage ratio.

(1 mark)

40. If the degree of operating leverage is 3 and the degree of financial leverage is 2, it means that [< Answer >](#)

- (a) 1% change in EPS will be caused by 5% change in sales
- (b) 1% change in EBIT will result in 3% change in EPS
- (c) 1% change in sales will result in 3 percent change in EBIT and 6% change in EPS
- (d) 1% change in EPS will be caused by 6% change in EBIT
- (e) 1% change in sales will result in 2% change in EPS.

(1 mark)

41. If 91-day T-bills of face value Rs.100 are issued at a yield of 12%, then the issue price is [< Answer >](#)
- (a) Rs.96.10 (b) Rs.96.70 (c) Rs.97.10 (d) Rs.98.02 (e) Rs.99.97.

(1 mark)

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

(1 mark)

43. Mr. Naresh deposited Rs.2,000 at the beginning of every month in a bank for five years, if the interest rate is 12% p.a. compounded monthly, the accumulated amount he will get after 5 years is [< Answer >](#)
- (a) Rs. 89,910 (b) Rs.1,34,400 (c) Rs.1,63,340 (d) Rs.1,64,973 (e) Rs.1,92,000.

(1 mark)

44. If a borrower promises to pay Rs.40,000 nine years from now in return for a loan of Rs.23,680 today, what effective annual interest rate is being offered? (Round off your answer to the nearest integer). [< Answer >](#)
- (a) 2.00% (b) 5.00% (c) 6.00% (d) 7.00% (e) 8.00%.

(1 mark)

45. If the interest rate is 9% per annum, how much should Mr. Ashish invest today in a bank scheme that would fetch him an annuity of Rs.2,000 for a period of 6 years commencing from the beginning of fourth year? [< Answer >](#)
- (a) Rs. 6,352.18 (b) Rs. 6,926.38 (c) Rs.7,554.42 (d) Rs. 8,232.32 (e) Rs.10,655.50.

(3 marks)

46. The effective rate of interest under a particular scheme is 8.48%. If the frequency of compounding is three times in a year, the nominal rate of interest under the scheme is [< Answer >](#)
- (a) 6.78% (b) 7.35% (c) 8.74% (d) 8.25% (e) 9.35%.

(2 marks)

47. Asita borrowed an amount of Rs.41,000 from a bank to be repaid in five equal annual installments. If the rate of interest is 7% p.a. on the reducing balances, the amount of principal amortized in the first payment is [< Answer >](#)
- (a) Rs.2,870 (b) Rs.7,130 (c) Rs.10,000 (d) Rs.12,345 (e) Rs.13,130.

(2 marks)

48. If the beta of a stock is 1.63 and the standard deviation of the return on the market is 16.25%, then the covariance of returns of the stock and market is [< Answer >](#)

(a) $99.39\%^2$ (b) $162.00\%^2$ (c) $250.02\%^2$ (d) $430.42\%^2$ (e) $701.59\%^2$.

(1 mark)

49. Following is the probability distribution of rates of return of a stock: [< Answer >](#)

Return (%)	10	12	15	20
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%.

(1 mark)

50. The risk-free rate is 9% p.a., the return on market is 15% p.a. and the beta of stock B is 1.5. According to the CAPM, the risk premium of stock B is [< Answer >](#)

(a) 6.0% (b) 9.0% (c) 13.5% (d) 18.0% (e) 22.5%.

(1 mark)

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

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

(1 mark)

52. The probability distribution of returns of stock of M/s. ACRO Ltd. and the returns on market are given below: [< Answer >](#)

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

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

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

(3 marks)

53. The expected returns for the next one year from the shares of Eastern Sugars Ltd. (ESL) vis-à-vis the returns from the market portfolio under different situations are projected as follows: [< Answer >](#)

Probability	0.20	0.50	0.30
ESL Share (%)	12	16	22
Market Portfolio (%)	10	12	20

What should be the Beta coefficient for the equity shares of ESL?

- (a) 0.875 (b) 1.000 (c) 1.125 (d) 1.250 (e) 1.375.

(3 marks)

54. Beta Ltd. has recently paid a dividend of Rs.1.50 per share. If the required rate of return is 12% and the growth rate is 7%, then the intrinsic value of the shares of Beta Ltd. is approximately [< Answer >](#)

- (a) Rs.28 (b) Rs.30 (c) Rs.32 (d) Rs.34 (e) Rs.36.

(1 mark)

55. Consider the following information regarding the bond issued by XL Pharma Ltd: [< Answer >](#)

Face value of the bond Rs.1,000 Coupon per annum 10%
Issued at a discount of 10%

If the current yield of the bond is 8.33%, the bond is trading at a

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

(1 mark)

56. Mr. Vivek 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 rate of return earned on this debenture is 20%, the amount of coupon received on the debenture is [< Answer >](#)

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

(1 mark)

57. M/s. Paras Ltd. issued bonds having a par value of Rs.1000, maturity value of Rs.1,200 and a coupon rate of 17%. If the current market price of the bond is Rs.1,114 and the YTM of the bond by approximation method is 16.4%, the maturity period of the bond is approximately [< Answer >](#)

- (a) 6.0 years (b) 5.5 years (c) 5.0 years (d) 4.4 years (e) 3.0 years.

(2 marks)

58. M/s. ABC Ltd. is expected to realize Rs.25 crore by liquidating all the assets. The amount to be paid to creditors is Rs.10 crore. If there are 1.5 crore equity shares and the networth of the firm is Rs.18 crore, the liquidation value per share of M/s. ABC Ltd. is [< Answer >](#)

- (a) Rs. 6.67 (b) Rs.10.00 (c) Rs.12.00 (d) Rs.16.67 (e) Rs.23.33.

(1 mark)

59. Consider the following data regarding the bonds issued by Zeta Ltd. on October 15, 2002 to be redeemed on October 15, 2009: [< Answer >](#)

Face value of the bond	Rs.100
Issued at a discount of	10%
Redeemable at a premium of	10%
Interest payable semi-annually	8% p.a.
Current market price as on October 15, 2003	Rs.95

The yield to maturity of the bond to a prospective investor is

- (a) 9.27% (b) 10.80% (c) 12.24% (d) 12.66% (e) 13.55%.

(2 marks)

60. Chandra Textiles presently pays a dividend of Rs.3 per share. The dividend is expected to grow at the rate of 4% for the next four years then at 3% for next three years, after that if it expected to grow at a rate of 1% forever. If the required rate is 10% the value one can pay now if the holding period is (a) infinite and (b) 3 years respectively is [< Answer >](#)
- (a) Rs.55.58, Rs.55.58 (b) Rs.38.54, Rs.38.54 (c) Rs.46.75, Rs.46.75
(d) Rs.38.75, Rs.30.75 (e) Rs.38.75, Rs.46.75.

(2 marks)

61. Orient Ltd. has financed its assets by taking debt as high as 60% of the value of the assets. If the equity capital of the company is Rs.60 lakh, then the debt is [< Answer >](#)
- (a) Rs. 60 lakh (b) Rs. 90 lakh (c) Rs.120 lakh (d) Rs.125 lakh (e) Rs.150 lakh.

(1 mark)

62. The average collection period of a company is 40 days. If the receivables balance is Rs.20 lakh, the sales of the company amount to [< Answer >](#)
- (a) Rs.60 lakh (b) Rs.90 lakh (c) Rs.120 lakh (d) Rs.180 lakh (e) Rs.210 lakh.

(1 mark)

63. The equity capital and total debt of Super Industries Ltd. amount to Rs.150 lakh and Rs.300 lakh respectively. The earnings before interest and taxes of the company amount to Rs.90 lakh. The return on investment of the company is [< Answer >](#)
- (a) 10% (b) 12% (c) 15% (d) 20% (e) 30%.

(1 mark)

64. Given total debt-equity ratio = 5:4; total assets = Rs.4,500; short-term debt = Rs.600 and total debt consists only of long-term debt and short-term debt, the long-term debt is equal to [< Answer >](#)
- (a) Rs.1,567 (b) Rs.1,900 (c) Rs.2,167 (d) Rs.2,500 (e) Rs.2,833.

(1 mark)

65. Consider the following information regarding M/s. Z Ltd. for the year 2003-04: [< Answer >](#)

Earnings after tax	Rs.9,00,000
Interest payment	Rs.8,00,000
Assets turnover	1.50
Net profit margin	5%
Corporate tax rate	40%

Earning power of the company is

- (a) 7.5% (b) 8.5% (c) 14.2% (d) 19.2% (e) 25.4%.

(3 marks)

66. The total capital employed by M/s. Venus Ltd. is Rs.36,00,000. The firm has debt-equity ratio of 5:4. The ratio of owner's equity to fixed assets is 8:15. The amount of fixed assets in the company is [< Answer >](#)
- (a) Rs.30,00,000 (b) Rs.36,00,000 (c) Rs.40,00,000 (d) Rs.42,00,000 (e)

Rs.50,00,000.

(3 marks)

67. Presently the current assets and current liabilities of BSN Ltd. are Rs.10 lakh and Rs.5 lakh respectively. In the current year fixed assets worth Rs.2 lakh were purchased, new shares are issued for Rs.5 lakh, bills receivable worth Rs.10,000 were dishonored and Rs.10,000 cash is collected from customers. The current ratio will

[< Answer >](#)

- (a) Increase by 0.60 (b) Decrease by 0.60 (c) Increase by 0.2
(d) Increase by 0.75 (e) Have no change.

(1 mark)

68. Current liabilities are Rs.20,000 and current assets are Rs.30,000. If debtors realized amount to Rs.6,000, raw materials purchased on credit amount to Rs.3,000 and Rs.6,000 worth of preference shares are converted into equity, the impact on the net working capital (NWC) would be

[< Answer >](#)

- (a) Decrease of Rs.3,000 in NWC (b) Increase of Rs.3,000 in NWC
(c) No change in NWC (d) Increase of Rs.9,000 in NWC
(e) Decrease of Rs.9,000 in NWC.

(1 mark)

69. Consider the following data regarding M/s. Amar Labs Ltd. for the year 2003-2004:

[< Answer >](#)

(in Rs.

lakh)

Retained earnings	20
Interest earned on investments	6
Amortization of copy rights written off	5
Depreciation	4
Dividends	10
Preliminary expenses written off	5

Funds from operations of M/s. Amar Labs Ltd. during the year was

- (a) Rs.50 lakh (b) Rs.41 lakh (c) Rs.38 lakh (d) Rs.21 lakh (e) Rs.20 lakh.

(1 mark)

70. Consider the following data regarding M/s. Delta Ltd:

[< Answer >](#)

Total assets	Rs.56 lakh
Fixed operating costs	Rs.24 lakh
Variable cost to sales ratio	0.6
Total asset turnover ratio	2
Interest coverage ratio	3.2

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

- (a) If the sales increase by 1%, EPS will increase by 3.12%
(b) If the sales decrease by 1%, EBIT will decrease by 2.15%
(c) If EBIT increase by 1%, EPS will increase by 3.12%
(d) If the sales increase by 1%, EBIT will increase by 1.56%
(e) Both (a) and (b) above.

(3 marks)

71. Consider the following information of M/s. ABC Ltd:

[< Answer >](#)

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

The level of output at which DTL will be undefined is

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

(2 marks)

72. Pacific Ltd. is a toy manufacturing company. The Degree of Operating Leverage and the Degree of Financial Leverage for the company are 1.1 and 1.5 respectively. The company has a debt of Rs. 6 crore on which interest is paid at 10% p.a. It has a preference capital of Rs. 4 crore on which preference dividend is payable at 10 % p.a. The variable cost to sales ratio is 40%. The tax rate applicable to the firm is 50%.

[< Answer >](#)

The sales revenue and the fixed costs of the firm are

- (a) Rs. 7.7 crore and Rs. 40 lakh (b) Rs. 7.0 crore and Rs. 42 lakh
(c) Rs. 7.7 crore and Rs. 42 lakh (d) Rs. 8.0 crore and Rs. 50 lakh
(e) Rs. 9.6 crore and Rs. 40 lakh.

(3 marks)

73. The current sales and income of M/s. Excel Industries Ltd. is Rs.25 lakh and Rs.4 lakh respectively. It is expected to increase its sales by 30%. If the company maintains the net profit margin ratio, pay out 30% as dividends and does not resort to external equity but maintains the debt-equity ratio of 1.75, the increase in borrowings will be

[< Answer >](#)

- (a) Rs.2.10 lakh (b) Rs.3.64 lakh (c) Rs.5.20 lakh (d) Rs.6.37 lakh
(e) Rs.9.10 lakh.

(2 marks)

74. Consider the following data regarding M/s. M&C Ltd.

[< Answer >](#)

Assets turnover ratio	1.111
Return on total assets	16%
Equity multiplier	3.75
Dividend	37.5%
Equity capital	Rs.12 lakh
Face value per share	Rs.6

The internal growth rate that the company can achieve without resorting to external equity is

- (a) 15% (b) 18% (c) 25% (d) 29% (e) 33%.

(3 marks)

75. Tuff Cement finances its assets by taking debt as high as 66.67 percent of the value of the assets. If the company plans to acquire a machine at a cost price of Rs.69 lakh, then the minimum amount of retained earnings that can be used for this procurement is

[< Answer >](#)

- (a) Rs.69 lakh (b) Rs.46 lakh (c) Rs.23 lakh (d) Rs.13 lakh (e) Data insufficient.

(1 marks)

76. In using the percentage of sales forecasting method the assumption is that

[< Answer >](#)

- (a) There is a direct relationship between long-term debt and sales
- (b) Inventories will increase proportionately with sales
- (c) There is a direct relationship between notes payable and sales
- (d) Retained earnings will increase proportionately with sales
- (e) Both (b) and (d) above.

(1 mark)

77. The percentage of sales forecasting method is used by management to forecast the amount of

[< Answer >](#)

- (a) Profit expected for a given percentage increase in sales
- (b) Capital financing needed to promote future growth
- (c) Cash needed to finance future growth
- (d) Debt financing needed
- (e) Both (a) and (c) above.

(1 mark)

Suggested Answers

Financial Management - I (141:01-October 04)

1. Answer : (c)

[< TOP >](#)

Reason: 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 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. Answer : (c)

[< TOP >](#)

Reason: 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. Answer : (a)

[< TOP >](#)

Reason: Foreign Exchange Regulation Act, 1973 has been replaced by Foreign Exchange Management Act, 2000 in order to facilitate the external trade and payments as well as to promote an orderly maintenance of the foreign exchange market in India. So, the option (a) is correct.

4. Answer : (b)

[< TOP >](#)

Reason: All the participants in the call money market are split into two categories. The first comprises of the entities who can borrow as well as lend in the market and the second comprises of only lenders i.e. the participants in the second category cannot borrow in the call money market. RBI, DFHI, STCIL and commercial banks belong to the first category and all the financial institutions and mutual funds belong to the second. Hence, (b) cannot borrow in the call money market.

5. Answer : (e)

[< TOP >](#)

Reason: Since, in a bought-out-deal, the shares are initially offered to the sponsor and the sponsor has the discretion to offload the shares to the public at an appropriate time, it may misuse its discretion to disinvest the shares in favor of the public; this may affect the interests of the promoters of the company.

6. Answer : (a)

[< TOP >](#)

Reason: Self-explanatory.

7. Answer : (c)

[< TOP >](#)

Reason: Certificate of deposit (CD) is a financial instrument where an investor has to invest a certain sum to get a fixed amount (principal and accrued interest) on maturity at the contracted rate. So it is similar to a time deposit. CDs are transferable simply by endorsement and delivery by the holder without any restriction, whereas its maturity period ranges from 15 days to one year. But as it is a liability to the issuing banks, CDs are also subjected to the reserve requirements of the bank.

8. Answer : (c)

[< TOP >](#)

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

Lead managers undertake activities like preparation of offer circular, marketing the issues etc. Underwriters of the issue bear interest rate or market risks moving against the issuer before they have placed bonds or depository receipts.

9. Answer : (a)

[< TOP >](#)

Reason: 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. Hence (a) is the answer. Commercial papers are short-term unsecured promissory notes, which pay a fixed amount. Straight debt bonds and floating rate notes are long-term instruments having a maturity of over one year.

10. Answer : (b)

[< TOP >](#)

Reason: Medium-Term Notes (MTNs) are defined as sequentially issued fixed-income securities which have a maturity of over one year. It enables an issuer to issue Euronotes for different maturities, from one year up to the desired level of maturity.

Hence (b) is the correct choice.

Commercial Papers are short-term, unsecured promissory notes issued by well known companies that are financially strong and carry a high credit rating.

American Depository Receipts (ADRs) are dollar denominated negotiable certificates and they represent a non-US company's publicly traded equity.

Treasury Bills are short-term instruments issued by the government to tide over short-term liquidity shortfalls.

Certificate of Deposits are issued by banks in the form of usance promissory notes. These bank deposits are negotiable and are in marketable form bearing specific face value and maturity.

Hence, options (a), (c), (d) and (e) are false.

11. Answer : (a)

[< TOP >](#)

Reason: Arbitrageurs are participants who work towards obtaining risk free profits by simultaneously buying and selling similar instruments in different markets. Hence, (a) is the correct choice. Speculators are traders who enter the futures or options contract, with a view of making profit from the subsequent price movements and they operate at a high level of risk in anticipation of profits.

Factors manage the receivables of the firm and brokers deal in securities on their own account.

Authorized Dealers are firms or organizations to whom the RBI delegates its powers to deal with the foreign exchange transactions. Hence, options (b), (c), (d) and (e) are incorrect.

12. Answer : (e)

[< TOP >](#)

Reason: Commercial papers are short-term, unsecured promissory notes issued at a discount to face value by well-known companies that are financially strong and carry a high credit rating. As per the guidelines, any company wishing to raise money through CP has to fulfill the following requirements:

i. i. The tangible net worth of issuing company should not be less than Rs.4 crores.

ii. ii. The fund based working capital limit should not be less than Rs.4 crores

iii.iii. The company should obtain the second highest credit rating from one of the approved credit rating agencies.

iv. iv. Board resolution authorizing the issue is required.

Of the above, in the given case, the company has not met (ii) and (iii). Hence, it cannot issue commercial paper of any amount. Hence, (a), (b) and (c) are not correct. (d) is also not correct because the condition (ii) will be met but the condition (iii) will not be met. Hence, the answer is (e).

13. Answer : (c)

[< TOP >](#)

Reason: Regression analysis is a statistical method which is free from subjectivity.

14. Answer : (d)

[< TOP >](#)

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

15. Answer : (a)

[< TOP >](#)

Reason: Primary market allows the corporate houses to raise long term funds by issuing new securities like, shares – equity and preference as well as debentures. The venture capital funding companies generally dilute their stakes in a company by selling their holdings in any company to the investors through secondary capital market route.

16. Answer : (a)

[< TOP >](#)

Reason: 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.

17. Answer : (b) [< TOP >](#)

Reason: 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.

18. Answer : (e) [< TOP >](#)

Reason: Individual preference of present consumption to future consumption, gradually decreasing purchasing power of money, uncertainty of the future and the possibility of the productive deployment of money to generate real returns in future are the factors behind the time value of money. Hence, the alternatives (c) and (d) both are correct and so the option (e) is the answer

19. Answer : (b) [< TOP >](#)

Reason: Capital recovery factor is the inverse of the PVIFA factor. It can be applied to find out the amount that can be withdrawn periodically for a certain length of time, if a given amount is invested today. Hence I is not true and III is true and the answer is (b).

20. Answer : (e) [< TOP >](#)

Reason: 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 correct one.

21. Answer : (b) [< TOP >](#)

Reason: According to the SML equation:

$$k_j = R_f + \beta_j (k_m - R_f)$$

The slope is $(k_m - R_f)$. When the slope is zero, $k_j = R_f + 0 = R_f$

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

$$\therefore R_f = k_m = k_j$$

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

22. Answer : (b) [< TOP >](#)

Reason: According to CAPM, required rate of return = $R_f + \beta (R_m - R_f)$

Where R_f is the risk-free rate of return, β 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).

23. Answer : (a) [< TOP >](#)

Reason: For any investment, the investor is required to bear two types of risks – Diversifiable and non-diversifiable. Changes in the Government policy, war, inflation (due to high level of fiscal deficit), drought, etc are the examples of non-diversifiable risk as these will affect the entire market. But the change in the Government policy on the entertainment industry will affect the instruments for that sector only that may be easily diversifiable.

24. Answer : (d) [< TOP >](#)

Reason: According to CAPM a security's required rate of return is given as risk free rate of return + Beta (Excess of market return over risk-free rate of return). The excess of market return over risk free rate is referred to as market

risk premium and the product of the risk premium and beta of the security is referred to as the risk premium based on the market risk or the systematic or non-diversifiable risk. Hence, (d) is the answer and the others are incorrect.

25. Answer : (a) [< TOP >](#)

Reason: The single period equity valuation model is : $P_0 = (D_1 + P_1) / (1 + k_e)$. All the alternatives except (a) are implied by the single period valuation model.

26. Answer : (b) [< TOP >](#)

Reason: Book Value is an accounting concept. Assets are recorded at historical costs and they are depreciated over years. Book value may include intangible assets at acquisition cost minus amortized value.

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.

Going Concern Value is the amount that a company could realize if it sold its business as an operating one.

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.

27. Answer : (c) [< TOP >](#)

Reason: Current yield = $\frac{\text{Coupon amount}}{\text{Market price}}$

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

∴ Current yield = Coupon rate implies that market price = face value. Further this means that the bond is trading at its face value.

Hence both (I) and (II) are true.

28. Answer : (b) [< TOP >](#)

Reason: If the E(P/E) ratio is greater than the actual P/E ratio, it indicates that the stock is under priced and this is the time to buy the stock. If the E(P/E) ratio is less than the actual P/E, the stock is currently overpriced and it is the time to sell the stock. Hence statements (I) and (III) are incorrect whereas statement (II) is correct. Therefore option (b) is the answer.

29. Answer : (a) [< TOP >](#)

Reason: Self-explanatory.

30. Answer : (d) [< TOP >](#)

Reason: Self-explanatory.

31. Answer : (d) [< TOP >](#)

Reason: Debt-Asset ratio of 1:3 implies that for every 3 rupees of total assets there is one rupee of debt and two rupees of equity. Hence, for every 2 rupees of equity there is one rupee of debt. Hence (d) is true.

∴ In this case, for every 3 rupees of assets there are 2 rupees of equity. Hence (a) is not true. Again for every 3 rupees of assets there is 1 rupee of debt. Therefore both (b) and (c) are not true. For every one rupee of debt there are two rupees of equity; hence (e) is not true.

32. Answer : (b) [< TOP >](#)

Reason: According to a funds flow statement drawn on working capital basis, an increase in current assets and a decrease in current liabilities will increase the working capital and a decrease in current assets and an increase in current liabilities will decrease the working capital. Further, a use of funds in the funds flow statement drawn on working capital basis, causes a decrease in the working capital, and payment of dividends is one such use; hence (b) is the answer. Accordingly, decrease in accounts payable (a current liability), decrease in accrued taxes (a current liability) and increase in prepaid expenses and cash (current assets) will increase the working capital. Hence, (a),

(d), (c) and (e) are not the answers.

33. Answer : (a)

[< TOP >](#)

Reason: Analyzing return ratios is referred to as DuPont Analysis. This system highlights the inter-relationships in the contents of financial statements. Hence, the answer is (a). The other alternatives compare the financial statements by taking the individual items of different financial statements and reviewing the changes that have occurred from year to year and over the years.

34. Answer : (d)

[< TOP >](#)

Reason: Assets turnover ratio is the ratio of sales value to total assets. For a company, generally, the sales value can be improved in a very short term and the higher the sales value at a certain level of asset size, more will be assets turnover ratio that implies a better utilization of the assets the company.

35. Answer : (b)

[< TOP >](#)

Reason: The future relationship between various costs to sales is assumed to follow historical relationship in case of percent of sales method. But in budgeted expense method, the estimation of the various items are considered on the basis of the expected developments in the context of the preparation of the proforma income statement. Trend analysis and regression analysis are used for the projection of sales volume of the company. Hence, the option (b) is the answer.

36. Answer : (d)

[< TOP >](#)

Reason: A funds flow statement explains the various sources from which funds are raised and the uses to which these funds are put. Analysis of the same over a period of time will enable the management to detect the imbalances and take appropriate action, to appraise the performance of divisions, to evaluate the pattern of firm's financing and to plan for the future financing. The analysis of the funds flow statement will in no way help to evaluate the quality of firm's top management. Hence (d) is the answer.

37. Answer : (a)

[< TOP >](#)

Reason: In a funds flow statement drawn on total resources basis, funds from operations (i.e., Net income and non cash expenses), increase in equity capital and liabilities and decrease in assets are shown as sources of funds. Decrease in liabilities, increase in assets and dividend payments are shown as uses of funds. In the given case, preliminary expenses written off, being a non-cash expense is shown as source of funds. Hence, answer is (a). Dividend payment, decrease in accrued expenses, reduction in debenture capital and increase in plant and machinery are shown as uses of funds; hence (b), (c), (d) and (e) are not true.

38. Answer : (e)

[< TOP >](#)

Reason: A fund flow statement is a statement which explains the various sources from which funds were raised and the uses to which these funds were put. Hence (e) is the answer. Proforma income statement reflects the future profit/loss of the company. Proforma balance sheet helps in estimating the financial position of the company at some time in future. Cash budgets are detailed projections of the specific incidence of cash moving in and out of the business. Sales budget helps in forecasting the sales for a future period. Hence, (e) is the answer.

39. Answer : (c)

[< TOP >](#)

Reason: Self explanatory.

40. Answer : (c)

[< TOP >](#)

Reason: DOL of 3 implies that 1% change in sales will result in 3% change in EBIT and DFL of 2 implies that 1% change in EBIT will result in 2% change in EPS. DTL is the product of DOL and DFL and DTL in the given case is 6, which implies that 1% change in sales will result in 6% change in EPS. Hence, (c) is the answer.

41. Answer : (c)

[< TOP >](#)

$$\text{Reason: } k = \frac{F - P}{P} \times \frac{365}{d} \text{ or, } P = \frac{\frac{F}{1 + \frac{dk}{365}}}{\left(1 + \frac{91 \times 0.12}{365}\right)} = 97.093 \approx \text{Rs. } 97.10$$

42. Answer : (c)

[< TOP >](#)

Reason : According to the rule of 69, the doubling period = $0.35 + \frac{69}{\text{interest rate}}$

Doubling period of Kisan Vikas Patra = 7 years + 3 months = $7 + \frac{3}{12} = 7.25$ years.

$$\therefore 7.25 = 0.35 + \frac{69}{\text{interest rate}} \quad \text{or } 6.9 = \frac{69}{\text{interest rate}} \quad \text{or interest rate} = \frac{69}{6.9} = 10 \text{ percent.}$$

43. Answer : (d)

Reason : FVIFA (annuity due) = FVIFA (1 + interest rate)

$$\begin{aligned} \text{FVIFA (1\%, 60)} &= \left[\frac{(1.01)^{60} - 1}{0.01} \right] (1.01) \\ &= 82.486 \end{aligned}$$

$\therefore$ Amount receivable in future = $82.486 \times 2000 = \text{Rs. } 1,64,973$

(Note that 12% compounded monthly means 1% interest for each month for $12 \times 5 = 60$ months).

44. Answer : (c)

$$\text{Reason : } 23680 (1 + r)^9 = 40000 \quad \text{or} \quad r = \left[\frac{40000}{23680} \right]^{1/9} - 1 = 0.05998 \approx 0.06 \text{ i.e. 6 percent.}$$

45. Answer : (c)

$$\begin{aligned} \text{Reason: Amount that Ashish should invest} &= \text{Rs } 2,000 \times \text{PVIFA}_{(9\%, 6 \text{ years})} \times \text{PVIF}_{(9\%, 2 \text{ years})} \\ &= 2,000 \times 4.486 \times 0.842 = \text{Rs. } 7,554.42 \end{aligned}$$

46. Answer : (d)

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

$$r = \left(1 + \frac{k}{m} \right)^m - 1 \quad \text{where, } m \text{ is the frequency of compounding per year.}$$

$$\text{Hence, } 0.0848 = \left(1 + \frac{k}{3} \right)^3 - 1 \quad \text{Hence, } k = 8.25\%.$$

Option (d) is the correct choice.

47. Answer : (b)

Reason: Let the equal annual installment be A.

$$41,000 = A \times \text{PVIFA}_{(7\%, 5)}$$

$$\text{Therefore } A = \frac{41,000}{4.100} = \text{Rs. } 10,000$$

Every installment comprises an interest component and a principal component. The interest component in the first installment of Rs. 10,000 = $0.07 \times 41,000 = \text{Rs. } 2,870$.

Hence the amount of principal amortized by the first installment = $10,000 - 2,870 = \text{Rs. } 7,130$.

Hence, option (b) is the correct choice.

48. Answer : (d)

$$\frac{\text{Cov}(i, m)}{\sigma_m^2}$$

$$\text{Reason: } \beta = \frac{\text{Cov}(i, m)}{\sigma_m^2} \quad \text{or } \text{Cov}(i, m) = \beta \cdot \sigma_m^2 = 1.63 (16.25)^2 = 430.42\%^2.$$

49. Answer : (b)

Reason: Expected rate of return $= \sum r_i p_i$
 $= (10 \times 0.30) + (12 \times 0.10) + (15 \times 0.40) + (20 \times 0.20) = 14.2\%$

50. Answer : (b)

[< TOP >](#)

Reason: 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 B = 1.5 (0.15 – 0.01) = 9%.

51. Answer : (b)

[< TOP >](#)

Reason : We know, $P_0 = \frac{D_1}{k_e - g}$

Where,

P_0 = Current market price

k_e = Expected rate of return

g = Growth rate in dividends

D_1 = Dividend at the end of one year.

The above equation can be rewritten as:

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

Putting the values for the variables we get:

$$k_e = \frac{(100 \times 0.20)(1 - 0.10)}{80} + (-0.10) = \frac{20(0.90)}{80} - 0.10$$

$$= 0.125 \text{ i.e., } 12.5\%.$$

52. Answer : (b)

[< TOP >](#)

Reason: Risk premium = $\beta(R_m - R_f)$

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

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

Risk premium = 0.884 (8.75 – 6) = 2.43%.

Hence, option (b) is the correct choice.

53. Answer : (a)

[< TOP >](#)

Reason: The expected return from the shares of ESL is $k_j = 12 \times 0.20 + 16 \times 0.50 + 22 \times 0.30 = 2.40 + 8.00 + 6.60 = 17$ percent

The expected return from the market portfolio is $k_m = 10 \times 0.20 + 12 \times 0.50 + 20 \times 0.30 = 2.00 + 6.00 + 6.00 = 14$ percent.

Now, the variance of returns from the market portfolio is :

$$\sigma_m^2 = \{0.20(10 - 14)^2 + 0.50(12 - 14)^2 + 0.30(20 - 14)^2\} = 0.20 \times 16 + 0.50 \times 4 + 0.30 \times 36 = 3.2 + 2.0 + 10.8 = 16$$

The covariance of returns between the shares of ESL and the market portfolio is:

$$\begin{aligned} \text{COV}(k_j, k_m) &= \{0.20(10 - 14)(12 - 17) + 0.50(12 - 14)(16 - 17) + 0.30(20 - 14)(22 - 17)\} \\ &= \{0.20 \times (-4) \times (-5) + 0.5 \times (-2) \times (-1) + 0.30(20 - 14)(22 - 17)\} \\ &= (0.20 \times 20 + 0.50 \times 2 + 0.30 \times 30) = 4 + 1 + 9 = 14 \end{aligned}$$

$$\frac{\text{Cov}(k_j, k_m)}{\sigma_m^2} = \frac{14}{16} = 0.875$$

Now, beta is defined as the ratio between
Hence, the required value of beta = 0.875.

54. Answer : (c)

[< TOP >](#)

$$\text{Reason : Intrinsic value of a share} = \frac{D_1}{k_e - g} = \frac{D_0(1+g)}{k_e - g} = \frac{(1.50)(1.07)}{(0.12 - 0.07)} = \text{Rs.} 32.10 \cong \text{Rs.} 32.$$

55. Answer : (c)

[< TOP >](#)

$$\text{Reason : Current yield} = \frac{\text{Coupon interest}}{\text{Market Price}} = 8.33\%.$$

$$\therefore \text{Market Price} = \frac{\text{Coupon Interest}}{0.0833} = \frac{0.10 \times 1000}{0.0833} = \text{Rs.} 1,200 \text{ (approx.)}$$

Hence, the bond is trading at a premium of Rs.200 i.e., 20%. Hence, answer is (c).

56. Answer : (e)

[< TOP >](#)

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

$$\text{i.e. } 0.20 = \frac{\text{Coupon payment} + (2000 - 1800)}{1800}$$

$$\text{Hence coupon payment} = 1800 \times 0.2 - 200 = \text{Rs. } 160.$$

Hence, (e) is the answer.

57. Answer : (d)

[< TOP >](#)

$$\begin{aligned} \text{Reason : YTM} &= \frac{I + \frac{(F - P)}{n}}{(F + P)} = \frac{170 + \frac{(1200 - 1114)}{n}}{(1200 + 1114)} \\ \text{Solving we get n} &= 4.35 \text{ years} \\ &= 4.4 \text{ years} \end{aligned}$$

58. Answer : (b)

[< TOP >](#)

$$\begin{aligned} \text{Reason : Liquidation value} &= \frac{\text{Realised amount from Assets} - \text{Payment to creditors}}{\text{No. of shares}} \\ &= \frac{25 - 10}{1.5} = \frac{15}{1.5} = \text{Rs.} 10 \end{aligned}$$

59. Answer : (b)

[< TOP >](#)

Reason : The YTM is the value of 'i' in the following:

$$95 = 4PVIFA_{i,10} + 110PVIF_{i,10}$$

At $i = 5\%$, $RHS = 98.428$

At $i = 6\%$, $RHS = 90.82$

$$i = \frac{5 + \frac{98.428 - 95}{98.428 - 90.82}}{1} = 5.4$$

$$= 5.4$$

$$= 10.8\% \text{ (approximately)}$$

Hence, the answer is (b).

60. Answer : (b)

[<TOP>](#)

Reason:

(Amount in Rs.)

End of year	Dividend	Present value of dividends at 10 %
1	3(1.04)	3.12 × 0.909 = 2.84
2	3(1.04) ²	3.24 × 0.826 = 2.68
3	3(1.04) ³	3.37 × 0.751 = 2.53
4	3(1.04) ⁴	3.50 × 0.683 = 2.39
5	3.50(1.03)	3.605 × 0.621 = 2.24
6	3.50(1.03) ²	3.713 × 0.564 = 2.09
7	3.50(1.03) ³	3.824 × 0.513 = 1.96
		16.73

Year 8 dividend = Rs.3.824 (1.01)

= Rs.3.862

$$\frac{3.862}{0.1 - 0.01} = Rs.42.51$$

Therefore Market price at the end of year seven = 0.1 - 0.01 = Rs.42.51

Present value of Rs.42.91 at 10% discount rate = Rs.42.51 × 0.513 = Rs.21.81

Intrinsic value if the holding period is infinite = Rs.21.81 + Rs.16.73 = Rs.38.54

$$\text{Market value at the end of year 3} = \frac{3.5}{1.1} + \frac{3.605}{(1.1)^2} + \frac{3.713}{(1.1)^3} + \frac{3.824 + 42.51}{(1.1)^4}$$

$$3.182 + 2.978 + 2.788 + 31.646 = Rs.40.594$$

$$PV \text{ of MP} = 40.594 \times 0.751 = Rs.30.49$$

PV of dividends to be received at the end of year 1, 2 and 3 is Rs.(2.84 + 2.68 + 2.53)
Rs.8.05

$$\text{Total value} = 30.49 + 8.05 = Rs.38.54$$

61. Answer : (b)

[<TOP>](#)

Reason : Total assets = 100 (say)

∴ Debt = 60% of total assets = 60

Equity = 100 - 60 = 40

$$\therefore \text{Debt-equity ratio} = \frac{60}{40} = \frac{3}{2}$$

Given, equity = Rs.60 lakhs

$$\therefore \frac{\text{Debt}}{60} = \frac{3}{2}$$

$$\text{or Debt} = \frac{3}{2} \times 60 = 90 \text{ i.e., Rs.90 lakh.}$$

62. Answer : (d)

[< TOP >](#)

$$\begin{aligned} \text{Reason : Average collection period} &= \frac{\text{Re ceivables balance}}{\text{Average daily sales}} \\ \text{Average daily sales} &= \frac{\text{Sales}}{360} \\ \therefore \text{Average collection period} &= \frac{\text{Re ceivables balance}}{\text{sales}} \times 360 \\ \text{Average collection period} &= 40 \text{ days (given)} \\ \text{Receivables balance} &= \text{Rs.20 lakh} \\ \therefore 40 &= \frac{20}{\text{Sales}} \times 360 \\ \text{or Sales} &= \frac{20 \times 360}{40} = \text{Rs.180 lakh.} \end{aligned}$$

63. Answer : (d)

[< TOP >](#)

$$\begin{aligned} \text{Reason : Return on investment (ROI)} &= \text{EBIT} / \text{Total assets} \\ \text{Total assets} &= \text{Debt} + \text{Equity} = 300 + 150 = \text{Rs. 450 lakhs} \\ \text{EBIT} &= \text{Rs. 90 lakhs (given)} \\ \therefore \text{ROI} &= 90 / 450 = 20\%. \end{aligned}$$

64. Answer : (b)

[< TOP >](#)

$$\begin{aligned} \text{Reason : } \frac{\text{Total debt}}{\text{Equity}} &= \frac{5}{4} \text{ Adding 1 to both sides of the equation we get:} \\ \frac{\text{Total debt}}{\text{Equity}} + 1 &= \frac{5}{4} + 1 \text{ or } \frac{\text{Total debt} + \text{equity}}{\text{Equity}} = \frac{5+4}{4} \text{ or } \frac{\text{Total asset}}{\text{Equity}} = \frac{9}{4} \\ \text{From above, Equity} &= \frac{\text{Total asset} \times 4}{9} = \frac{4500 \times 4}{9} = \text{Rs.2,000} \\ \text{Now, total assets} &= \text{Total debt} + \text{equity} = \text{Rs.4,500} \\ \text{or Total debt} + 2000 &= 4500 \\ \text{or Total debt} &= 4500 - 2000 = \text{Rs.2,500} \\ \text{Long term debt} &= \text{Total debt} - \text{Short term debt} = 2500 - 600 = \text{Rs.1,900.} \end{aligned}$$

65. Answer : (d)

[< TOP >](#)

$$\begin{aligned} \text{Reason : Earning Power} &= \frac{\text{EBIT}}{\text{Average Total Assets}} \\ \text{Earnings After Tax} &= \text{Rs. 9.0 lakhs.} \end{aligned}$$

$$\text{Therefore, Earnings Before Tax} = \frac{9}{(1 - 0.40)} = \text{Rs. 15 Lakhs}$$

$$\text{EBIT} = \text{Earnings Before Tax} + \text{Interest} = 15 + 8 = \text{Rs. 23 lakhs.}$$

$$\text{Net profit margin} = \frac{\text{Net profit}}{\text{Net sales}} \text{ i.e. Net sales} = \frac{\text{NP}}{\text{NPM}} = \frac{9,00,000}{0.05} = \text{Rs. 180,00,000}$$

$$\text{ATO ratio} = \frac{\text{Net sales}}{\text{Total assets}} \text{ i.e. TA} = \frac{180 \text{ lakhs}}{1.5} = \text{Rs. 120 lakhs}$$

$$\text{Therefore, Earning power} = \frac{\text{EBIT}}{\text{Average Total Assets}} = \frac{23}{120} = 0.192 \text{ i.e. } 19.2\%.$$

Hence, the correct option is (d).

66. Answer : (a)

[< TOP >](#)

Reason : Debt Equity ratio = 5:4

$$\text{Therefore Equity} = \frac{4}{9} \times 36,00,000 = \text{Rs. 16,00,000.}$$

Computation of fixed assets:

It is given that ratio of owner's equity to fixed assets is 8:15.

$$\text{i.e. Fixed Assets} = \frac{16,00,000}{8} = \frac{15}{8}$$

$$\text{Therefore, fixed assets} = 16,00,000 \times \frac{15}{8} = \text{Rs. 30,00,000.}$$

Hence Choice (a) is the correct option.

67. Answer : (a)

[< TOP >](#)

Reason : Present current ratio = Rs. 10 lakh / Rs. 5 lakh = 2.

Fixed assets purchases of Rs. 2 lakh will decrease the current assets to Rs. 8 lakh. Issue of new shares for Rs. 5 lakh will increase cash at bank, and the current assets to Rs. 13 lakh. Bills receivables dishonored will increase debtors (one form of current assets) and decrease bills receivables. As a result there will be no change in the amount of current assets. Cash worth Rs. 10,000 collection from customers will increase one constituent of current assets, and i.e. debtors (decrease another constituent of current assets) and, hence, will have no change. Hence, now current assets are Rs. 13 lakh and current liabilities are Rs. 5 lakh, current ratio is 2.6 which was earlier 2. Therefore an increase of 0.6 in current ratio.

68. Answer : (c)

[< TOP >](#)

Reason : Realization of debtors involves conversion of receivables to cash. To that extent the current assets remain constant. Raw materials purchased on credit causes an equal increase in current assets (inventory) and current liabilities (Sundry creditors). Conversion of preference shares in to equity involves the conversion of one form of long term finance to another form of long term finance. Considering the above we can say that there is no change in the NWC.

69. Answer : (c)

[< TOP >](#)

Reason : Funds from operations = Retained earnings – interest earned + amortization + depreciation + dividends + P/E W.
off = 20 – 6 + 5 + 4 + 10 + 5 = Rs. 38 lakh.

70. Answer : (e)

[< TOP >](#)

Reason : Change in EBIT with change in sales is reflected by DOL, change in EPS with change in EBIT is measured by DFL and change in EPS with change in sales is measured by DTL.

$$\text{DOL} = \frac{\text{Contribution}}{\text{EBIT}}$$

$$\text{Total assets turnover} = \frac{\text{Sales}}{\text{Total assets}} \text{ i.e. } 2 = \frac{\text{Sales}}{56,00,000}$$

Hence, sales = Rs. 1,12,00,000.

(in

Rs.)

Sales	1,12,00,000
Less: Variable costs (60% of sales)	67,20,000
Contribution	44,80,000
Less fixed costs	24,00,000
Earnings Before Interest and Taxes	20,80,000

$$\text{Degree of Operating Leverage} = \frac{\text{Contribution}}{\text{EBIT}}$$

$$= \frac{44,80,000}{20,80,000} = 2.15$$

DOL=2.15 indicates that if the sales increase or decrease by 1%, then EBIT will increase or decrease by 2.15%.

Hence, (b) is correct and (d) is incorrect.

$$\text{DFL} = \frac{\text{EBIT}}{\text{EBIT} - I - \frac{P_d}{1-t}}$$

Where EBIT = 20,80,000

$I = \frac{\text{EBIT}}{3.2}$, given by interest coverage ratio of 3.2 and P_d is nil

$$\text{DFL} = \frac{20,80,000}{20,80,000 - 6,50,000} = \frac{20,80,000}{14,30,000} = 1.45$$

DFL of 1.45 indicates if EBIT increase/decrease by 1%, EPS will increase/decrease by 1.45% Hence, (c) is incorrect.

$$\text{DTL} = \text{DOL} \times \text{DFL} = 2.15 \times 1.45 = 3.12.$$

71. Answer : (b)

[<TOP>](#)

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

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

Where, F is the fixed expenses

I is the interest expense

D_p is the preference dividend

T is the corporate tax rate

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

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

72. Answer : (c)

[< TOP >](#)

Reason :

Let S represent Sales, V represent variable costs and F represent fixed costs.

$$\text{Degree of Operating Leverage} = \frac{\text{Sales} - \text{Variable Costs}}{(\text{Sales} - \text{Variable Costs}) - \text{Fixed Costs}} = 1.1 \text{ i.e. } \frac{S - 0.4S}{(S - 0.4S) - F} = 1.1$$

i.e. $0.6S = 0.66S - 1.1F$ i.e. $0.06S - 1.1F = 0$ ----- **(Equation 1)**

$$\text{Degree of Financial Leverage} = \frac{(\text{Sales} - \text{Variable Costs}) - \text{Fixed Costs}}{(\text{Sales} - \text{Variable Costs}) - \text{Fixed Costs} - \text{Interest payment} - \frac{\text{Preference dividend}}{1 - \text{tax rate}}} = 1.5.$$

$$\text{i.e. } \frac{(S - 0.4S) - F}{(S - 0.4S) - F - 60,00,000 - \frac{40,00,000}{1 - 0.50}} = 1.5 \quad \frac{0.6S - F}{0.6S - F - 60,00,000 - 80,00,000} = 1.5$$

$$\text{i.e. } 0.6S - F = 0.9S - 1.5F - 210,00,000 \quad \text{i.e. } 0.3S - 0.5F = 210,00,000 \text{ ----- (Equation 2)}$$

Multiplying equation 1 by 0.3 and multiplying equation 2 by 0.06, and solving the resultant equations, we get

$$\begin{aligned} 0.018S - 0.33F &= 0 \\ 0.018S - 0.03F &= 12,60,000. \end{aligned}$$

$$-0.30F = -12,60,000 \quad \text{i.e. } F = \text{Rs. } 42,00,000.$$

Putting the value of F in equation 1, we get $S = \frac{1.1 \times 42,00,000}{0.06} = \text{Rs. } 770,00,000$. Hence the sales revenue for the firm is Rs.7,70,00,000 and the fixed costs are Rs.42,00,000.

73. Answer : (d)

[< TOP >](#)

Reason: New sales = 25 (1.3) = Rs.32.5 lakhs

$$\text{NPM} = \frac{4}{25} = 16\%$$

New PAT = 32.5 x 0.16 = Rs.5.2 lakhs

Dividends = 30% of 5.2 = Rs.1.56 lakhs

Retained earnings = Rs.3.64 lakhs

Increase in borrowings = 3.64 x 1.75 = Rs.6.37 lakhs

74. Answer : (d)

[< TOP >](#)

Reason: Sustainable growth rate = $\frac{\frac{A}{S} - m(1-d) \frac{A}{E}}{1}$

Equity capital = Rs.12 lakhs

Dividend = 37.5% = 0.375 x 12 = Rs.4.5 lakhs

ROA = NPM x ATO Ratio

$$\text{NPM} = \frac{\text{ROA}}{\text{ATO}} = \frac{0.16}{1.111} = 14.4\%$$

$$\text{Equity multiplier} = \frac{\text{Average assets}}{\text{Equity}}$$

$$3.75 = \frac{\text{Average assets}}{12}$$

$$\text{Average assets} = \text{Rs.45 lakhs}$$

$$\text{ROA} = \frac{\text{PAT}}{\text{Assets}}$$

$$0.16 = \frac{\text{PAT}}{45}$$

$$\text{PAT} = \text{Rs.7.2 lakhs}$$

$$d = \frac{\text{Dividends}}{\text{PAT}} = \frac{4.5}{7.2} = 0.625$$

$$\text{SGR} = \frac{\frac{0.144(1-0.625)3.75}{1} - 0.144(1-0.625)3.75}{1.111}$$

$$= \frac{0.2025}{0.90 - 0.2025} = 29\%$$

Hence, answer is (d).

75. Answer : (c)

[<TOP>](#)

Reason : The amount of debt used to finance the cost of any asset is equal to 66.67 percent of the value of the

$$\text{asset. So, the debt asset ratio is} = \frac{66.67}{100} = \frac{2}{3}$$

Hence, the amount of equity used to procure this asset is $\text{Rs.}69 \times \frac{1}{3} = \text{Rs.}23$ lakh. (This amount is assumed to be financed by using retained earnings only.)

76. Answer : (b)

[<TOP>](#)

Reason : In using the percentage of sales forecasting method the assumption is that inventories will increase proportionately with sales.

77. Answer : (c)

[<TOP>](#)

Reason : The percentage of sales forecasting method is used by management to forecast the amount of cash needed to finance future growth.

[< TOP OF THE DOCUMENT >](#)