

Question Paper

Financial Management – I (MSF1B3): October 2007

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

1. The ultimate objective of the finance manager is to increase or maximize shareholder's wealth by increasing the value [< Answer >](#) of the firm. The value of the firm is reflected by

- I. Earning Per Share (EPS).
 - II. Sales revenue.
 - III. Investments.
 - IV. Market price of the shares.
- (a) Only (I) above
 - (b) Both (I) and (II) above
 - (c) Both (I) and (IV) above
 - (d) (II), (III) and (IV) above
 - (e) All (I), (II), (III) and (IV) above.

(1 mark)

2. Which of the following is **not** an objective of the Companies Act? [< Answer >](#)

- (a) To prevent unfair trade practices, to protect the interest of consumers and sustain competition in the market
- (b) To elicit full and fair disclosure of all reasonable information relating to the affairs of the company
- (c) To protect legitimate interests of the shareholders
- (d) To ensure minimum standard of business integrity and conduct in the promotion and management of companies
- (e) To enforce proper performance of duties by the company's management.

(1 mark)

3. Identify from the following a function **not** related to the finance manager. [< Answer >](#)

- (a) Mobilizing funds
- (b) Acting as Planning Director
- (c) Deployment of funds
- (d) Control over the uses of funds
- (e) Risk return trade off.

(1 mark)

4. Which of the following is **false** with regard to disqualification of a Director for the sake of corporate governance? A Director of a company may be disqualified from being a Director under section 274(1) (g) of the Companies Act, if the company fails to [< Answer >](#)

- (a) File annual accounts
- (b) File annual returns
- (c) Repay public deposit for a continuous period
- (d) Repay Debentures with interest for a continuous period
- (e) Earn profit.

(1 mark)

5. Which of the following is/are (a) use(s) of funds in the Funds Flow Statement? [< Answer >](#)

- I. Rs.75,000 decrease in accounts receivable.
 - II. Rs.6,000 decrease in cash.
 - III. Rs.32,012 decrease in accounts payable.
 - IV. Rs.26,007 increase in accounts payable.
 - V. Rs.15,009 increase in debtors.
- (a) Only (II) above
 - (b) Only (III) above
 - (c) Both (I) and (V) above
 - (d) Both (II) and (IV) above
 - (e) Both (III) and (V) above.

(1 mark)

6. In which of the following types of issue, new securities are offered to the existing shareholders of the company on a pro rata basis? [< Answer >](#)

- I. Public issue.
- II. Rights issue.
- III. Bonus issue.
- IV. Stock-split.
- V. Private placement.
- (a) Both (I) and (II) above
- (b) Both (II) and (III) above
- (c) (II), (III) and (IV) above
- (d) (II), (IV) and (V) above
- (e) (III), (IV) and (V) above.

(1 mark)

7. Which of the following is the characteristic of the money market instruments? [< Answer >](#)

- (a) Long term maturity
- (b) High liquidity
- (c) Highly secured
- (d) Issued by the Governments only
- (e) High value.

(1 mark)

8. Ms. Riddhi has purchased a 91 day treasury bill of the face value of Rs.100 on the 12th day after its issue at a price of Rs.98.50. The yield on the above bill is [< Answer >](#)

- (a) 6.11%
- (b) 6.83%
- (c) 6.93%
- (d) 6.02%
- (e) 7.04%.

(2 marks)

9. Fairdeal Enterprises has declared to issue one rights share for every five shares held by an equity investor at a price of Rs.75 when the actual market price for the share of the company was Rs.105. What is the value of the right? [< Answer >](#)

- (a) Rs. 3
- (b) Rs. 4
- (c) Rs. 5
- (d) Rs. 6
- (e) Rs.30.

(2 marks)

10. Which of the following is **false** about private placements? [< Answer >](#)

- (a) There are very few filing requirements
- (b) Initial costs may be lower than that involved in a public issue
- (c) The time involved in realising the funds is less
- (d) It can be made out of promoter's quota
- (e) It cannot be made with related investors.

(1 mark)

11. Who of the following is **not** a major player in the secondary market for government securities? [< Answer >](#)

- (a) Commercial Banks
- (b) Financial institutions
- (c) Private corporations
- (d) Reserve Bank of India
- (e) Brokers.

(1 mark)

12. ADR is a dollar denominated publicly traded equity of a non-US company. Identify from the following the **false** statement relating to ADR level I and level II issue. [< Answer >](#)

- (a) ADR level I can be used to diversify the investor base
- (b) ADR level I instrument can be traded in the US OTC market

- (c) ADR level II requires significant disclosures to be made to the SEC
- (d) ADR level II instrument is allowed to be listed on AMEX and NYSE
- (e) ADR level II can be used for raising fresh capital.

(1 mark)

13. Who 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)

14. Which of the following is **not** a feature of Certificate of Deposit (CD)?

[< Answer >](#)

- (a) It is issued at a discount to face value
- (b) It is not subject to the reserve requirements of the bank
- (c) It is a document of title to a time deposit
- (d) It has virtually no default risk
- (e) It can be freely transferred by endorsement and delivery.

(1 mark)

15. The voting right on behalf of the shareholders under GDR issue is exercised by

[< Answer >](#)

- (a) Lead Managers
- (b) Underwriters
- (c) Custodian
- (d) Depository
- (e) Borrowing company.

(1 mark)

16. Following is the data of Samrat Production Ltd.

(Rs.)

Provision for contingencies	=	1,20,000
Short term working capital investment	=	1,20,00,000
Advances given to suppliers	=	20,00,000

The following changes have occurred during the year:

Increase in provision for contingencies	=	20,000
Short term loans and advances (taken)	=	10,00,000
Decrease in short term working capital investment	=	60,00,000

After considering the above changes the net working capital of the firm is

- (a) Rs.18,60,000
- (b) Rs. 2,00,000
- (c) Rs.68,60,000
- (d) Rs. 1,40,000
- (e) Rs.21,40,000.

(2 marks)

17. Based on the motives and strategies adopted, the participants in the derivative market can be classified into the following categories.

[< Answer >](#)

- I. Hedgers.
- II. Brokers.
- III. Speculators.
- IV. Arbitrageurs.

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

(1 mark)

18. For the exchange traded derivatives, the counter-party risk is assumed by

[< Answer >](#)

- (a) The exchange
- (b) The clearing house
- (c) SEBI
- (d) Central bank
- (e) Brokers.

(1 mark)

19. Bonds issued by non-Japanese borrowers in the domestic Japanese market is known as

[< Answer >](#)

- (a) Yankee bond
- (b) Bulldog bond
- (c) Samurai bond
- (d) Shibosai bond
- (e) Euro bond.

(1 mark)

20. Mr. Hari deposits Rs.200 at the beginning of every month in a recurring deposit scheme of Janata Bank for three years. If the bank offers an interest rate of 10 percent per annum compounded quarterly, the amount accumulated by the end of three years is (round off your answer to the nearest integer)

[< Answer >](#)

- (a) Rs.8,345
- (b) Rs.8,350
- (c) Rs.8,425
- (d) Rs.9,355
- (e) Rs.9,610.

(2 marks)

21. Sinking fund factor is the reciprocal of

[< Answer >](#)

- (a) Future value interest factor
- (b) Present value interest factor
- (c) Future value interest factor of annuity
- (d) Present value interest factor of annuity
- (e) Capital recovery factor.

(1 mark)

22. Mr. Chokkalingam has approached Good Peoples Bank for an educational loan for his son's study abroad. The bank has agreed to sanction a loan of Rs.8,00,000 to be repaid in 12 quarterly installments commencing from the end of 4 years and 3 months and the loan would bear interest at 12% on quarterly compounding. If Mr. Chokkalingam avails the loan offered by the bank, what is the equated quarterly installments to be remitted by him towards the liquidation of the loan?

[< Answer >](#)

- (a) Rs. 80,369
- (b) Rs.1,26,463
- (c) Rs.1,28,970
- (d) Rs.1,30,678
- (e) Rs.1,39,510.

(2 marks)

23. Mr. Ramesh Babu wants to buy a flat after 5 years when the price of a 1000 sq.ft. flat is expected to be Rs.20,00,000. He wants to save a fixed amount every month from his salary and deposit the same in the cumulative deposit scheme of a bank which should fetch him the cost of buying the flat after 5 years. If the bank offers interest @10% p.a. compounded quarterly on the above deposit scheme, how much amount should he save every month for the purpose?

[< Answer >](#)

- (a) Rs.25,737
- (b) Rs.25,888
- (c) Rs.26,487
- (d) Rs.30,100
- (e) Rs.33,333.

(2 marks)

24. A village money lender has granted a loan of Rs.25,000 to a farmer for buying a power tiller on condition that the borrower should pay back a sum of Rs.75,000 after 5 years . What is the implicit cost of credit granted by the money lender?

[< Answer >](#)

- (a) 20.35%
- (b) 22.15%
- (c) 23.50%

- (d) 24.57%
- (e) 28.60%.

(2 marks)

25. Which of the following statements is/are **correct**?

[< Answer >](#)

- I. If an investment is compounded annually, its nominal rate must always equal its effective rate.
 - II. The present value of a five year regular annuity will be greater than the present value of a five year annuity due, assuming that both annuities consist of a Rs.100 payment.
 - III. In an amortized loan with monthly payments, the proportion of the payment that goes toward repayment of principal falls steadily over time.
- (a) Only (I) above
 - (b) Only (II) above
 - (c) Only (III) above
 - (d) Both (I) and (II) above
 - (e) Both (I) and (III) above.

(1 mark)

26. A bank has sanctioned Rs.4,00,000 to Mrs. Nirmala for buying a flat at Tirunelveli. The cost of the flat being Rs.5,00,000, the margin amount has to be borrowed from her friend repayable by Rs.60,000 each after 6 months and 12 months. If the bank has fixed repayment program of 30 quarterly installment of Rs.22,000 commencing from the first quarter since release of the loan, what is the effective cost of borrowings for her?

[< Answer >](#)

- (a) 15.91%
- (b) 16.08%
- (c) 18.23%
- (d) 21.00%
- (e) 24.50%.

(2 marks)

27. Navajeevan Industries Ltd. anticipates the need to replace their existing machinery after 5 years for which they propose to start creating a sinking fund now itself which should accumulate to Rs.20,00,000 at the end of 5 years. If the fund deposited with a bank earns interest @9% p.a, quarterly compounded, how much amount the company has to transfer to the fund at the end of every year?

[< Answer >](#)

- (a) Rs.3,32,115
- (b) Rs.3,34,185
- (c) Rs.3,51,645
- (d) Rs.3,70,200
- (e) Rs.4,35,407.

(2 marks)

28. The effective interest earned on the Janata Deposit scheme of a bank is 12.68%. If interest is compounded monthly, what is the nominal interest rate offered by the bank on the above scheme?

[< Answer >](#)

- (a) 11.50%
- (b) 11.75%
- (c) 11.90%
- (d) 12.00%
- (e) 12.25%.

(2 marks)

29. Mr. Bharat, an executive in a bank is retiring from service shortly. For the next 4 years he proposes to lead an independent life away from his family for which he needs Rs.50,000 each at the real rupee value as of today . The annuity should start at the end of the first year of retirement and last for 3 years. If the average inflation expected in India is 5% annually, how much should he deposit in a bank which pays interest @10% p.a compounded quarterly to receive the annuity as planned by him?

[< Answer >](#)

- (a) Rs.1,23,515
- (b) Rs.1,24,350
- (c) Rs.1,35,847
- (d) Rs.1,36,724
- (e) Rs.1,38,560.

(2 marks)

30. Which of the following risks is diversifiable?

[< Answer >](#)

- (a) Entry of a new competitor

- (b) Increase in inflation rate
- (c) Natural calamities
- (d) Changes in tax rates
- (e) Decrease in interest rate.

(1 mark)

31. Suppose you want to construct a portfolio consisting of only two stocks. Maximum diversification of the risk is possible if the two stocks in the portfolio have correlation coefficient of

[< Answer >](#)

- (a) 1.0
- (b) -1.0
- (c) 0
- (d) 0.5
- (e) -0.5

(1 mark)

32. The required return on a stock is 13.75 percent. If the market risk premium is 7 percent and its beta is 2, what is the risk free rate of return?

[< Answer >](#)

- (a) 4.00%
- (b) 5.00%
- (c) 5.50%
- (d) 6.75%
- (e) 7.00%

(1 mark)

33. Which of the following relationships is represented by the Characteristic Regression Line (CRL)?

[< Answer >](#)

- (a) The return from an equity share and the variance of its returns
- (b) The return from an equity share and the return from the market index
- (c) The return from an equity share and its beta
- (d) The return from an equity share and the risk free rate of return
- (e) The return from an equity share and the market risk premium.

(1 mark)

34. Ms. Asha is actively considering to invest in the equity shares of Fair and Love Ltd. She gathers the following information on the equity shares of the company.

[< Answer >](#)

Return on the stock when the market return is zero (%)	3
Rate of return on the market (%)	10
Beta of the shares	1.1
Dividend expected next year	Rs.3
Pay-out ratio (%)	50
Current market price of the share	Rs.50

Ms. Asha expects the earnings of the company to grow at a constant rate and the pay-out ratio to remain constant. If the equity share is in market equilibrium according to the Single-index model, the expected price of the share at the end of three years will be (Round off your answer to the nearest integer)

- (a) Rs.55
- (b) Rs.60
- (c) Rs.63
- (d) Rs.69
- (e) Rs.72.

(2 marks)

35. If the risk-free rate of return is expected to increase in future and the investors become more risk averse, the Security Market Line (SML) will

[< Answer >](#)

- (a) Shift up and the slope will increase
- (b) Shift up and the slope will decrease
- (c) Shift down and the slope will increase
- (d) Shift down and the slope will decrease
- (e) Remain unchanged.

(1 mark)

36. The probability distribution of the market return is given below:

[< Answer >](#)

Probability	Market return (%)
0.3	10

0.4	8
0.3	11

Mr. Hemant Kumar is holding 100 shares in Sreelekha Ltd. and the beta of the share is 0.9. He is considering the prospects of investing in the shares of Swaroopa Ltd. and has estimated its beta as 1.70. If the current return on government securities is 7 percent; what is the additional return expected for the excess risk on the share?

- (a) 1.50%
- (b) 2.00%
- (c) 2.75%
- (d) 3.00%
- (e) 4.00%.

(2 marks)

37. The probability distribution of the rates of return on the shares of Anuradha Ltd. and that of Bharati Ltd. is as follows: [< Answer >](#)

Probability (%)	Return (%)	
	Anuradha Ltd.	Bharati Ltd.
10	– 5	– 2
20	15	10
40	27	30
20	13	15
10	8	5

A portfolio consisting of 40% of Anuradha Ltd. stocks and 60% of Bharati Ltd. stocks is formed. The expected rate of return and the standard deviation of returns on the portfolio is respectively:

- (a) 17.06%, 10.71%
- (b) 17.06%, 3.92%
- (c) 11.60%, 9.68%
- (d) 11.60%, 8.53%
- (e) 17.06%, 11.60%.

(2 marks)

38. On June 01, 2007, the market index was 14,000 points. With the expectation of a bullish trend in the near future, an analyst projected the expected value of index by the end of next 6 months as [< Answer >](#)

Expected Index	14,500	15,100	15,600
Probability	0.20	0.50	0.30

What is the expected annual return from the market?

- (a) 10.00%
- (b) 12.55%
- (c) 14.23%
- (d) 16.14%
- (e) 18.17%.

(2 marks)

39. The following table represents the probability distribution of the returns from the equity shares Ketan Exports Ltd. (KEL) and the returns from the market for the next one year: [< Answer >](#)

Probability	0.20	0.50	0.30
KEL share	10	15	20
Market Portfolio	7.5	10	15

What is the Beta coefficient of the equity shares of KEL?

- (a) 0.88
- (b) 1.00
- (c) 1.13
- (d) 1.18
- (e) 1.23.

(2 marks)

40. Consider the following information: [< Answer >](#)

Standard deviation of security 'X'	15%
Standard deviation of the returns on the market index	10%

Return on the market	18%
Correlation coefficient between stock 'X' and the market	0.60
Risk-free rate of return	7.0%

Alpha of the stock 'X' is

- (a) 0.5%
- (b) 0.7%
- (c) 1.2%
- (d) 1.7%
- (e) 2.5%.

(2 marks)

41. Bright Metals Ltd. issued fully convertible debentures with a face value of Rs.100 each. The coupon rate is 9 percent and the interest is payable half yearly over a period of three years. After three years, each bond will be converted into 10 equity shares of face value Rs.10 per share which is expected to fetch a dividend of Re.1.00 per share infinitely. Presently, the yield on the risk-free securities is 5 percent per annum. The bondholders of the company need 3 percent more as the risk premium while the expected return to the equity shareholders will go up by an additional risk premium of 4 percent. The intrinsic value of these fully convertible debentures is: (Round off your answer to the nearest integer). [< Answer >](#)

- (a) Rs. 82
- (b) Rs. 98
- (c) Rs.118
- (d) Rs.129
- (e) Rs.136.

(2 marks)

42. If a bond sells at a premium, then which of the following holds **true**? [< Answer >](#)

- (a) $P_0 < \text{par value}$ and $\text{YTM} > \text{coupon rate}$
- (b) $P_0 < \text{par value}$ and $\text{YTM} < \text{coupon rate}$
- (c) $P_0 > \text{par value}$ and $\text{YTM} = \text{coupon rate}$
- (d) $P_0 > \text{par value}$ and $\text{YTM} < \text{coupon rate}$
- (e) $P_0 = \text{par value}$ and $\text{YTM} > \text{coupon rate}$.

(1 mark)

43. You have just purchased a stock that currently pays no dividends and the same position will continue for the next two years. However, you expect that from the third year onwards, the company will begin to pay a dividend of Rs.3 per share which will grow at a constant rate of 10% per year thereafter. Assuming that stocks with similar risks require a rate of return of 15%, what is the fair price you should have paid for this security? [< Answer >](#)

- (a) Rs.39.64
- (b) Rs.43.42
- (c) Rs.45.37
- (d) Rs.66.00
- (e) Rs.69.30.

(2 marks)

44. The following information is related to Swastik Ltd.: [< Answer >](#)

Gross profit	Rs.20 lakh
Gross profit margin	25 percent
Total assets turnover ratio	4
Total debt to equity ratio	1:1
Current assets	Rs.10 lakh
Current ratio	1.25

What is the outstanding amount of term loan in its balance sheet? (Assume term loan is the only interest bearing borrowings made by the company)

- (a) Rs. 2 lakh
- (b) Rs. 3 lakh
- (c) Rs. 5 lakh
- (d) Rs.10 lakh
- (e) Rs.15 lakh.

(2 marks)

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

[< Answer >](#)

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

(1 mark)

46. Seida Industries Ltd. has an EBIT of Rs.100 lakh, and its degree of operating and financial leverages are 1.6 and 1.5 respectively. The firm's debt consists of Rs.400 lakh in bonds with a 10 percent current yield and 15% preference capital of Rs.100 lakh. The company is considering a new production process that will require an increase in fixed costs but a decrease in variable costs. If adopted, the new process will result in a degree of operating leverage of 1.7. The management of the company wants to keep the degree of total leverage at the existing level. If EBIT remains at Rs.100 lakh, what amount of bonds must be outstanding to accomplish this (assuming the current yield remains at 10 percent and the applicable tax rate is 40 percent)?

[< Answer >](#)

- (a) Rs. 41 lakh
- (b) Rs. 50 lakh
- (c) Rs. 65 lakh
- (d) Rs. 83 lakh
- (e) Rs.105 lakh.

(2 marks)

47. Which of the following statements is/are **true** regarding financial leverage?

[< Answer >](#)

- I. Other things remaining same, if financial leverage increases, market price of the equity shares as well as value of the firm decreases.
- II. Favorable or positive financial leverage occurs when the firm earns more on the assets than the fixed financing cost paid.
- III. If financial leverage is more than 1, a proportionate change in EBIT results in more than a proportionate change in earning per share.

- (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)

48. The annual sales of Ganesh Mills Ltd. is Rs.250 lakhs. While the variable costs account for 35 percent of sales, its' fixed costs are Rs.25 lakhs. They want to go in for expansion which will result in additional fixed costs of Rs.50 lakhs, decrease in variable cost to 30 percent of sales and also sales to increase by Rs.100 lakhs. What will be their degree of operating leverage if the expansion plan is carried out?

[< Answer >](#)

- (a) 1.18
- (b) 1.26
- (c) 1.44
- (d) 2.65
- (e) 3.33.

(2 marks)

49. Sandeep Ltd. is an intermediate chemical manufacturing company. The Degree of Operating Leverage and the Degree of Financial Leverage for the company are 1.5 and 1.8 respectively. The company has a debt of Rs.4 crore on which interest is paid at 12% p.a. It has a preference capital of Rs.2 crore on which preference dividend is payable at 11 % p.a. The variable cost to sales ratio is 50%. The tax rate applicable to the firm is 43%. The sales revenue and the fixed costs of the firm are

[< Answer >](#)

- (a) Rs.5.85 crore and Rs.90 lakh
- (b) Rs.6.00 crore and Rs.97 lakh
- (c) Rs.5.85 crore and Rs.97 lakh
- (d) Rs.8.65 crore and Rs.90 lakh
- (e) Rs.9.60 crore and Rs.50 lakh.

(2 marks)

50. A firm has total assets of Rs.9 million and a debt/equity of 1.5. The firm's EBIT is Rs.2 million, the interest rate on all of its debt is 10 percent and the total of spontaneous liabilities is Rs.1 million. If the tax rate is 40 percent, what is the firm's ROE?

[< Answer >](#)

- (a) 11.16%
- (b) 15.30%
- (c) 24.33%
- (d) 26.00%
- (e) 32.14%.

(2 marks)

[< Answer >](#)

51. Which of the following is likely to increase the external funds required in a given year?

- (a) The company reduces its dividend payout ratio
- (b) The company's profit margin increases
- (c) The company decides to reduce its reliance on accounts payable as a form of financing
- (d) The company is operating well below full capacity
- (e) The company can increase its accrued wages.

(1 mark)

[< Answer >](#)

52. Which of the following are objective methods of sales forecasting?

- I. Jury of executive opinion.
- II. Trend analysis.
- III. Regression analysis.
- IV. Sales force estimate.
- V. Ratio analysis.
- (a) Both (I) and (II) above
- (b) Both (II) and (III) above
- (c) Both (III) and (IV) above
- (d) (II), (III) and (IV) above
- (e) (III), (IV) and (V) above.

(1 mark)

[< Answer >](#)

53. Which of the following statements is/are **true** with respect to funds flow statement?

- (a) It shows the changes in the ownership patterns of the company
- (b) It shows the sources and uses of funds at any particular date in a year
- (c) It can be considered as a snapshot picture for the operations of the business
- (d) It cannot be manipulated by means of window dressing
- (e) It indicates how the business financed its fixed assets.

(1 mark)

[< Answer >](#)

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

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

(1 mark)

[< Answer >](#)

55. During the year 2006-07, M/s.Dutta Metal Ltd. realized receivables worth Rs.10,000 and there was an increase of Rs.30,000 in the inventories, which was bought on credit. The impact of the above on the net working capital will be

- (a) Increase by Rs.10,000
- (b) Decrease by Rs.40,000
- (c) No change in the net working capital
- (d) Increase by Rs.40,000
- (e) Increase by Rs.30,000.

(1 mark)

[< Answer >](#)

56. "Statement of Changes in Financial Position" is also known as

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

(1 mark)

[< Answer >](#)

57. Consider the following data regarding M/s. Kalyan Books and Publications Ltd. for the year 2006-2007:

(Rs.in lakh)

Retained earnings	10
Interest earned on investments	3
Amortization of copy rights written off	2
Depreciation	2
Dividends	5
Preliminary expenses written off	3

Funds from operations of M/s.Kalyan Books and Publications Ltd. during the year was

- (a) Rs.25 lakh
- (b) Rs.20 lakh
- (c) Rs.19 lakh
- (d) Rs.10 lakh
- (e) Rs.12 lakh.

(2 marks)

58. Consider the following information:

[< Answer >](#)

Gross profit margin	20%
Stock turnover ratio	6
Fixed assets turnover	4
Debtors turnover	6
Assets turnover	1.5
Gross profit	Rs.1,20,000

If the closing stock of the firm is Rs.10,000 in excess of opening stock, the cash in hand for the company is

- (a) Rs.43,000
- (b) Rs.55,000
- (c) Rs.65,000
- (d) Rs.75,000
- (e) Rs.85,000.

(2 marks)

59. Which of the following ratios give the relationship between the financial charges of a firm and its ability to service them?

[< Answer >](#)

- (a) Liquidity ratios
- (b) Profitability ratios
- (c) Leverage ratios
- (d) Turnover ratios
- (e) Coverage ratios.

(1 mark)

60. In common size analysis the items in the income statement are expressed as percentage of

[< Answer >](#)

- (a) Total assets
- (b) Net sales
- (c) Current assets
- (d) Current liabilities
- (e) Total expenses.

(1 mark)

61. Sunrise Furniture Pvt. Ltd. furnished the following details as on 31.03.07.

[< Answer >](#)

Share capital	Rs.4,00,000
General reserve	Rs.2,00,000
Sundry creditors	Rs.2,00,000
Ratio of Long-term loan to Net worth	1:2
Assets turnover	2 times
Average collection period	36 days
Receivables Turnover	10 times
Inventory turnover	10 times
Gross Profit	10% on cost of goods sold
Credit sales	90%

Number of days in a year = 360 days.

The Fixed Assets Turnover ratio is

- (a) 2.45
- (b) 2.78
- (c) 3.13
- (d) 3.76
- (e) 4.05.

(3 marks)

[< Answer >](#)

62. The following figures are collected from the annual report of Stylo Garments Ltd.:

Return on investment	12 percent
Number of outstanding equity shares	1,00,000
Net worth	Rs.25 lakh
Total debt	Rs.40 lakh
Average cost of debt	9 percent
Applicable tax rate	40 percent

The earning per share for Stylo Garments Ltd. is

- (a) Rs.2.00
- (b) Rs.2.26
- (c) Rs.2.52
- (d) Rs.2.73
- (e) Rs.2.99.

(2 marks)

[< Answer >](#)

63. Sujeet Pharma Ltd. furnished the following financial information:

EBIT	Rs.30 lakh
Depreciation	Rs.2.3 lakh
12% Term loan	Rs.25 lakh
Loan repayment installment (principal)	Rs.6.25 lakh
10% preference shares	Rs.10 lakh
Tax rate	40%

The fixed charges coverage ratio of the company is

- (a) 1.60
- (b) 2.14
- (c) 3.35
- (d) 3.76
- (e) 4.25.

(2 marks)

[< Answer >](#)

64. Consider the following data:

Quantity produced	5,000 units
DOL	1.18
DFL	1.05

If the quantity produced is increased by 15%, the percentage change in the EPS of the firm would be

- (a) 13.45%
- (b) 15.75%
- (c) 17.70%
- (d) 18.59%
- (e) 20.08%.

(1 mark)

[< Answer >](#)

65. Which of the following assumptions is **true** while calculating the external funds requirement?

- (a) The assets of the firm will increase proportionately to cost of goods sold
- (b) Net profit margin will increase at a constant rate
- (c) Dividend payout ratio will remain constant
- (d) Fixed assets will increase proportionately to sales, while current assets remain constant
- (e) The current liabilities will increase proportionately to sales.

(1 mark)

66. In which of the following condition(s) will the degree of total leverage of a firm be zero?

[< Answer >](#)

- I. The firm has no debt.
 - II. The firm has redeemed all the preference shares issued by it.
 - III. The sales revenues of the firm are just enough to meet the variable expenses.
 - IV. The earnings of the firm are exempt from tax.
- (a) Only (I) above
 - (b) Only (II) above
 - (c) Only (III) above
 - (d) Both (I) and (II) above
 - (e) Both (III) and (IV) above.

(1 mark)

67. The face value of the equity share of Sea Pearl 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%.

(2 marks)

68. Consider the following information regarding the bond issued by MX Bio-tech Ltd.:

[< Answer >](#)

Face value of the bond : Rs.1,000

Coupon per annum : 10%

Redemption : Redeemed at par after 10 years.

If the current yield of the bond is 8.25%, the bond is trading at a

- (a) Discount of 12%
- (b) Discount of 16.67%
- (c) Premium of 21.20%
- (d) Premium of 16.67%
- (e) Premium of 30%.

(2 marks)

Suggested Answers

Financial Management – I (MSF1B3): October 2007

1. Answer : (c) [< TOP](#)
Reason : The value of the firm is reflected by Earning per share (EPS)(I) and market price of the shares(IV). The volume of sales or investments made by the firm will not directly affect the value of the firm. [≥](#)
2. Answer : (a) [< TOP](#)
Reason : To prevent unfair trade practices, to protect the interest of consumers and sustain competition in the market are coming under the objectives Competition Act ,2002. All other options are true about Companies Act. [≥](#)
3. Answer : (b) [< TOP](#)
Reason : Generally the Controller acts as the Planning Director. All others are functions of Finance Manager. [≥](#)
4. Answer : (e) [< TOP](#)
Reason : A Director of a company may be disqualified from being a Director under section 274(1) (g) of the Companies Act, if the company fails to file annual accounts and annual returns, to repay public deposit and repay debentures with interest for continuous period . Not earning profit is not a ground under the Act to disqualify a Director. [≥](#)
5. Answer : (e) [< TOP](#)
Reason : - Decrease in a current asset is a source of funds. [≥](#)

- Increase in a current asset is a use of funds
- Decrease in a current liability is a use of funds
- Increase in a current liability is a source of funds

Therefore, Rs.75,000 decrease in accounts receivable, Rs.6,000 decrease in cash, and Rs.26,007 increase in accounts payable are sources of funds. Rs.32,012 decrease in accounts payable and Rs.15,009 increase in debtors are uses of funds. Therefore (III) and (V) are correct and (e) is the answer.

6. Answer : (b)

Reason : In public issue, the shares are directly issued to the general public while in private placement the securities are issued to few selected entities as decided by the management of the company. In rights issue and bonus issue new securities are offered to the existing shareholders of the company in the ratio of existing shares held by the investors i.e. on a pro rata basis whereas under stock-split the existing security is split at an appropriate rate.

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7. Answer : (b)

Reason : The characteristics of the money market instruments are the short term maturity and easy liquidity. These are generally issued by the government – union as well as the state, Public sector enterprises, banks and financial institutions, reputed corporate entities from the public sector as well as the private sector, etc. The CPs issued by the private companies are not at all secured. All the money market instruments are not of high value.

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[≥](#)

8. Answer : (e)

Reason : Yield on the T-bills may be calculated as:

$k =$

where, $F = \text{Rs.}100$, $P = \text{Rs.}98.50$ and $d = 91 - 12 = 79$ days

Hence, $k =$ $= 7.04\%$

Hence, the yield on the T – bills will be = 7.04 percent (approximately).

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9. Answer : (c)

Reason : The value of a share after the rights issue is given by $P =$

Here, $N = 4$, $P_0 = \text{Rs.}105$ and $S = \text{Rs.}75$.

The ex-rights price of the share will be $P =$ $= \text{Rs.}100$

The value of right = $105 - 100 = \text{Rs.}5$.

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10. Answer : (e)

Reason : Private placement cannot be made with unrelated investor. Hence option (e) is false. Private placement financing is the direct sale by a company to a limited number of sophisticated investors like UTI, etc. There are very few filing requirements. Compared to a public issue the cost of issue in case of private placement is less. The funds are also realized within short time. It can be made out of promoter's quota.

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11. Answer : (c)

Reason : The yield on government securities are low and this prevents many aggressive mutual funds, investors and private corporations to enter this market. The major player in the secondary market for government securities are Commercial Banks, Financial institutions, Reserve Bank of India and Brokers.

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[≥](#)

12. Answer : (e)

Reason : ADR level II cannot be used for raising fresh capital., the company can enlarge the investor base for existing shares to a great extent as it is listed in AMEX or NYSE. Hence option (e) is the right answer.

ADR is a dollar denominated publicly traded equity of a non-US company. ADR level I can be used to diversify the investor base. ADR level I instrument can be traded in the US OTC market. ADR level II requires significant disclosures to be made to the SEC.

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13. Answer : (a)

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.

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14. Answer : (b) [< TOP](#)
Reason : Certificate Deposit is subject to the reserve requirements of the bank and hence option (b) is a false statement. It is issued at a discount to face value, it is a document of title to a time deposit, it has virtually no default risk and can be freely transferred by endorsement and delivery. [≥](#)
15. Answer : (d) [< TOP](#)
Reason : The company effectively transacts with only one entity.- the Overseas Depository- for all transactions. The voting rights of the shares are exercised by the Depository as per the understanding between the issuing company and the GDR holder. 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. 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. [≥](#)
16. Answer : (c) [< TOP](#)
Reason : Provision for contingencies = 120,000 + 20,000 = Rs. 140,000
Short term investment = 120,00,000 – 60,00,000 = Rs.60,00,000
Therefore current assets = 60,00,000 + 20,00,000 = Rs.80,00,000
Current liabilities = 140,000 + 10,00,000 = Rs. 11,40,000
Net working capital = 80,00,000 - 11,40,000 = Rs.68,60,000 [≥](#)
17. Answer : (d) [< TOP](#)
Reason : Based on the motives and strategies adopted, the participants in the derivative market can be classified into the following categories . Hedgers (I) , Speculators (III) and Arbitrageurs(IV). [≥](#)
18. Answer : (b) [< TOP](#)
Reason : For the exchange traded derivatives the clearing house acts as the counter-party and assumes the default risk. They are able to meet the counter-party risk through the margin system. [≥](#)
19. Answer : (c) [< TOP](#)
Reason : Bonds issued by non-Japanese borrowers in the domestic Japanese market is known as Samurai bond. Yankee bonds are US dollar denominated bonds issued by foreign borrowers in the US bond market. Bull dog bonds are sterling denominated foreign bonds which are raised in the UK market. Shibosai bond is a privately placed bond issued in the Japanese market. A Euro bond is one which is issued outside the country of the currency issue. [≥](#)
20. Answer : (a) [< TOP](#)
Reason : First the effective interest rate on quarterly compounding will have to be calculated
$$= (1 + \quad)^4 - 1 = 0.1038$$

The effective interest rate per month = $(1 + 0.1038)^{1/12} - 1 = 0.00826$
$$FVIFA_{(0.00826, 36)} = \quad = Rs.8,345$$
 [≥](#)
21. Answer : (c) [< TOP](#)
Reason : Sinking fund factor is the reciprocal of FVIFA. Hence, (c) is the correct answer. [≥](#)
22. Answer : (c) [< TOP](#)
Reason : Loan amount(principal) = Rs.8,00,000
Principal along with interest (quarterly compounding) at the end of 4 years
= $\quad = Rs.12,83,765$
Equated quarterly installment = $\quad = Rs.1,28,970$ [≥](#)
23. Answer : (b) [< TOP](#)
Reason : The price of the flat after 5 years = Rs.20,00,000
Nominal interest rate on deposit = 10% p.a
Effective interest rate p.a = $\quad = 10.38\%$
Effective interest rate per month = $\quad = 0.00826$
The amount to be saved every month = $FV / FVIFA_{(0.00826, 60)}$
$$= Rs. 25,888$$
 [≥](#)
24. Answer : (d) [< TOP](#)
Reason : Amount borrowed = Rs.25,000 [≥](#)

Amount to be repaid = Rs.75,000

Period of the loan = 5 years

$$25,000 \times (1+k)^5 = 75,000$$

$$(1+k)^5 = 75000/25000 = 3$$

$$(1+k) = (3)^{1/5} = 1.2457$$

Therefore $k = 1.2457 - 1 = 0.2457$ ie, 24.57%.

25.

Answer : (a)

Reason : If interest is compounded annually the nominal rate always equal the effective rate. Hence, I is true. The present value of the annuity due is always greater than the present value of the regular annuity. Hence, II is incorrect. In an amortized loan with monthly payments, the proportion of the payment that goes toward repayment of principal increases steadily over time. Hence, III is also incorrect and the answer is (a).

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26.

Answer : (a)

Reason : $\text{Rs.}5,00,000 = 22,000 \text{ PVIFA}_{(k, 30)} + 60,000 \text{ PVIF}_{(k, 2)} + 60,000 \text{ PVIF}_{(k, 4)}$

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[≥](#)

To find out K, trial and error method is to be adopted :

At 3%,

$$22,000 \times 19.6 + 60,000 \times 0.943 + 60,000 \times 0.889 = 5,41,420$$

At 4% ,

$$22,000 \times 17.292 + 60,000 \times 0.925 + 60,000 \times 0.855 = 4,87,224$$

So the actual rate lies in between 3% and 4%.

By interpolation , $= 3 + 0.76 = 3.76\%$

Effective annual cost of borrowing = $(1 + 0.0376)^4 - 1 = 15.91\%$.

27.

Answer : (a)

Reason : Under quarterly compounding , effective interest rate = $= 9.31\%$

Amounting of sinking fund (FV) = Rs.20,00,000

Sinking fund factor is the inverse of FVIFA

$$\text{FVIFA}_{(9.3\%, 5 \text{ yrs.})} = 6.022$$

$$\text{Annuity} = \text{FV} / \text{Sinking fund factor} = \text{Rs.}3,32,115.$$

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[≥](#)

28.

Answer : (d)

Reason : Effective interest rate =

$$= 0.1268$$

$$1.1268 =$$

$$1.01 =$$

$$0.01 = k/12$$

$$K = 0.01 \times 12 = 12\%.$$

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[≥](#)

29.

Answer : (c)

Reason : The amount of annuity to be received to keep up the rupee value today, at the end of

$$1^{\text{st}} \text{ year} = 50,000(1 + 0.05) = \text{Rs.}52,500$$

$$2^{\text{nd}} \text{ year} = 50,000(1 + 0.05)^2 = \text{Rs.}55,125$$

$$3^{\text{rd}} \text{ year} = 50,000(1 + 0.05)^3 = \text{Rs.}57,881$$

The effective interest rate under quarterly compounding = $= 10.38\%$

$$\text{The present value of } 1^{\text{st}} \text{ year annuity} = 47,563$$

$$\text{The present value of } 2^{\text{nd}} \text{ year annuity} = 45,245$$

$$\text{The present value of } 3^{\text{rd}} \text{ year annuity} = 43,039$$

$$\text{The present value of all the annuities} = 1,35,847$$

Amount to be invested in bank on retirement = Rs.1,35,847.

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30.

Answer : (a)

Reason : Entry of a new competitor is the only diversifiable risk in the list and hence is the right answer. All others are non-diversifiable (systematic) risks.

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31. Answer : (b)
Reason : If you desire maximum diversification, you should search for stocks with a correlation coefficient equal to -1 . [< TOP](#)
[≥](#)
32. Answer : (d)
Reason : According to capital asset pricing model, $K_j = r_f + \beta (K_m - r_f)$
Or in other words, required return is equal to risk free return plus market risk premium.
ie, $13.75\% = r_f + 7$.
 $R_f = 13.75 - 7 = 6.75\%$. [< TOP](#)
[≥](#)
33. Answer : (b)
Reason : The equation for the Characteristic Regression Line (CRL) is given as:
$$K_j = \alpha + \beta K_m + e_j$$

The CRL is plotted by plotting K_j along the Y-axis and K_m along X-axis.
Hence, option (b) is the answer. [< TOP](#)
[≥](#)
34. Answer : (c)
Reason : According to single index model, expected return (K_j) = $\alpha_j + \beta K_m + e_j$
 $= 3 + 1.1 \times 10 + 0 = 14\%$
 $D_1 = \text{Rs.}3$ per share
As per Dividend capitalization approach , Required (expected) return (K_j)
 $= \frac{D_1}{K_j} + g = 0.14$
 $= \frac{D_4}{P_3} + g = 0.06 + g$
 $g = 8\%$
 $D_4 = D_1 (1 + 0.08)^3 = \text{Rs.}3.78$
 $P_3 = \frac{D_4}{K_j} = \frac{3.78}{0.06 + 0.08} = \text{Rs.}63$. [< TOP](#)
[≥](#)
35. Answer : (a)
Reason : In the security market line (SML) the y-intercept is the risk free rate of return (r_f) and the slope is difference between the rate of return on the market index and the risk free rate of return ($r_m - r_f$). If the risk free rate of return increases y-intercept increases; so SML shifts up. If the investors become more risk averse then ($r_m - r_f$) increases i.e., the slope of SML increases. Hence alternative (a) is the answer. [< TOP](#)
[≥](#)
36. Answer : (b)
Reason : Expected market return = $0.3 \times 10 + 0.4 \times 8 + 0.3 \times 11 = 9.5\%$
As per CAPM, required return on Sreelekha Ltd (K_j) = $7 + 0.9(9.5 - 7) = 9.25\%$
Required return on Swaroopa Ltd. (K_j) = $7 + 1.7(9.5 - 7) = 11.25\%$
Excess return required for additional risk = $11.25 - 9.25 = 2\%$ [< TOP](#)
[≥](#)
37. Answer : (a)
Reason :

Return ($.40 \times r_A + .60 \times r_B$)	Probability	$R_i p_i$	$R_i - \Sigma R_i$	$(R_i - \Sigma R_i)^2 p_i$
$-2 - 1.2 = -3.2$	0.1	-0.32	-20.26	41.05
$6 + 6 = 12$	0.2	2.4	-5.06	5.12
$10.8 + 18 = 28.8$	0.4	11.52	11.74	55.13
$5.2 + 9 = 14.2$	0.2	2.84	-2.86	1.64
$3.2 + 3 = 6.2$	0.1	0.62	-10.86	11.79
Total		17.06		114.73

 $\therefore$ Expected return = 17.06%
Standard deviation of return = $\sqrt{114.73} = 10.71\%$. [< TOP](#)
[≥](#)
38. Answer : (d)
Reason : Returns from the market under various scenarios can be estimated as

Index	14,500	15,100	15,600
Return	$\times 2 \times 100$ = 7.14	$\times 2 \times 100$ = 15.71	$s \times 2$ $\times 100$ = 22.85
Probability	.20	.50	.30

Required expected return = $7.14 \times 0.2 + 15.71 \times 0.50 + 22.85 \times 0.3 = 16.14\%$.

39.

Answer : (e)

Reason : The expected return from the shares of KEL is $(k_j) = 10 \times 0.20 + 15 \times 0.50 + 20 \times 0.30 = 2.00 + 7.50 + 6.00 = 15.5$ percent

The expected return from the market portfolio is $(k_m) = 7.5 \times 0.20 + 10 \times 0.50 + 15 \times 0.30 = 1.50 + 5.00 + 4.5 = 11.00$ percent.

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

$$= \{0.20 (7.5 - 11)^2 + 0.50 (10 - 11)^2 + 0.30 (15 - 11)^2\} = 0.20 \times 12.25 + 0.50 \times 1 + 0.30 \times 16 = 2.45 + 0.5 + 4.8 = 7.75$$

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

$$\text{COV}(k_j, k_m) = \{0.20 (10 - 15.5) (7.5 - 11) + 0.50 (15 - 15.5) (10 - 11) + 0.30 (20 - 15.5) (15 - 11)\}$$

$$= \{0.20 \times (-5.5) \times (-3.5) + 0.5 \times (.5) \times (1) + 0.30 \times (4.5 - 4)\}$$

$$= (0.20 \times 19.25 + 0.50 \times .5 + 0.30 \times 18) = 3.85 + 0.25 + 5.4 = 9.5$$

Now, beta is defined as the ratio between $\frac{\text{COV}(k_j, k_m)}{\text{Variance of } k_m} = \frac{9.5}{7.75} = 1.23$

40.

Answer : (b)

Reason : Co-variance = $\rho_{jm} \times \sigma_j \times \sigma_m = 0.6 \times 15 \times 10 = 90$

$$\text{Beta} = \frac{\text{COV}(k_j, k_m)}{\text{Variance of } k_m} = \frac{90}{100} = 0.9$$

$$\text{Expected return} = R_f + \beta(R_m - R_f) = 7 + 0.9 (18 - 7) = 16.9\%$$

$$\text{Alpha} = k_j - \beta k_m = 16.9 - 0.90 \times 18 = 0.7\%$$

Hence (b) is the answer.

41.

Answer : (a)

Reason : Required rate of return on bond = $5 + 3 = 8\%$

Required rate of return on shares = $8 + 4 = 12\%$

Coupon = $9/2 = \text{Rs.}4.5$ semiannually

No. of coupons = $3 \times 2 = 6$

No. of equity shares after 3 years = 10

Dividend received = $1 \times 10 = \text{Rs.}10$

Price at the end of the 3rd year = $10/1.12 = \text{Rs.}83.33$

Present value of coupon and price of share = $4.5 \text{ PVIFA}_{(4\%, 6)} + 83.33 \text{ PVIF}_{(6\%, 6)}$

$$= 4.5 \times 5.242 + 83.33 \times 0.705$$

$$= 23.59 + 58.75 = \text{Rs.}82.34$$

42.

Answer : (d)

Reason : For a bond selling at a premium $P_o > \text{par value}$ and $\text{YTM} < \text{coupon rate}$.

Hence, option (d) is the answer.

43.

Answer : (c)

Reason : Dividend received in the 3rd year = Rs.3

$$D_4 = 3(1 + 0.1) = \text{Rs.}3.30$$

Under constant rate of growth, price at the end of 3rd year $P_o = \frac{D_4}{r - g} = \frac{3.30}{0.15 - 0.05} = \text{Rs.}66$

Present value of dividend and price = $69 \text{ PVIF}_{(15\%, 3 \text{ yrs.})} = \text{Rs.}45.37$

44.

Answer : (a)

Reason : Gross profit = Rs.20 lakhs and gross profit margin = 0.25

So, the sales turnover = $20/0.25 = \text{Rs.}80$ lakhs

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$$\text{Total assets} = \text{Total liabilities} = \text{Total Debt} + \text{Total equity} = 80/4 = \text{Rs.20 lakhs.}$$

But, total assets = Total liabilities = Total Debt + Total equity

and the total debt equity ratio = 2

$$\text{So, total debt} = \text{Rs.10 lakh}$$

$$\text{and total equity} = \text{Rs.10 lakh}$$

Now, the amount of current liabilities

$$= 10/1.25 = \text{Rs.8 lakhs}$$

$$\text{So, the amount of term loan in its balance sheet} = 10 - 8 = \text{Rs.2 lakh}$$

Hence, option (a) is the answer.

45. Answer : (d)

Reason : If a firm retires its debentures prematurely, its interest burden will come down that will decrease the financial leverage and total leverage of the company. It does not have any impact on the operating leverage of the company. So, the option (d) is correct.

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46. Answer : (a)

Reason : First, find the new DTL:

$$\text{DTL} = (\text{DOL})(\text{DFL})$$

$$= 1.6 \times 1.5 = 2.4$$

The new DOL at 1.7, to maintain the DTL at the existing level of 2.4,

$$\text{DFL should be} = 1.41$$

Then, find the new interest payments in a year:

$$\text{DFL} =$$

$$1.41 =$$

$$1,41,00,000 - 1.41I - 35,25,000 = 100,00,000$$

$$I = 4,07,800$$

$$\text{Coupon interest} = \text{Rs.4.078 lakh}$$

Finally, solve for the new debt level, knowing that the yield to maturity remains at 10%:

$$\text{Debt value} = \text{Rs.40.78 lakhs, say Rs.41 lakhs.}$$

Hence, option (a) is the answer.

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47. Answer : (d)

Reason : Financial leverage = %change in EPS / %change in EBIT

So if financial leverage increases market price of the equity shares as well as value of the firm increases. So statement (I) is incorrect. Favorable or positive financial leverage occurs when the firm earns more on the assets purchased with the funds than the fixed financing cost paid. So statement (II) is correct.

A percent change in EBIT results more than a proportionate change in earnings per share. So statement (III) is correct. Hence option (d) is the answer.

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48. Answer : (c)

Reason : Degree of Operating Leverage(DOL) using new sales, new variable cost percentage, and new fixed costs:

$$S_1 = \text{Rs.350 lakh}; FC_1 = \text{Rs.75 lakh}; VC = 0.30; S_1 = \text{Rs.350 lakhs.}$$

$$\text{DOL New} =$$

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49. Answer : (c)

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

$$\text{Degree of Operating Leverage} =$$

$$= 1.5 \text{ i.e.} = 1.5$$

$$\text{i.e. } 0.5S = 0.75S - 1.5F \text{ or, } 0.25S = 1.5F \text{ or, } 0.25S - 1.5F = 0. \text{ ----- (Equation 1)}$$

$$\text{Degree of Financial Leverage}$$

$$= \text{Rs.86,40,000} / \text{Rs.48,00,000} = 1.8.$$

$$\text{i.e.} = 1.8$$

$$\text{i.e. } 0.5S - F = 0.9S - 1.8F - 86,40,000 - 69,47,370$$

$$\text{i.e. } 0.4S - 0.8F = 155.87 \text{ lakhs. ----- (Equation 2)}$$

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Multiplying equation 1 by 1.6, we get $0.4S - 2.4F = 0$

Subtract equation (1) from equation (2), we get

$$0.4S - 0.8F = 155.87$$

$$0.4S - 2.4F = 0$$

$$\underline{1.6F = 155.87}$$

i.e., $F = 97.42$ lakhs.

Putting the value of F in equation 1, we get $0.25S - 146.13 = 0$

Therefore $S = 584.52$ lakhs

Hence the revenue of the firm is Rs.5.85 crores and fixed cost is 97 lakh.

50. Answer : (d)

Reason : The total assets = total liabilities.

$$9 = \text{Debt} + \text{Equity}$$

$$\text{DE ratio} = 1.5. \text{ Hence total debt} = \text{Rs.5.4 million.}$$

$$\text{Interest bearing debt} = 5.4 - 1 = \text{Rs.4.44}$$

$$\text{Equity} = \text{Rs.3.6 mill}$$

$$\text{EBIT} = 2.000$$

$$\text{Int. @ 10\%} = \underline{0.440}$$

$$1.560 \text{ mill}$$

$$\text{Tax @ 40\%} = \underline{0.624}$$

$$\text{PAT} = 0.936$$

$$\text{ROE} = 26\%.$$

51. Answer : (c)

Reason : Remember the EFR formula is stated as: $\text{EFR} = (A^*/S)\Delta S - (L^*/S)\Delta S - (m)(S_1)(RR)$. If

the firm's dividend payout decreases, RR will increase and EFR will decrease, not increase.

Therefore, statement (a) is false. If m increases, EFR will decrease. Therefore, statement (b) is false.

If the company reduces its reliance on accounts payable, then spontaneous liabilities will decrease.

Thus, EFR will increase. Therefore, statement c is correct. If the company is operating well below

full capacity, then it will not need new fixed assets. Therefore, new fixed assets required will be

smaller and EFR will decrease. Therefore, statement d is false. If the company can increase its

accrued wages, spontaneous liabilities will increase and accordingly EFR will decrease and hence (e) is false.

52. Answer : (b)

Reason : Trend analysis and Regression analysis are statistical method which is free from subjectivity.

53. Answer : (e)

Reason : Fund Flow Statement indicates how the business financed its fixed assets.

Hence, option (e) is the answer

54. Answer : (e)

Reason : All the alternatives except (e) represent uses of cash.

55. Answer : (c)

Reason : When receivable worth Rs. 10,000 are realized then cash will increase by 10,000 and

receivables worth Rs. 10,000 would decrease so there will not be any affect. Similarly when

inventory worth Rs.30,000 is bought on credit, both current assets and current liabilities will increase by Rs.30,000 such that there will not be any impact on the net working capital.

56. Answer : (e)

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.

57. Answer : (c)

Reason : Funds from operations = Retained earnings – interest earned + amortization + depreciation + dividends + P/E W. off = $10 - 3 + 2 + 2 + 5 + 3 = \text{Rs.19 lakh.}$

58. Answer : (c)

Reason : G/P margin = $\frac{10}{50} = 0.2$

Sales = $60 \times 100 = \text{Rs.6,00,000}$

Cost of goods sold (COGS) = Sales - Gross profit = Rs.4,80,000.

Stock turnover = 6 =

Average stock = $\frac{\text{COGS}}{6} = \frac{4,80,000}{6} = 80,000$

Opening stock + closing stock = 1,60,000

Opening stock + opening stock + 10,000 = 1,60,000

Opening stock = Rs.75,000

Closing stock = Rs.85,000.

Fixed Assets turnover = 4 =

Fixed assets = $\frac{4,80,000}{4} = \text{Rs.1,20,000}$

Debtors turnover ratio =

Debtors = $\frac{1,20,000}{12} = \text{Rs.1,00,000}$

Total assets turnover =

Total assets = $\frac{4,80,000}{4} = \text{Rs.1,20,000}$

Cash in hand = Total assets – Fixed assets – Inventory – Debtors

= $4,00,000 - 1,50,000 - 85,000 - 1,00,000 = \text{Rs.65,000}$

Hence (c) is the answer.

59. Answer : (e)

Reason : Coverage ratios give the relationship between the financial charges of a firm and its ability to service them. Hence (e) is the answer.

60. Answer : (b)

Reason : In common size analysis the items in the income statement are expressed as percentage of net sales. Hence (b) is the answer.

61. Answer : (c)

Reason : Ratio of Long-term loan to Net worth = 1:2

Net worth = Share capital + General Reserve = $4,00,000 + 2,00,000 = 6,00,000$

Long-term loan/ $6,00,000 = \frac{1}{2} \Rightarrow$ Long-term loan = Rs.3,00,000

$\therefore$ Total liabilities = Share capital + General Reserve + Long-term loan + sundry creditors

= $4,00,000 + 2,00,000 + 3,00,000 + 2,00,000 = \text{Rs.11,00,000}$

Assets turnover = Net Sales / Total Assets = 2 times

Total liabilities = Total assets = Rs.11,00,000

Net Sales / $11,00,000 = 2 \Rightarrow$ Net Sales = Rs.22,00,000

$\therefore$ Credit sales = 90% of sales = Rs.19,80,000

Average collection period = $360/\text{Receivables Turnover ratio} = 36$ days

But Receivables turnover ratio = Credit sales / Receivables = 10

= $19,80,000/\text{Receivables} = 10$

Receivables = $19,80,000/10 = \text{Rs.1,98,000}$

Gross profit = 10% on COGS

Gross profit = Net Sales – COGS = 0.1 COGS

= $22,00,000 - \text{COGS} = 0.1 \text{ COGS}$

COGS = $22,00,000/1.1 = \text{Rs.20,00,000}$

Inventory turnover = $\text{COGS}/\text{Inventory} = 10$ times

= $20,00,000 / \text{Inventory} = 10$

Inventory = Rs.2,00,000

Total Assets = Rs.11,00,000

Current Assets = Inventory + Receivables = $2,00,000 + 1,98,000 = 3,98,000$

$\therefore$ Fixed Assets = Total assets – current assets = $11,00,000 - 3,98,000 = 7,02,000$

Fixed Assets Turnover = Net Sales / Fixed Assets = $22,00,000/7,02,000 = 3.13$ times

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Hence (c) is the answer.

62. Answer : (c)

Reason : Total assets of the company = Rs.25 lakh + Rs.40 lakh = Rs.65 lakh and so the amount of EBIT registered by the company = Rs.65 lakh $\times$ 12 percent = Rs.7.80 lakh.

Now, interest paid by the company against the debt capital = Rs.40 lakh $\times$ 9 percent = Rs.3.60 lakh.

Hence, the earnings before taxes is = Rs.7.80 lakh – Rs.3.60 lakh = Rs.4.20 lakh and the net profit for the company = Rs.4.20 lakh $\times$ 0.60 = Rs.2.52 lakh.

Therefore, the earnings per share will be = Rs.2.52.

Hence, option (c) is the answer.

63. Answer : (b)

Reason : =

$$= 2.1$$

Hence (b) is the answer.

64. Answer : (d)

Reason : Degree of total leverage gives the percentage change in EPS for a given percentage change in the quantity produced, i.e., $DTL = \% \text{ change in EPS} / \% \text{ change in quantity produced}$.

From the given data, $DTL = DOL \times DFL = 1.18 \times 1.05 = 1.239$.

Therefore, $1.239 = \% \text{ change in EPS} / 15\% \text{ increase in quantity produced}$.

$\% \text{ change in EPS} = 1.239 \times 15 = 18.585\% = 18.59\%$.

Hence (d) is the answer.

65. Answer : (c)

Reason : External funds requirement is equal to

Where EFR = External financing requirement

A/S = Current assets and fixed assets as a proportion of sales

ΔS = Expected increase in sales

L/S = Spontaneous liabilities as a proportion of sales

m = Net profit margin

S_1 = Projected sales for next year

d = Dividend pay-out ratio.

The above equation assumes that the dividend pay-out ratio remain constant.

Hence, the answer is (c).

In the above equation the assets of the firm are assumed to increase proportionately to sales and not cost of goods sold. Hence, (a) is not true. Similarly, net profit margin is assumed to be constant.

Hence, (b) is also not true. Fixed assets, current assets and spontaneous liabilities are assumed to increase proportionately to sales. Hence, (d) and (e) are also not true.

66. Answer : (c)

Reason : Degree of Total Leverage (DTL) =

Hence, the sales revenue of the firm is $Q \cdot S$ while the total variable expenses is $= Q \cdot V$

Now, if $QS = QV$, DTL will be zero. Hence only statement (III) is true and (c) is the answer.

67. Answer : (b)

Reason : We know, $P_0 =$

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:

$k_e =$

Putting the values for the variables we get:

$k_e =$

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$$= \frac{0.125}{1} = 0.125 \text{ i.e., } 12.5\%.$$

68. Answer : (c)

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Reason : Current yield = $\frac{12.5}{150} = 8.25\%$.

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$\therefore$ Market Price = $\frac{150}{1.0825} = \text{Rs. } 1,212 \text{ (approx.)}$

Hence, the bond is trading at a premium of Rs.212 i.e., 21.20%. Hence, answer is (c).

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