

Question Paper

Financial Management - II (142) : January 2005

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

1. A firm's credit policy consists of which of the following items? [< Answer >](#)
- (a) Credit period, cash discounts, credit standards, receivables monitoring
 - (b) Credit period, cash discounts, credit standards, collection policy
 - (c) Credit period, cash discounts, receivables monitoring, collection policy
 - (d) Cash discounts, credit standards, receivables monitoring, collection policy
 - (e) Credit period, receivables monitoring, credit standards, collection policy.
- (1 mark)
2. Protective covenants are [< Answer >](#)
- (a) To protect employees
 - (b) To protect the interests of the company
 - (c) To protect shareholders
 - (d) To protect bondholders
 - (e) To protect customers.
- (1 mark)
3. Which of the following is **not** an assumption underlying the Modigliani and Miller approach to capital structure? [< Answer >](#)
- (a) Information is freely available to investors
 - (b) The transaction cost is constant irrespective of the value of the transactions in securities
 - (c) Firms can be divided into classes in such a way that all the firms falling within one class have the same degree of business risk
 - (d) There is no corporate or personal income tax
 - (e) Investors make rational investment decisions.
- (1 mark)
4. The basic EOQ model makes a number of assumptions, including [< Answer >](#)
- (a) Fluctuating demand
 - (b) Uncertain lead times
 - (c) Zero lead-time
 - (d) Uncertain carrying cost
 - (e) Variable ordering cost.
- (1 mark)
5. All of the following are examples of tax deductible expenses, except [< Answer >](#)
- (a) Dividends on common shares
 - (b) Interest payments
 - (c) Amortization charges
 - (d) Sales and administrative expenses
 - (e) Salaries and wages paid.
- (1 mark)
6. Which of the following is **true** with respect to the term 'capital structure'? [< Answer >](#)
- (a) It is the mix of long term finances used by the firm
 - (b) It is the manner, in which a firm obtains its long term sources of funding
 - (c) It is the length of time needed to collect the accounts receivable
 - (d) It is the proportion of funds, the firm should invest in long term and short term assets
 - (e) It is the way, in which the company uses the capital at its disposal.
- (1 mark)
7. "Capacity," which is one of the traditional "five C's" of credit analysis, refers to [< Answer >](#)
- (a) The ability of the supplier of the company to extend the credit period offered to the company
 - (b) The willingness of the potential customer to meet his financial obligations
 - (c) The ability of the company to collect receivables from its customers
 - (d) The ability of the potential customer to meet his financial obligations
 - (e) The ability of the company to increase its sales.

(1 mark)

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

[< Answer >](#)

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

(1 mark)

9. The earnings-price ratio approach is used for estimating the cost of

[< Answer >](#)

- (a) Debenture capital
- (b) Preference capital
- (c) Equity capital
- (d) Term loan
- (e) Fixed deposits.

(1 mark)

10. Which of the following means of financing does **not** need any collateral security?

[< Answer >](#)

- (a) Cash credit from a private sector bank
- (b) Overdraft from a public sector bank
- (c) Cash credit from a co-operative bank
- (d) Public deposit
- (e) Term loan from a financial institution.

(1 mark)

11. Shelf stock refers to

[< Answer >](#)

- (a) Items that are stored by the firm and sold with little or no modification to customers
- (b) Items that are sold with a major modification to customers
- (c) Items that are stored by the firm and are not sold at all
- (d) Items that lost their value and sold as scraps
- (e) Items that are stored and sold by the firm on installment basis.

(1 mark)

12. Which of the following is **not** the assumption of Walter model on dividend policy?

[< Answer >](#)

- (a) Firm has an infinite life
- (b) Internal rate of return (r) and Cost of capital (k) are assumed to be constant and thus additional investment made by the firm will not change its risk and return profile
- (c) Retained earning are the only source of finance available to the firm
- (d) The retention ratio remains constant and hence the growth rate also is constant
- (e) For a given value of the firm, the dividend per share and the earning per share remain constant.

(1 mark)

13. Agency costs in the context of capital structure of firms represent the

[< Answer >](#)

- (a) Increase in the cost of production due to the increase in the cost of inputs
- (b) Increase in the sales commission payable to the sales agents
- (c) Increase in financial costs due to the rise in interest rates
- (d) Restrictive conditions imposed by the financial institutions for providing loan to the firm
- (e) Regulatory requirements to be met by the firm with regard to its human resources.

(1 mark)

14. Which of the following types of current assets is most likely to be absent in a firm, which undertakes trading business only?

[< Answer >](#)

- (a) Inventory of finished goods
- (b) Cash
- (c) Receivables
- (d) Work-in-process
- (e) Prepaid expenses.

(1 mark)

15. The equity investors expect a minimum rate of return on their investment based

[< Answer >](#)

- I. On the perception of the risk they are undertaking.
- II. On the company's past performance.
- III. On the return they are getting from similar companies.
- (a) Only (I) above
- (b) Only (III) above
- (c) Both (I) and (II) above
- (d) Both (II) and (III) above
- (e) All (I), (II) and (III) above.

(1 mark)

16. Which of the following is/are useful in monitoring both the status and composition of a firm's accounts receivable? [< Answer >](#)
- I. Days Sales Outstanding.
 - II. Ageing Schedule.
 - III. Collection Matrix.
- (a) Only (I) above (b) Only (II) above
(c) Only (III) above (d) Both (I) and (II) above (e) Both (II) and (III) above.
- (1 mark)**
17. Which of the following is **true** with regard to supplier's line of credit? [< Answer >](#)
- (a) It is similar to the letter of credit issued by banks
 - (b) It is the deferred credit facility offered by the suppliers of machineries
 - (c) It is a credit facility offered by the banks to meet the working capital requirements
 - (d) It is an interest free credit offered by the government to promote industrial development in the backward areas
 - (e) It is a credit facility offered by the financial institutions to meet the working capital requirements.
- (1 mark)**
18. "Shareholder's wealth" in a firm is represented by [< Answer >](#)
- (a) The number of people employed in the firm
 - (b) The book value of the firm's assets less the book value of its liabilities
 - (c) The amount of salary paid to its employees
 - (d) The market price per share of the firm's common stock
 - (e) The intrinsic value per share of the firm's common stock.
- (1 mark)**
19. On the basis of Walter's model on dividend policy, which of the following will logically follow, if the internal rate of return of the firm increases, other things remaining the same, assuming that the dividend payout ratio is less than 100%? [< Answer >](#)
- (a) The market price per equity share will increase
 - (b) The market price per equity share will decrease
 - (c) The market price per equity share will remain unchanged
 - (d) The return on the retained earnings decreases
 - (e) The return on the retained earnings will remain unchanged.
- (1 mark)**
20. Retained earnings are [< Answer >](#)
- I. An indication of a company's liquidity.
 - II. The same as cash in the bank.
 - III. Not important while determining dividends.
 - IV. The cumulative earnings of the company after dividends.
- (a) Only (I) above (b) Only (II) above
(c) Only (IV) above (d) Both (I) and (IV) above
(e) (I), (III) and (IV) above.
- (1 mark)**
21. Overtrading means [< Answer >](#)
- (a) The firm has disproportionately high amount of working capital with respect to the level of sales
 - (b) The firm has disproportionately low amount of working capital with respect to the level of sales
 - (c) The firm has disproportionately high level of receivables with respect to total assets
 - (d) The firm has disproportionately high level of cash with respect to total assets
 - (e) The firm has been experiencing high turnover of manpower.
- (1 mark)**
22. Which of the following would result in an increase in the debt-to-equity ratio? (Assume there are no flotation costs). [< Answer >](#)
- (a) A firm issues common stock and uses the proceeds to repurchase an equal amount of preferred stock
 - (b) A firm issues preferred stock and uses the proceeds to repurchase an equal amount of bonds
 - (c) A firm with positive additions to retained earnings uses the cash it generates to retire the existing debt

- (d) A firm uses excess cash to repurchase common stock in an amount equal to additions to retained earnings for the year
- (e) A firm issues bonds and uses the proceeds to purchase short-term assets.

(1 mark)

23. Which of the following are subsystems of the inventory management system?

[< Answer >](#)

- I. EOQ subsystem.
- II. Stock-level subsystem.
- III. Reorder point subsystem.
- IV. Safety-stock subsystem.
- (a) Only (I) above
- (b) Only (IV) above
- (c) Both (I) and (IV) above
- (d) (I), (II) and (III) above
- (e) All (I), (II), (III) and (IV) above.

(1 mark)

24. The average collection period measures the

[< Answer >](#)

- (a) Number of days between the day a customer places an order with the firm and the day the firm sends the goods to the customers
- (b) Number of days it takes a typical cheque to "clear" through the banking system
- (c) Number of days beyond the end of the credit period and before a typical customer payment is received
- (d) Number of days between the day a typical credit sale is made and the day a typical account becomes delinquent
- (e) Number of days between the day when a typical credit sale is made and the day when the firm receives the payment.

(1 mark)

25. _____ is used, while evaluating mutually exclusive investments having unequal lives.

[< Answer >](#)

- (a) Equivalent annual annuities method
- (b) Net present value method
- (c) Internal rate of return method
- (d) Accounting rate of return method
- (e) Discounted payback period method.

(1 mark)

26. Lead time refers to

[< Answer >](#)

- (a) Work in process time
- (b) The time gap between placing of the order and procuring the material
- (c) The period in which a whole lot of inventory is consumed
- (d) The time finished goods lie as inventories
- (e) The time gap between two orders.

(1 mark)

27. The _____ measures the present value return for each rupee of initial investment.

[< Answer >](#)

- (a) Payback period
- (b) Internal rate of return
- (c) Net present value
- (d) Profitability index
- (e) Accounting rate of return.

(1 mark)

28. Which of the following statements is/are **true** with respect to cash management?

[< Answer >](#)

- I. A cash management system, which minimizes collection float and maximizes payment float is better than the one with higher collection float and lower payment float.
- II. A cash management system, which maximizes collection float and minimizes payment float is better than the one with lower collection float and higher payment float.
- III. If interest rates are increasing; it should be a cause of concern for a finance manager to review his cash management system.
- (a) Only (I) above
- (b) Only (II) above
- (c) Only (III) above
- (d) Both (I) and (III) above
- (e) Both (II) and (III) above.

(1 mark)

29. VED analysis with respect to inventory management is for

[< Answer >](#)

- (a) Monitoring and control of stores and spare parts
- (b) Monitoring and control of finished goods
- (c) Monitoring and control of work in process
- (d) Monitoring and control of production process
- (e) Monitoring and control of raw materials.

(1 mark)

30. Which of the following sources of long-term finance arises out of the operations of a profit making business?

[< Answer >](#)

- (a) Preference capital
- (b) Equity capital
- (c) Debenture capital
- (d) Term loan
- (e) Reserves and surplus.

(1 mark)

31. If the net present value of a project is negative,

[< Answer >](#)

- (a) The internal rate of return is less than the required return
- (b) The internal rate of return is more than the required return
- (c) The internal rate of return is equal to the required return
- (d) The internal rate of return is less than 0
- (e) The internal rate of return is 1+ required return.

(1 mark)

32. The discount rate that equates the present value of cash flows with the initial outlay is called

[< Answer >](#)

- (a) The net present value
- (b) The internal rate of return
- (c) The sum of the present value of cash flows
- (d) The terminal value of the cash flows
- (e) The profitability index.

(1 mark)

33. Which of the following is/are **true** regarding cumulative preference shares?

[< Answer >](#)

- I. They enjoy a right to participate in surplus profits after equity dividends have been paid.
- II. They are eligible to get all the arrears of preference dividends before any equity dividend is declared.
- III. In case there are arrears in dividends on these shares for two or more years, the shareholders will be entitled to voting rights.
- (a) Only (II) above
- (b) Only (III) above
- (c) Both (I) and (II) above
- (d) Both (I) and (III) above
- (e) Both (II) and (III) above.

(1 mark)

34. According to Gordon with respect to dividend policy of a firm, the growth rate of a firm is a product of its

[< Answer >](#)

- (a) Dividend pay out ratio and return on equity
- (b) Dividend pay out ratio and return on investment
- (c) Retention ratio and return on investment
- (d) Retention ratio and return on equity
- (e) Retention ratio and cost of debt.

(1 mark)

35. As a general rule, the capital structure that maximizes the market value of a company also

[< Answer >](#)

- (a) Maximizes its average cost of capital
- (b) Maximizes its earnings per share
- (c) Maximizes the chance of bankruptcy
- (d) Minimizes the cost of capital of the company
- (e) Minimizes the cost of debt capital of the company.

(1 mark)

36. The advantages of the payback approach include all of the following except

[< Answer >](#)

- (a) It is easy to compute
- (b) It considers a project's liquidity
- (c) It considers cash flows, not net income

- (d) It provides an objective measure of profitability
- (e) It helps in weeding out risky projects.

(1 mark)

37. All of the following influence capital budgeting cash flows except _____.

[< Answer >](#)

- (a) Choice of depreciation method for tax purposes
- (b) Economic length of the project
- (c) Projected sales (revenues) for the project
- (d) Sunk costs of the project
- (e) Opportunity cost of the project.

(1 mark)

38. Which of the following is a feature of secured premium note (SPN)?

[< Answer >](#)

- (a) It is a kind of non-convertible debenture with an attached warrant
- (b) It allows the investors to subscribe to the equity of a third firm at a preferential price via-a-vis the market price
- (c) It is a partly convertible debenture with an attached warrant
- (d) It is also known as zero coupon convertible note
- (e) It is an example of a perpetual preference share.

(1 mark)

39. Which of the following might be attributed to efficient inventory management?

[< Answer >](#)

- I. High inventory turnover ratio.
- II. Low incidence of production schedule disruptions.
- III. Low total asset turnover.
- (a) Only (I) above
- (b) Only (III) above
- (c) Both (I) and (II) above
- (d) Both (I) and (III) above
- (e) Both (II) and (III) above.

(1 mark)

40. If the current ratio is less than one, it signifies that

[< Answer >](#)

- I. Net working capital is positive.
- II. Current assets are more than current liabilities.
- III. There is a possibility of technical insolvency.
- (a) Only (I) above
- (b) Only (II) above
- (c) Only (III) above
- (d) Both (I) and (III) above
- (e) All (I), (II) and (III) above.

(1 mark)

41. Kunwar Ajay Sarees, a popular Indian name in the field of sarees, presently has the annual sales of Rs.100 crore with the credit terms of 1/10, net 30 days. Average collection period of the company is 25 days. It has been observed that fifty percent of the customers in terms of sales revenue avail of the cash discount incentive. The company is contemplating of liberalizing its existing credit terms to 2/10, net 30 days. As a result, sales are likely to increase by Rs.15 crore and average collection period to decline to 15 days. Eighty percent of the customers in terms of sales revenue are expected to avail of the cash discount incentive under liberalization scheme. If the contribution to sales ratio is 20% and the cost of funds to the company is 12%, the total incremental cost to the company due to this collection relaxation program is (Assume 360 days in a year)

[< Answer >](#)

- (a) Rs.106.7 lakh
- (b) Rs.111.1 lakh
- (c) Rs.114.2 lakh
- (d) Rs.129.0 lakh
- (e) Rs.134.0 lakh.

(3 marks)

42. Tyco's business is booming and it needs to raise more capital. The company purchases raw materials from a single supplier on terms of 1/10, net 20 days, and it currently takes the discount. One way of getting the needed funds would be to forgo the discount and Tyco's owner believes that he could delay payment to 40 days without adverse effects. What is the annual rate of stretching the accounts payable? (Assume 365 days in a year)

[< Answer >](#)

- (a) 10.00%
- (b) 11.11%
- (c) 11.75%
- (d) 12.29%
- (e) 13.01%.

(1 mark)

43. Solana Ltd. follows a policy of fixed dividend payout of 80%. The earning per share for the year 2003-2004 is Rs.4.50 per share and the same is expected to grow by 20% during the year 2004-2005. The firm earns a return of

[< Answer >](#)

18% on its investments. The cost of equity of the company is 15%. The value of the share based on Gordon model would be (approximately)

- (a) Rs.31.58 (b) Rs.33.85 (c) Rs.35.75 (d) Rs.39.55 (e) Rs.40.00.

(1 mark)

44. A company has retained earnings of Rs.72 lakh and paid up equity capital of Rs.38 lakh. If the equity investors expect a rate of return of 17% and the cost of issuing fresh equity is 6%, the cost of the retained earnings to the company is

- (a) 16.4% (b) 17.0% (c) 17.7% (d) 18.1% (e) 19.1%.

(1 mark)

45. Consider the following information:

[< Answer >](#)

	Rs.
Annual consumption of raw material	20,000
Annual cost of production	25,000
Annual cost of sales	1,00,000
Average stock of raw materials	7,500
Average work-in-process	2,000

The average conversion period is

- (a) 7.2 days (b) 16.0 days (c) 28.8 days (d) 32.4 days (e) 34.2 days.

(1 mark)

46. Kapur industries places order each time for a lot of 500 units of a particular item. From the available data, the following results are obtained:

Inventory carrying cost	40%
Ordering cost per order	Rs.625
Cost per unit	Rs.50
Annual demand	1000 units

What is the loss to the organization due to its ordering policy?

- (a) Rs.1,200 (b) Rs.1,250 (c) Rs.1,400 (d) Rs.1,500 (e) Rs.1,600.

(2 marks)

47. Calculate the inventory turnover ratio from the following data

[< Answer >](#)

Particulars	Rs.
Sales	15,00,000
Purchases	9,66,750
Opening inventory	2,28,750
Closing inventory	2,95,500

- (a) 0.17 times (b) 0.29 times (c) 2.28 times (d) 3.43 times (e) 6.72 times.

(1 mark)

48. LISP Inc. is planning to purchase a new mixer/dubber for Rs.50,000. The new equipment will replace an older mixer that has been fully depreciated but has a market value of Rs.5,000. Compute the net investment required for this project. Assume a marginal tax rate of 40 percent.

- (a) Rs.43,000 (b) Rs.45,000 (c) Rs.46,000 (d) Rs.47,000 (e) Rs.48,000.

(2 marks)

49. The following information is given for a project:

[< Answer >](#)

Year	0	1	2	3
Initial Investment (Rs.)	2,10,000			
Net Cash Inflows (Rs.)		30,000	45,000	75,000

Assuming that salvage value at the end of the 3rd year is zero, the accounting rate of return for the project is

- (a) 59.96% (b) 54.56% (c) 47.62% (d) 43.56% (e) 39.80%.

(1 mark)

50. Vijaya Dairy Products, located in Gurgaon, receives large remittances from its customers in New Delhi and Jaipur. If the firm deposits these cheques in its local bank, two business days are required for the cheques to clear and the

[< Answer >](#)

funds to become usable by the firm. However, if it sends an employee to New Delhi or Jaipur and presents the check for payment at the bank upon which it is drawn, the funds are available immediately to the firm. The firm can earn 8% per annum on short-term investments and the cost of sending an employee to New Delhi or Jaipur to present the check for payment is Rs.500. What is the net benefit to the firm of employing this special handling technique for a Rs.50 lakh cheque received on Tuesday from New Delhi (assume 365 days in a year)?

- (a) Rs.226 (b) Rs.596 (c) Rs.1,096 (d) Rs.1,192 (e) Rs.1,692.

(2 marks)

51. Miraj Engineering Co. has planned its sales during Oct-Dec 2004 as follows:

[< Answer >](#)

Month	October	November	December
Sales (Rs.)	5,00,000	6,00,000	6,50,000

The products are sold on credit where 50 percent is realized in the month of sale whereas the balance is recovered by the next month. The purchases (amounting to 50% of the month's sales) are paid in the following month of purchase. Wages and administrative expenses per month amount to Rs.1,50,000 and Rs.80,000 respectively and are paid in the following month in which they are incurred. Depreciation and amortization of preliminary expenses amount to Rs.80,000 and Rs.50,000 respectively. On October 1, a testing equipment worth of Rs.20,000 has been procured with a credit period of 45 days, while on December 31, a fixed deposit will mature (maturity value Rs.1,50,000). If the cash balance at the end of October is Rs.1,00,000, the closing cash balance by the end of the month of November is

- (a) Rs.20,000 (b) Rs.1,50,000 (c) Rs.2,10,000 (d) Rs.2,20,000 (e) Rs.3,00,000.

(3 marks)

52. As per the records of Mittal group of companies the following information is available:

[< Answer >](#)

Total assets	Rs.1200 crore
Return on assets	15%
Cost of equity capital	12%

The total market value of the equity of Mittal group of companies as per net income approach is

- (a) Rs.1,200 crore (b) Rs.1,500 crore
(c) Rs.1,800 crore (d) Rs.2,000 crore (e) Rs.2,700 crore.

(1 mark)

53. Subha Enterprises had sales last year of Rs.7,00,000 and 35 percent of its sales are for cash, with the remainder buying on terms of net 30 days. It is following 365 day in a year accounting policy. If the receivables conversion period is actually 38 days, Subha's accounts receivable are

[< Answer >](#)

- (a) Rs.25,507 (b) Rs.47,370 (c) Rs.55,507 (d) Rs.72,877 (e) Rs.97,370.

(2 marks)

54. The following details are available regarding the long term sources of finance of M/s. VK Ltd.:

[< Answer >](#)

Source of finance	Range of new financing from the source (Rs. crore)	Cost %
Equity	0 – 10	14
	10 – 20	15
	20 & above	16
Preference	0 – 2	13
	2 & above	14
Debt	0 – 12	8
	12 – 18	9
	18 & above	10

The company is considering expanding its operations and requires Rs.50 crore for the same. It is planning to raise in the following proportions:

Equity shares	0.4
Debt	0.4
Preference shares	0.2

The weighted marginal cost of capital of new financing in the range of Rs.25 crore – 30 crore is

- (a) 11.4% (b) 12.0% (c) 12.8% (d) 13.0% (e) 13.2%.

(3 marks)

55. A firm is presently following EOQ system. The minimum order size stipulated by the supplier is 9000 units for utilizing a cash discount on the purchase price. The annual usage of raw materials is 1,80,000 units, its EOQ is 7,200 units and the cost per order is Rs.100. If the company decides to utilize cash discount, saving in the total ordering cost will be

(a) Rs.1,000 (b) Rs.800 (c) Rs.600 (d) Rs.500 (e) Rs.400.

(1 mark)

56. Radhika Oil Mill is planning for its cash to be maintained during the month of August. The manager has analysed the daily cash outgo for the month of June. Ten largest daily cash outflows are as follows:

Date	3rd June	7th June	10th June	12th June	15th June	16th June	18th June	22nd June	26th June	28th June
Cash outflow (Rs.)	55,000	40,000	35,000	48,000	23,000	68,000	42,000	33,000	58,000	29,000

It is expected that the pattern of cash outflows in the month of August will remain same as that of the month of June but the magnitude of cash outflows will be 20% more. If the finance manager desires sufficient cash to cover payments of 4 peak days during the month, the safety level of cash to be maintained in the month of August would be

(a) Rs.1,72,400 (b) Rs.2,06,880 (c) Rs.2,29,000 (d) Rs.2,74,800 (e) Rs.3,29,760.

(2 marks)

57. Deccan Paints Ltd. had 10 lakh equity shares outstanding at the beginning of July 2004 and these shares were traded in NSE at Rs.150 each. The rate of capitalization appropriate to the risk class to which the firm belongs is 12%. The net income for the year is Rs.2 crore and the investment budget is Rs.4 crore. Assume that no dividend is declared and the additional fund requirement is financed by new issue of equity shares. If Modigliani-Miller hypothesis holds good, the number of equity shares to be issued by the company is

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

(2 marks)

58. The following figures are extracted from the Books of Lee Vee Enterprises:

< Answer >

Profit after tax	Rs.30 crore
Number of shares outstanding	4 crore
P/E ratio	7.2

The total market value of the equity of Lee Vee Enterprises is

(a) Rs.120 crore (b) Rs.210 crore (c) Rs.216 crore (d) Rs.220 crore (e) Rs.226 crore.

(1 mark)

59. The following information regarding the equity shares of M/s. Venus Ltd. is given:

< Answer >

Market price per share	Rs.17.00
DPS	Rs. 3.00
Multiplier	3.40

According to the traditional approach to the dividend policy, the EPS for M/s. Venus Ltd., is

(a) Rs.2 (b) Rs.4 (c) Rs.6 (d) Rs.8 (e) Rs.10.

(1 mark)

60. Consider the following information on sales figure for a firm:

< Answer >

Actual Sales (Rs.)		Forecasted Sales (Rs.)	
November 2004	15,65,000	January 2005	20,50,000
December 2004	18,50,000	February 2005	21,00,000
		March 2005	19,00,000
		April 2005	23,50,000
		May 2005	22,75,000
		June 2005	19,00,000

- Cash and credit sales are expected to be 20% and 80% respectively.

- Receivables from credit sales are expected to be collected as follows: 60% of receivables, on an average, one month from the date of sale and balance 40% of receivables, on an average, two months from the date of sale
- Miscellaneous cash purchases of Rs.5000 per month are planned from January to June 2005.
- Rs.12,000 is expected from the sale of a machine in February 2005.

Total cash receipts forecast for February 2005 would be

- (a) Rs.18,97,500 (b) Rs.19,32,600 (c) Rs.20,08,000 (d) Rs.21,42,000 (e) Rs.22,12,000.

(2 marks)

61. The average daily usage rates of an inventory, lead time and their respective probabilities are as follows:

[< Answer >](#)

Daily Usage Rate (in units)	Probability	Lead time (in days)	Probability
150	0.20	20	0.60
360	0.50	35	0.40
450	0.30	—	—

The possible usage levels at which stock-outs can occur and the probability of stock-out respectively are

- (a) 3,000 units, 5,250 units and 7,200 units and 50%
 (b) 5,250 units, 7,200 units and 9,000 units and 56%
 (c) 9,000 units, 12,600 units and 15,750 units and 50%
 (d) 5,250 units, 9,000 units and 12,600 units and 46%
 (e) 7,200 units, 9,000 units and 12,600 units and 68%.

(3 marks)

62. Ignoring the time value of money, how much does a firm lose on a Rs.5,000 sale that has a 30% profit margin and a 25% probability of default, when the default actually occurs?

[< Answer >](#)

- (a) Rs.875 (b) Rs.1,250 (c) Rs.2,625 (d) Rs.3,500 (e) Rs.5,000.

(1 mark)

63. Consider the following data regarding a product:

[< Answer >](#)

Total cost of ordering and carrying inventory	Rs.4,00,000
Quantity per order	20,000 units
Carrying cost	20% of the purchase price
Fixed cost per order	Rs.1,000
Purchase price	Rs.100.

The annual usage of the materials in units is

- (a) 5 lakh (b) 10 lakh (c) 15 lakh (d) 25 lakh (e) 40 lakh.

(2 marks)

64. Decisions-Decisions Inc. is evaluating three potential projects. Given the information in the table below, the fact that the firm can invest no more than Rs.30 million and the cost of capital is 10%, the firm should invest in:

[< Answer >](#)

Year	Projects (Rs. in millions)		
	1	2	3
0	-15	-14	-27
1	24	38	65
2	45	60	90
NPV	44.01	70.13	106.47

- (a) Only project 1 (b) Only project 3
 (c) Projects 1 and 2 (d) Projects 1 and 3 (e) Projects 2 and 3.

(1 mark)

65. If a project is expected to increase inventory by Rs.15,000, increase accounts payable by Rs.10,000 and decrease accounts receivable by Rs.1,000, what effect does working capital have during the life of the project?

[< Answer >](#)

- (a) Increases investment by Rs.4,000
 (b) Increases investment by Rs.5,000
 (c) Increases investment by Rs.6,000
 (d) Increase investment by Rs.4,500

(e) Working capital has no effect during the life of the project.

(1 mark)

66. For a profitable firm in 35% marginal tax bracket with Rs.1,00,000 of annual depreciation expense, the [depreciation tax shield](#) would be

(a) Rs.10,500 (b) Rs.30,000 (c) Rs.35,000 (d) Rs.65,000 (e) Rs.45,000.

(1 mark)

67. All Advantage Ltd. writes cheques averaging Rs.15,000 a day and it takes 5 days for these cheques to clear. The [firm also receives cheques in the amount of Rs.17,000 per day, but the firm loses three days, while its receipts are being deposited and cleared. The firm's net float is](#)

(a) Rs.16,000 (b) Rs.24,000 (c) Rs.32,000 (d) Rs.75,000 (e) Rs.1,26,000.

(1 mark)

68. The following information regarding material 'VIP' has been collected from the stores register of Sunny Products [Ltd.](#)

Opening stock	100 units	@ Rs.9 per unit
Purchases:		
September 3	50 units	@ Rs.12 per unit
September 15	150 units	@ Rs.15 per unit

If 100 units were issued on September 25, according to the weighted average method of pricing, the value of the issue was

(a) Rs.900 (b) Rs.1,050 (c) Rs.1,200 (d) Rs.1,250 (e) Rs.1,500.

(2 marks)

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

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

(2 marks)

70. Consider the following data:

[< Answer >](#)

Raw-material storage period	50 days
Average stock of raw materials	Rs.6,51,000
Average balance of trade creditors	Rs.2,65,000
Assume 360 days in a year and all purchases are made on credit	

If the closing stock of raw-materials is 10% higher than the opening stock of raw-materials, the average payment period is

(a) 15 days (b) 18 days (c) 20 days (d) 25 days (e) 30 days.

(2 marks)

- 71.

[< Answer >](#)

Average Daily Usage (Units)	Probability	Lead Time (No. of days)	Probability
600	0.6	4	0.3
800	0.4	6	0.7

Normal consumption during lead time will be

(a) 1,776 units (b) 2,720 units (c) 3,672 units (d) 4,080 units (e) 4,800 units.

(1 mark)

72. The following information relates to the sources of long term finance used by Pioneer Industries Ltd.:

[< Answer >](#)

• Source	• Book value	• Market value
• Paid-up equity share capital	• 200	• 400
• Reserves and surplus	• 400	• –

• Reserves and surplus	• 400	• –
• Preference shares	• 150	• 159
• Debentures	• 250	• 241

Cost of equity share capital = 19.25%

Cost of preference share capital = 12.19%

Post tax cost of debenture capital = 8%

The difference between the weighted average cost using book value weights and market value weights would be

- (a) 0.52% (b) 0.77% (c) 0.92% (d) 1.23% (e) 1.50%.

(2 marks)

73. The following figures are collected from annual reports of Hyderabad Textiles:

[< Answer >](#)

	2003 (in Rs. 000)	2004 (in Rs.000)
Raw materials inventory – Closing Balance	180	212
Work in process inventory – Closing Balance	25	45
Purchases of raw materials during the year	1085	1192
Manufacturing expenses during the year	1165	1280
Depreciation	75	100

What should be the average conversion period of Hyderabad Textiles for the year 2004? (Assume 360 days in a year)

- (a) 3 days (b) 5 days (c) 7 days (d) 9 days (e) 11 days.

(2 marks)

74. Two companies ZED Ltd. and Que Ltd. operate in a same industry and belong to the same group of companies. Both are identical in every respect, except that Zed Ltd. uses debt, while Que Ltd. does not. The levered company has Rs.5,00,000 debentures carrying 10% rate of interest. The cost of capital and the EBIT of both firms are 15% and Rs.4,00,000 respectively. Both the companies pay tax at 40%. The total value of Zed Ltd. and Que Ltd. as per MM approach would be

- (a) Rs.28,00,000 (b) Rs.34,00,000 (c) Rs.37,00,000 (d) Rs.40,00,000 (e) Rs.58,33,000.

(2 marks)

75. Vega India Ltd. is planning to purchase a punching machine having the following details:

[< Answer >](#)

Cost of machine Rs.30,00,000

Annual cost of operations Rs.2,50,000 for the first four years

Rs.3,00,000 for the subsequent years

Useful life 10 years

The annual capital charge of the machine at a cost of capital of 10 percent is

- (a) Rs.7,62,082 (b) Rs.7,62,182 (c) Rs.7,62,382 (d) Rs.7,62,582 (e) Rs.7,62,782.

(2 marks)

76. The wealth ratio for the year 2002, 2003, and 2004 are 1.12, 1.26 and 1.4 respectively. The realized yield would be

- (a) 21% (b) 23.65% (c) 24.91% (d) 25.48% (e) 26.59%.

(1 mark)

77. Your firm buys on credit terms of 2/10, net 45 days and it always pays on the 45th day. If you calculate that this policy effectively costs your firm Rs.1,59,621 each year, the firm's average accounts payable balance is (Assume 365 days in a year)

- (a) Rs.12,340 (b) Rs.75,000 (c) Rs.1,57,500 (d) Rs.6,25,000 (e) Rs.7,50,000.

(1 mark)

END OF THE QUESTION PAPER

Suggested Answers

Financial Management - II (142) : January 2005

1. Answer : (b) [<TOP>](#)
Reason : A firm's credit policy consists of credit period, cash discounts, credit standards, collection policy.
2. Answer : (d) [<TOP>](#)
Reason : Protective covenants are used to protect the interest of the bond holders. Hence, alternative (d) is correct.
3. Answer : (b) [<TOP>](#)
Reason : The MM approach to capital structure assumes that
 - (i) information is freely available to all the investors and there are no transaction costs and all securities are infinitely divisible
 - (ii) firms can be classified in such a way that firms falling within a class have the same degree of business risk
 - (iii) there are no corporate or personal income taxes
 - (iv) investors make rational investment decisions and that there are no transaction costs.
4. Answer : (c) [<TOP>](#)
Reason : The basic EOQ model makes the following assumptions:
 - i. Constant or uniform demand
 - ii. Constant unit price
 - iii. Constant carrying costs
 - iv. Constant ordering costs
 - v. Instantaneous delivery (Zero lead time)
 - vi. Independent orders.Among the given alternatives, instantaneous delivery (zero lead time) is the correct choice. Hence, (c) is the answer.
5. Answer : (a) [<TOP>](#)
Reason : Dividends on common shares are not tax deductible expenses. All the other mentioned items are tax-deductible expenses. Hence, alternative (a) is correct.
6. Answer : (a) [<TOP>](#)
Reason : Capital structure refers to the composition of a firm's long term financing consisting of equity, preference and long term debt. The other alternatives are not best suited to define capital structure. Hence, the correct answer is (a).
7. Answer : (d) [<TOP>](#)
Reason : 'Capacity' in credit analysis refers to the ability of the potential customer to meet his financial obligations.
8. Answer : (c) [<TOP>](#)
Reason : The debt capital is the cheapest source of financing but it should be used within reasonable limits.
9. Answer : (c) [<TOP>](#)
Reason : In this case, earnings and price represents the equity earnings and equity prices respectively and hence earnings-price ratio approach is used to estimate the cost of equity capital, not the other types of capitals as mentioned in other alternatives.
10. Answer : (d) [<TOP>](#)
Reason : Public deposit may be raised by a company by duly following certain norms as per the Companies Act, 1956 without the requirement of any collateral security. While in the other cases, security is to be provided compulsorily.
11. Answer : (a) [<TOP>](#)

Reason : Shelf stock refers to items that are stored by the firm and sold with little or no modification to customers.

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

Reason : The retention ratio remains constant and hence the growth rate also is constant, this is the assumption of Gordon's dividend capitalization model not Walter model. All other are the assumptions of Walter model.

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

Reason : In many business entities, the ownership is separated from the management of the company, thereby resulting in agency problems. It does not have any influence on the manufacturing, selling and financial expenses, as well as to meet the several regulatory requirements in order to carry out the business. But considering the safety and security, the lenders generally put some restrictive covenants like, further borrowings, payment of dividends, appointment of the key persons, etc. The implications of these restrictions on the operations are known as agency costs.

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

Reason : A firm which undertakes trading business only will not have work-in-process (d) because work-in-process arises in the context of manufacturing firms. However such a firm will have the finished goods inventory (a), cash (b), receivables (c), if it sells goods on credit and prepaid expenses, if it pays for some services like insurance in advance.

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

Reason : The equity investors expect a minimum return on their investment based on the risk they are undertaking, the company's past performance and the return they are getting from similar companies they have invested in. So, the correct answer is (e).

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

Reason : DSO tells us about the number of days of sales that is outstanding. It conveys no information about the composition of the accounts receivable. Collection Matrix tells us about the collection pattern of receivables. Ageing schedule not only conveys information about the magnitude of accounts receivables, it also tells us about the age of the accounts receivable.

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

Reason : Through letter of credit (L/C), a bank stands as a guarantee for the buyer to honor the payment obligation. A bank generally disburses funds in the form of cash credit, overdraft, key credit, etc. to finance the working capital requirements of any company. If any business entity cannot afford to pay the purchase price of machinery in lump sum, it may buy the same in installments spread over a period of time; this type of scheme is known as deferred credit facility (also known as supplier's line of credit), offered by the supplier of machinery.

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

Reason : "Shareholder's wealth" in a firm is the market price per share of the firm's common stock not the intrinsic value. Alternative (a) and (c) are no way related to the shareholders wealth. Alternative (b) is not also true. Hence, alternative (d) is the correct.

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

Reason : According to Walter's model on dividend policy –

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

Given : $D < E$

In the above equation if 'r' (internal rate of return) increases then the market price per share increases.

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

Reason : Retained earning are the cumulative earnings of the company after the payment of dividend. All other points are not true in respect of retained earnings. Hence, alternative (c) is the correct choice.

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

Reason : Overtrading means that the firm has disproportionately low level of working capital with respect to the level of sales. To define it as a state in which the firm has disproportionately

high level of working capital with respect to sales or a disproportionately high level of receivables with respect to total assets or a disproportionately high level of cash with respect to total assets or low turnover of working capital is incorrect.

22. Answer : (e) [< TOP >](#)
Reason : If a firm issues bonds and uses the proceeds to purchase short-term assets, the debt equity ratio will increase, for all the other alternatives the debt equity ratio will decrease or remain same.
23. Answer : (d) [< TOP >](#)
Reason : Subsystems of inventory management system are:
i. EOQ subsystem
ii. Stock-level subsystem
iii. Reorder point subsystem
Hence, alternative (d) is the answer.
24. Answer : (e) [< TOP >](#)
Reason : The average collection period measures the number of days between when a typical credit sale is made and when the firm receives the payment.
25. Answer : (a) [< TOP >](#)
Reason : Equivalent annual annuities method is used, while evaluating mutually exclusive investments having unequal lives.
26. Answer : (b) [< TOP >](#)
Reason : The time gap between placing an order and procuring the material is called the lead time.
27. Answer : (d) [< TOP >](#)
Reason : The profitability index measures the present value return for each rupee of initial investment.
28. Answer : (d) [< TOP >](#)
Reason : Net float = Payments float – Collections float; therefore the larger the payments float and the lower the collections float the better the cash management system. If interest rates are increasing, it increases the opportunity cost of idle cash and hence should be a cause of concern for a finance manager. So both the statements (I) and (III) are correct. Hence, answer is (d).
29. Answer : (a) [< TOP >](#)
Reason : VED analysis is for monitoring and control of stores and spare parts.
30. Answer : (e) [< TOP >](#)
Reason : Preference capital (a) equity capital (b), debenture capital (c) and term loan (d) are all long-term sources of funds which are tapped from outside the firm. Reserves and surplus (e) represent retained earnings, which are generated out of profits of the firm, and they are available to the firm over the long-term.
31. Answer : (a) [< TOP >](#)
Reason : If the net present value of a project is negative, the internal rate of return is less than the required return.
32. Answer : (b) [< TOP >](#)
Reason : The discount rate that equates the present value of cash flows with the initial outlay is called. The internal rate of return.
33. Answer : (e) [< TOP >](#)
Reason : For cumulative preference shares, the dividends will be paid on a cumulative basis; In case they remain unpaid in any financial year due to insufficient profits, the company will have to pay all the arrears of preference dividends before declaring any equity dividends. Hence statement II is correct. According to Companies Act, 1956, the cumulative preference shareholders will be entitled to voting rights, if there are arrears in dividends for two or more years. Hence statement III is correct and (e) is the answer. The holder of cumulative preference shares is entitled to receive dividends and any arrears in dividends but they do not have any right to participate in the surplus profits. Hence, I is not true.
34. Answer : (c) [< TOP >](#)

Reason : The model assumes that retained earnings are the only source of finance available and return on investment is constant throughout the life of the firm. So the growth rate is the multiple of retained earnings and return on investment. So, the correct answer would be (c).

[< TOP >](#)

35. Answer : (d)

Reason : In general when cost of capital of the company is minimum, market value of the firm is maximum.

36. Answer : (d)

[< TOP >](#)

Reason : The payback approach does not provide an objective measure of profitability.

37. Answer : (d)

[< TOP >](#)

Reason : Choice of depreciation method for tax purposes, economic length of the project, projected sales (revenues) for the project and opportunity cost of the project all influence the capital budgeting cash flows. But the sunk cost doesn't influence the capital budgeting cash flows.

38. Answer : (a)

[< TOP >](#)

Reason : Secured premium note is a kind of non-convertible debenture with an attached warrant. The warrant attached to the SPN gives the holder the right to apply for and get allotment of equity shares. Hence, option (a) is the correct choice.

39. Answer : (c)

[< TOP >](#)

Reason : High inventory turnover ratio, low incidence of production schedule disruptions, and high total asset turnover all can be attributed to efficient inventory management. Hence, alternative (c) is the answer.

40. Answer : (c)

[< TOP >](#)

$\frac{\text{Current assets}}{\text{Current liabilities}}$

Reason : Current ratio = $\frac{\text{Current assets}}{\text{Current liabilities}}$

Net working capital = Current Assets – Current Liabilities

From the above equations, the following can be interpreted:

- (i) Net working capital is negative
- (ii) Current assets are less than current liabilities
- (iii) There is a possibility of technical insolvency.

41. Answer: (a)

[< TOP >](#)

Reason: Existing cost of carrying receivables

$$= \frac{100}{360} \times 25 \times 0.12 = \text{Rs.0.833 crore}$$

Cost of carrying receivables after liberalization

$$= \frac{100}{360} \times 15 \times 0.12 = 0.5 \text{ crore}$$

Saving in the cost of carrying receivables

$$= 0.833 - 0.5 = \text{Rs.0.333 crore} \dots\dots\dots (A)$$

The cost of funds invested in the receivables arising out of new sales

$$= \frac{15}{360} \times 15 \times 0.8 \times 0.12 = \text{Rs.0.06 crore} \dots\dots\dots (B)$$

Amount of discount presently paid

$$= \text{Rs.}100 \times 0.01 \times 0.5 = \text{Rs.0.5 crore}$$

Amount of discount payable after liberalization

$$= 115 \times 0.02 \times 0.80 = \text{Rs.1.84 crore}$$

The additional amount of discount payable

$$= 1.84 - 0.50 = \text{Rs.1.34 crore} \dots\dots\dots (C)$$

Thus the total incremental cost = B + C – A

$$= 0.06 + 1.34 - 0.333 = \text{Rs.1.067 crore}$$

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

Reason : Cost of Credit = $(1/99)(365/(40 - 10)) = 12.29\%$.

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

Reason : Retention ratio of the firm = 1 - pay out ratio
 $= 1 - 0.80 = 0.20$

According to the Gordon model, the expected value of the share is

$$P_0 = \frac{Y_0(1-b)}{k-br}$$

$$\frac{4.50(1-0.2)}{0.15-0.2 \times 0.18}$$

$$= 3.6/0.114 = \text{Rs.} 31.58.$$

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

Reason : Retained earnings are the amount due to equity holder which has not been paid to them. Therefore, the cost of retained earnings will be equal to expected return of equity holder. And as there is no cost of issue involved, it will be 17%.

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

Reason : Average conversion period = $\frac{\text{Average stock of work-in-process}}{\text{Averagedaily cost of production}}$

$$\text{Average daily cost of production} = \frac{25,000}{360} = \text{Rs.} 69.44$$

$$\therefore \text{Average conversion period} = \frac{2,000}{69.44} = 28.8 \text{ days.}$$

Hence option (c) is the correct choice.

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

Reason : $EOQ = \sqrt{2AO/C} = (2 \times 1000 \times 625/20)^{1/2} = 250 \text{ units.}$

Evaluation of ordering policies	Existing	EOQ
Total requirement (units)	1000	1000
Units per order	500	250
Number of orders	2	4
Average inventory (units)	250	125
Carrying cost @40%	5000	2500
Order cost @ Rs. 625	1250	2500
Total cost	6250	5000

Saving = 6250 - 5000 = Rs. 1250

So, the firm is incurring a loss of Rs. 1250 by not following an EOQ model.

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

Reason : Inventory turnover = cost of goods sold/ average inventory = 900,000/262,125 = 3.43 times.

$$\begin{aligned} \text{Cost of goods sold} &= \text{opening inventory} + \text{purchases} - \text{closing inventory} \\ &= 228,750 + 966,750 - 295,500 \\ &= \text{Rs. } 900,000 \end{aligned}$$

$$\text{Average inventory} = (\text{opening inventory} + \text{closing inventory})/2 = 262,125.$$

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

Reason : Net investment = Rs.50,000 - Rs.5,000 + Rs.5,000 (0.4) = Rs.47,000

49. Answer : (c)

[< TOP >](#)

$$\begin{aligned} \text{Reason : Average investment} &= \frac{2,10,000 + 0}{2} = \text{Rs.1,05,000} \\ \text{Average profit} &= \frac{30,000 + 45,000 + 75,000}{3} = \text{Rs.50,000} \\ \text{Accounting rate of return} &= \frac{\text{Average profit}}{\text{Average investment}} = \frac{50,000}{1,05,000} = 47.62\% \end{aligned}$$

50. Answer : (e)

[< TOP >](#)

$$\text{Reason : Benefit} = \text{Rs.50,00,000}(2)(0.08/365) - 500 = \text{Rs. 1,692}$$

51. Answer : (b)

[< TOP >](#)

Reason : Cash budget for the month of November 2004

	November
a. Opening Balance	Rs.100,000
b. Inflows:	
Sales realizations:	
Current month	Rs.300,000
Previous month	Rs.250,000
c. Outflows:	
Purchases	Rs.250,000
Wages	Rs.150,000
Administrative Expenses	Rs.80,000
Payment for the equipment	Rs.20,000
Total	Rs. 500,000
d. Closing Balance (a + b – c)	Rs.150,000

Therefore, the required closing balance by the end of the month of November will be = Rs.150,000.

52. Answer : (b)

[< TOP >](#)

$$\text{Reason : Net operating income} = \text{Total assets} \times \text{Return on asset}$$

$$= 1200 \times 0.15 = 180$$

$$\text{Market value of equity} = \text{Net operating income} / \text{cost of equity capital}$$

$$= 180 / 0.12 = \text{Rs.1500 crore.}$$

53. Answer : (b)

[< TOP >](#)

$$\text{Reason : Accounts Receivable} = 38[(\text{Rs.700,000})(0.65)]/365 = \text{Rs.47,370}$$

54. Answer : (b)

[< TOP >](#)

Reason : Calculation of breaking point:

Source of finance	Cost (%)	Range of new financing	Breaking point	Range of total new financing
		(Rs. in crore)	(Rs. in crore)	(Rs. in crore)
Equity	14	0 – 10	10/0.4 = 25	0 – 25
	15	10 – 20	20/0.4 = 50	25 – 50
	16	20 and above	–	50 and above
Preference	13	0 – 2	2/0.2 = 10	0 – 10
	14	2 and above	–	10 and above
Debt	8	0 – 12	12/0.4 = 30	0 – 30
	9	12 – 18	18/0.4 = 45	30 – 45
	10	18 and above	–	45 and above

If the new financing is in the range of Rs.25 – 30 crore

Cost of equity = 15%

Cost of preference = 14%

Cost of debt = 8%

Weighted marginal cost of capital in the above range

$$= 0.15 \times 0.4 + 0.14 \times 0.2 + 0.08 \times 0.4 = 12\%$$

Hence, answer is (b).

55. Answer : (d)

[<TOP>](#)

Reason : If the U is the annual usage, Q^* is the EOQ ; Q' is the order stipulated by the supplier for availing the discount and F is the cost per order, then the savings in the total ordering costs

$$\text{can be computed as: } \left[\frac{U}{Q^*} - \frac{U}{Q'} \right] \times F = \left[\frac{1,80,000}{7,200} - \frac{1,80,000}{9,000} \right] \times 100 = \text{Rs.500}$$

Hence option (d) is correct.

56. Answer : (d)

[<TOP>](#)

Reason : The average cash outflow during the 4 peak days in the month of June was

$$\frac{68,000 + 58,000 + 55,000 + 48,000}{4} = \text{Rs.57,250}$$

As the magnitude of cash out flows in the month of August is 20% more than that in the month of June, the expected average cash out flows during the 4 peak days in the month of August would be

$$\text{Rs.57,250} \times 1.2 = \text{Rs.68,700}$$

So the safety level of cash to be maintained is $4 \times 68,700$ or Rs. 2,74,800

57. Answer : (c)

[<TOP>](#)

Reason : The market price per share is given by

$$P_o = \frac{P_1 + D_1}{1 + k_e} \text{ where symbols are in standard use.}$$

If no dividends are declared

$$150 = \frac{P_1 + 0}{1.12}$$

$$P_1 = \text{Rs.168}$$

Net Income = Rs.2 crore

Investments budget = Rs.4 crore

Amount to be raised by issue of new shares = Rs.2 crore

$$\therefore \text{Number of shares to be issued} = \frac{2,00,00,000}{168} = 1,19,048 \text{ shares.}$$

58. Answer : (c)

[<TOP>](#)

Reason : $\text{EPS} = \text{PAT} / \text{No. of share}$

$$= 30/4 = 7.5$$

$$P/E = 7.2$$

$$\text{MPS} = 7.2 \times 7.5 = 54$$

Total market value is= (MPS) x No of shares

$$= 54 \times 4 = \text{Rs.216 crore.}$$

59. Answer : (c)

[<TOP>](#)

Reason : The traditional approach to dividend policy establishes a relationship between the market price and the dividends in the following manner:

$$P = m(D + E/3)$$

where, m is a multiplier, D is the Dividend Per Share (DPS) and E is the Earnings Per Share (EPS).

$$\text{Hence, } 17 = 3.4 (3 + E/3)$$

$$\text{So EPS} = \text{Rs.6.}$$

Hence, option (c) is the correct choice.

60. Answer : (c)

[<TOP>](#)

$$\text{Reason : Cash sales} = 21,00,000 \times 0.20 = \text{Rs. 4,20,000}$$

Collection of Credit sales (January 2005) = $20,50,000 \times 0.60 \times 0.8$ = Rs. 9,84,000
 Collection of Credit sales (December 2004) = $18,50,000 \times 0.40 \times 0.8$ = Rs. 5,92,000
 Sale of machine = Rs. 12,000
Total = Rs 20,08,000

61. Answer : (c)

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Reason : The possible levels of usage and their corresponding probabilities are computed in the following table:

Daily Usage	Rate	Lead Time		Possible levels of usage	
Units	Probability	Number of days	Probability	Possible Usage Levels = (Column 1 x Column 3)	Probability = (Column 2 x Column 4)
150	0.2	20	0.6	3,000	0.12
		35	0.4	5,250	0.08
360	0.5	20	0.6	7,200	0.30
		35	0.4	12,600	0.20
450	0.3	20	0.6	9,000	0.18
		35	0.4	15,750	0.12

Normal Usage during lead time = Average Daily Usage rate x Average Lead Time

Average Daily Usage rate = $150 \times 0.20 + 360 \times 0.50 + 450 \times 0.30 = 345$ units.

Average Lead Time = $20 \times 0.6 + 35 \times 0.4 = 26$ days

Normal Usage during lead time = $345 \times 26 = 8,970$ units.

Stock outs will occur, if the usage is above 8,970 units. From the table computed above, we can infer that stock-outs will occur when the usage levels are 12,600 (with probability 0.20); 9,000 (with probability 0.18) and 15,750 (with probability 0.12). The total probability of stockout is $0.2 + 0.18 + 0.12 = 50\%$. Hence, (c) is the answer.

62. Answer : (d)

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Reason : Loss that the company will incur, when the customer actually defaults = Cost of the unit
 = $(1 - 0.30) \times 5000 = \text{Rs. } 3,500$.

63. Answer : (e)

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Reason : The total cost of ordering and carrying

$$= \frac{\text{Annual usage} \times \text{Fixed cost per order}}{\text{Quantity per order}} + \frac{\text{Quantity per order} \times \% \text{ of carrying cost}}{2}$$

$$400,000 = \frac{U \times 1000}{20,000} + \frac{20,000 \times 100 \times 0.20}{2}$$

$$\text{or, } \frac{U \times 1000}{20,000} = 200,000$$

$$\text{or, } U = 40,00,000 = 40 \text{ lakh.}$$

64. Answer : (c)

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Reason: Sum of the net present values of projects 1 and 2 = $44.01 + 70.13 = \text{Rs. } 114.14$ million.

65. Answer : (a)

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Reason : $15000 - 10,000 - 1000 = \text{Rs. } 4000$

66. Answer : (c)

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Reason : Depreciation tax shield = $100,000 \times 0.35 = \text{Rs. } 35,000$.

67. Answer : (b)

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Reason : Positive payments float = $\text{Rs. } 15,000(5) = \text{Rs. } 75,000$.
 Negative collections float = $\text{Rs. } 17,000(3) = \text{Rs. } 51,000$.
 Net float = $\text{Rs. } 75,000 - \text{Rs. } 51,000 = \text{Rs. } 24,000$.

68. Answer : (d)

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Reason : The weighted average price is given by:

$$\frac{100 \times 9 + 50 \times 12 + 150 \times 15}{100 + 50 + 150} = \frac{3750}{300} = \text{Rs.12.50}$$

Hence, the value of the issue will be = Rs.12.50 × 100 = Rs.1,250.

69. Answer : (c)

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Reason : Capitalization rate for the company,

$$k_0 = k_d \frac{B}{B+S} + k_e \frac{S}{B+S}, \text{ where the notations are in their standard use}$$

$$k_0 = 14 \times \frac{80}{80+120} + 16 \times \frac{120}{80+120} = 15.2\%$$

$$\text{Further, } k_0 = \frac{\text{Net operating income}}{\text{Market value of firm}} = 0.152$$

$$\text{Net operating income} = 0.152 \times 200 = \text{Rs.30.4 lakh.}$$

70. Answer : (c)

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Reason : Raw material storage period

$$= \frac{\text{Average stock of raw materials}}{\text{Daily consumption of raw materials}}$$

$$\text{Daily consumption of raw materials} = \frac{6,51,000}{50} = \text{Rs.13,020}$$

$$\text{Annual consumption} = 13,020 \times 360 = \text{Rs.46,87,200}$$

$$\text{Annual consumption} = \text{Opening stock} + \text{purchases} - \text{closing stock}$$

$$\text{Average stock of raw materials} = \frac{\text{Opening} + \text{Closing}}{2}$$

$$\text{Where opening stock} = S \text{ and Closing stock} = 1.1 S$$

$$\text{Rs.6,51,000} = \frac{S + 1.1S}{2}$$

$$S = \text{Rs.6,20,000} = \text{Opening stock}$$

$$\text{Closing stock} = \text{Rs.6,82,000}$$

$$\text{Annual consumption} = 6,20,000 + P - 6,82,000$$

$$\text{Rs.46,87,200} = 6,20,000 + P - 6,82,000$$

$$P = \text{Rs.47,49,200}$$

$$\text{Average payment period} = \frac{\text{Average balance of creditors}}{\text{Purchases} / 360} = \frac{2,65,000}{47,49,200 / 360} = 20 \text{ days}$$

71. Answer : (c)

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$$\text{Reason : Expected average daily usage} = 600 \times 0.6 + 800 \times 0.4 = 680 \text{ units}$$

$$\text{Expected lead time} = 4 \times 0.3 + 6 \times 0.7 = 5.4 \text{ days}$$

$$\text{Hence, normal consumption during lead-time} = 680 \times 5.4 = 3,672 \text{ units.}$$

72. Answer : (c)

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Reason: Weighted Average Cost of Capital (WACC) using book value weights

Sum of book values of all sources of capital used is

$$200 + 400 + 150 + 250 = 1000$$

$$\therefore \text{Weight for equity capital } (w_e) = 200/1000 = 0.2$$

$$\text{Weight for reserves and surplus } (w_r) = 400/1000 = 0.4$$

$$\text{Weight for preference capital } (w_p) = 150/1000 = 0.15$$

$$\text{Weight for debenture capital } (w_d) = 250/1000 = 0.25$$

$$\therefore \text{WACC} = w_e k_e + w_r k_r + w_p k_p + w_d k_d$$

$$= 0.2 \times 19.25 + 0.4 \times 19.25 + 0.15 \times 12.19 + 0.25 \times 8.00$$

$$= 15.38\% \text{ (approx.)}$$

Weighted average cost of capital (WACC) using market value weights

Sum of market values of all sources of capital used = 400 + 159 + 241 = 800

Weight of equity capital = 400/800 = 0.5

Weight of preference capital = 159/800 = 0.19875 ≈ 0.20

Weight of debenture capital = 241/800 = 0.30125 ≈ 0.30

$$\therefore \text{WAC} = 0.5 \times 19.25 + 0.2 \times 12.19 + 0.3 \times 8.00 \\ = 14.46\% \text{ (approx.)}$$

The difference between the WACC using book value weights and market value weights = (15.38-14.46)%=0.92%

73. Answer : (b)

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Reason : The amount of raw materials consumed = Opening balance + Purchases during the year – Closing balance

$$= (180,000 + 1,192,000 - 212,000) = \text{Rs.}1,160,000$$

The average stock of work in process = (25,000 + 45,000)/2 = Rs.35,000

Annual cost of production = Opening work in process + Consumption of raw materials + Manufacturing expenses + Depreciation – Closing work in process

$$= 25,000 + 1,160,000 + 1,280,000 + 100,000 - 45,000 = \text{Rs.}2,520,000$$

So, the average daily cost of production = Rs.7,000

Hence, the average conversion period = 35,000/7,000 = 5 days.

74. Answer : (b)

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$$\begin{aligned} \text{Reason : The value of Que Ltd. (unlevered firm)} &= \text{EBIT}(1-t)/k \\ &= 4,00,000(1-0.4)/0.15 = \text{Rs.}16,00,000 \end{aligned}$$

$$\begin{aligned} \text{The value Zed Ltd. (levered firm)} &= \text{Value of unlevered firm} + (t \times \text{value of debt}) \\ &= 16,00,000 \times (0.40 \times 5,00,000) \\ &= \text{Rs.}18,00,000 \end{aligned}$$

$$\text{Total value} = \text{Rs.}16,00,000 + \text{Rs.}18,00,000 = \text{Rs.}34,00,000$$

75. Answer : (c)

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Reason : Present value of the costs associated with the machine will be

$$\text{Rs.}30,00,000 + \text{Rs.}250,000 \times \text{PVIFA}(10 \text{ percent, 4 years}) + \text{Rs.}300,000 \times \text{PVIFA}(10 \text{ percent, 6 years}) \times \text{PVIF}(10 \text{ percent, 4 years})$$

$$= \text{Rs.}30,00,000 + \text{Rs.}250,000 \times 3.170 + \text{Rs.}300,000 \times 4.355 \times 0.683 \\ = \text{Rs.}46,84,839.50$$

The required annual capital charge will be

$$\begin{aligned} &\frac{\text{Rs.}46,84,839.50}{\text{PVIFA}(10\%, 10 \text{ years})} = \frac{\text{Rs.}46,84,839.50}{6.145} = \text{Rs.}762,382 \text{ (approximately)} \end{aligned}$$

76. Answer : (d)

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$$\begin{aligned} \text{Reason : Realized yield} &= (1.12 \times 1.26 \times 1.4)^{1/3} - 1 \\ &= 1.2548 - 1 \\ &= 25.48\% \end{aligned}$$

77. Answer : (e)

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$$\text{Reason : Approximate percentage cost} = \frac{2}{98} \times \frac{365}{35} = 0.212828.$$

$$\begin{aligned} &\frac{159,621}{\text{Accounts payable}} = 0.212828 \\ \text{Accounts payable} &= 0.212828 = \text{Rs.}750,000. \end{aligned}$$

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