

## Question Paper

### Financial Management – II (142) : October 2005

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

1. Which of the following statements is **true**? [< Answer >](#)
- (a) Participating debentures are secured corporate debt securities
  - (b) Preference shares are identical to equity shares except in respect of voting rights
  - (c) A portion of partly convertible debenture is converted into equity after a specified period
  - (d) A secured premium note (SPN) is similar to a fully convertible debenture
  - (e) A debenture is a non-marketable legal contract.
- (1 mark)
2. If debentures are issued by a company, [< Answer >](#)
- I. Debenture redemption reserve should be at least 75 percent of the issue amount prior to the commencement of the redemption process.
  - II. Debenture redemption reserve must be created, if the maturity period is less than 18 months.
  - III. Call option on debentures allows the issuer to redeem the debentures at a certain price before maturity.
  - IV. Put option on debentures allows the issuer to redeem the debentures at a certain price before maturity.
- (a) Only (I) above
  - (b) Only (III) above
  - (c) Both (I) and (IV) above
  - (d) Both (II) and (III) above
  - (e) (II), (III) and (IV) above.
- (1 mark)
3. A company is in dire need for funds but lost the confidence of its shareholders due to the inadequate return on investments. Which of the following methods is suitable to that company to raise funds? [< Answer >](#)
- (a) Public issue
  - (b) Rights issue
  - (c) Euro issue
  - (d) Bought out deals
  - (e) Bonus issue.
- (1 mark)
4. Swantech Ltd. recently issued 1 right share for every 5 shares held. If the price of the stock at the time of the issue was Rs.60 per share and the price after the rights issue was Rs.58 per share, the subscription price of each right share was [< Answer >](#)
- (a) Rs.36
  - (b) Rs.40
  - (c) Rs.44
  - (d) Rs.46
  - (e) Rs.48.
- (1 mark)
5. The cum-rights price per share is Rs.380 and the theoretical value of the right is Rs.25. The subscription price at which the rights are issued is Rs.280 per share. The number of existing shares required for a rights share is [< Answer >](#)
- (a) 5
  - (b) 4
  - (c) 3
  - (d) 2
  - (e) 6.
- (1 mark)
6. Which of the following long-term sources of finance puts maximum restraint on managerial freedom? [< Answer >](#)
- (a) Retained earning
  - (b) Equity capital
  - (c) Preference capital
  - (d) Debenture capital
  - (e) Term loan.
- (1 mark)
7. Which of the following statements is/are **true** regarding Earnings Price Ratio Approach of cost of equity? [< Answer >](#)
- I. The ratio assumes that the growth in EPS is constant.
  - II. The results are accurate, when the dividend pay-out ratio is 100 percent.

III. The results are accurate, when the retained earnings are expected to earn a rate of return more than the cost of equity.

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

(1 mark)

8. Which of the following approaches supports the existence of a unique optimal capital structure?

[< Answer >](#)

- (a) Gordon Approach  
(b) Net operating Income Approach  
(c) Net Income Approach  
(d) M&M Approach  
(e) Realized yield Approach.

(1 mark)

9. In the calculation of the weighted average cost of capital, why are the weights based on the market values preferred?

[< Answer >](#)

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

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

(1 mark)

10. J&K National's balance sheet shows debt of Rs.380.80 million. The firm has 68 million outstanding shares, and the market price of each share is Rs.125 (Face Value Rs.100). It is considering to issue Rs.1250 million more debt and use the cash to repurchase its equity. Management estimates that as a result of this restructuring, the market price per share will jump to Rs.150. The value lost, if the firm doesn't take up the restructuring is

[< Answer >](#)

- (a) Rs. 0 million (b) Rs.1164 million (c) Rs.1315 million  
(d) Rs.1450 million (e) Rs.1465 million.

(2 marks)

11. Supreme Ltd. has recently made an issue of zero coupon bonds of Rs.60 lakh. The face value and maturity value of each bond was Rs.2,500. These bonds were issued at a discount of 30% to the face value. If the maturity period of the bonds is 5 years and taxes are ignored, what is the cost of the bonds to the company?

[< Answer >](#)

- (a) 5.18% (b) 7.39% (c) 9.00% (d) 21.00% (e) 30.00%.

(2 marks)

12. The cost of capital of Hitech Corporation is 18% and its' cost of debt is 12%. If the equity capitalization rate of the firm according to the net operating income approach is 21%, the debt-asset ratio of the firm is

[< Answer >](#)

- (a) 0.33 (b) 0.50 (c) 0.67 (d) 1.50 (e) 2.00.

(2 marks)

13. The Yass company has the following capital structure:

[< Answer >](#)

|                          |              |
|--------------------------|--------------|
| Equity Shares (2,00,000) | Rs.40,00,000 |
| 10% Preference Shares    | Rs.10,00,000 |
| 14% Debentures           | Rs.30,00,000 |

The current market price of the share is Rs.20. The expected dividend next year is Rs.2 per share, which will grow at 7% forever. If the company raises an additional Rs.20,00,000 debt by issuing 15%

debentures, the expected dividend increases to Rs.3 and the price of share falls to Rs.15. The growth rate remains the same. The weighted average cost of capital for the firm, assuming a tax rate of 30% is

- (a) 12.37%                      (b) 15.71%                      (c) 16.84%                      (d) 17.00%                      (e) 27.00%.

(2 marks)

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

- (a) 12.15%                      (b) 13.02%                      (c) 14.95%                      (d) 15.13%                      (e) 15.33%.

(2 marks)

15. Hardillia Enterprises Ltd. operates in the electrical spares industry. The income statement of the company is given below: [< Answer >](#)

|                                 | (Rs. in lakh) |
|---------------------------------|---------------|
| Sales                           | 100           |
| Cost of sales                   | 60            |
| Net operating income            | 40            |
| Interest                        | 12            |
| Earnings to equity shareholders | 28            |

The capitalization rate for debt is 10% and the overall capitalization rate for the entire firm is 12.5%. If other things remain the same, what is the maximum amount of funds that the firm can borrow in terms of market value, so that its' equity capitalization rate does not exceed 16%?

(Assume that the net operating income approach to capital structure is applicable.)

- (a) Rs.56.67 lakh                      (b) Rs.66.67 lakh                      (c) Rs.76.67 lakh  
(d) Rs.86.67 lakh                      (e) Rs.96.67 lakh.

(2 marks)

16. Which of the following are **true** regarding sound capital structure of the company? [< Answer >](#)

- I. Minimum use of leverage at minimum cost.
- II. Use of debt should be avoided, as it adds to financial risk of the company.
- III. The capital structure should not change over a period of time.
- IV. The capital structure should be determined within the debt capacity of the company.
- V. The company should emphasize more on debt than on equity capital.
- VI. The company should be able to raise or retire debt, whenever it needs.

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

(1 mark)

17. Which of the following statements best explains the fact that capital structure policy reflects a trade-off between risk and return? [< Answer >](#)

- (a) Increasing debt will increase stockholder risk but will decrease the expected rate of return  
(b) Increasing debt will increase stockholder risk and will also increase the expected rate of return  
(c) Increasing business risk will increase stockholder risk and will also increase the expected rate of return  
(d) Increasing business risk will increase stockholder risk but will decrease the expected rate of return  
(e) Increasing debt will decrease stockholders' risk but will increase the expected rate of return.

(1 mark)

18. A Ltd. and B Ltd. belong to the same risk class. They are identical in all respects except that A Ltd. has no debt in its' capital structure, where as B Ltd. is a levered firm. The total value of B Ltd. is more than the total value of A Ltd. because of leverage effect. In this situation, which of the following approaches suggests that an arbitrage process will start and the values of both the firms become equal? [< Answer >](#)

- (a) Net income approach  
(b) Net operating income approach  
(c) Miller and Modigliani approach

- (d) Traditional approach
- (e) Morton and Miller approach.

(1 mark)

19. If corporate taxes and personal taxes on debt and equity related income are levied, which of the following is/are **true** regarding the present value of the tax shield on debt? [< Answer >](#)

- I. Increases with increase in corporate tax rate.
- II. Increases always with increase in personal tax rate on debt related income.
- III. Increases or decreases for similar changes in personal tax rate depending on the relative rates of tax on debt and equity related personal income.

- (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)

20. "Shareholders' 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)

21. If the intrinsic value of a stock is greater than its market value, which of the following is a reasonable conclusion? [< Answer >](#)

- (a) The stock has a low level of risk
- (b) The stock offers a low dividend payout ratio
- (c) The market is undervaluing the stock
- (d) The market is overvaluing the stock
- (e) The market capitalization of the stock is very high.

(1 mark)

22. Protective covenants are [< Answer >](#)

- (a) To protect the interests of the employees
- (b) To protect the interests of the company
- (c) To protect the interests of the shareholders
- (d) To protect the interests of the bondholders
- (e) To protect the interests of the customers.

(1 mark)

23. Regardless of the type of asset being acquired, the appropriate discount rate that can be used for discounting the cash flow is [< Answer >](#)

- (a) The after-tax cost of debt
- (b) The required rate of return
- (c) The weighted average cost of capital
- (d) The cost of equity capital
- (e) The simple average cost of capital.

(1 mark)

24. In which of the following cases would it most likely be appropriate to use the WACC that relates to existing operations? [< Answer >](#)

- (a) A pizza delivery service is planning to expand by adding a sit-down pizza restaurant
- (b) A grocery store owner is considering adding a bakery to his store
- (c) A gas tank manufacturer is contemplating switching to food processing
- (d) A gas station owner is considering adding a convenience store
- (e) A manufacturer of garbage bags is considering expanding production capacity to meet increasing overseas demand.

(1 mark)

[< Answer >](#)

25. Which of the following will lead to a reduction in the debt equity ratio?

- (a) Successfully implementing a cost reduction program which will reduce cost of goods sold by 10% and following 0% dividend payout ratio
- (b) Paying outstanding bills to suppliers
- (c) Paying dividend to shareholders
- (d) Raising new long term funding from bank loans
- (e) Short term borrowing to finance additional fixed assets.

(1 mark)

[< Answer >](#)

26. Which of the following statements is/are **true** regarding stock dividend?

- I. It represents a distribution of additional shares to common shareholders.
  - II. It differs from a stock split largely in size.
  - III. It normally has no real value to the investor.
- (a) Only (I) above
  - (b) Only (II) above
  - (c) Only (III) above
  - (d) Both (I) and (II) above
  - (e) All (I), (II) and (III) above.

(1 mark)

[< Answer >](#)

27. Interim Systems has 1.5 million shares outstanding. This year, Interim will have operating income (EBIT) of Rs.18.2 million, interest expenses of Rs.2.4 million and depreciation expenses of Rs.3.1 million. What will the dividend per share be, if Interim's dividend payout ratio is 40%? Assume a marginal tax rate of 40%.

- (a) Rs.2.53
- (b) Rs.3.39
- (c) Rs.2.03
- (d) Rs.6.32
- (e) Rs.7.10.

(2 marks)

[< Answer >](#)

28. Zycad has operating earnings (EBIT) of Rs.13.6 million and annual interest expenses of Rs.1.5 million. The firm has a bond issue outstanding that requires the retirement of Rs.3 million (face value) of the issue each year at 10% premium. Assume that the marginal tax rate is 40%, the number of outstanding equity shares is 19,000,000 and earnings are the only source of funds that can be used to pay the dividend and retire the bonds. What is the maximum dividend per share that may be paid?

- (a) Re.0.16
- (b) Re.0.50
- (c) Re.0.66
- (d) Re.1.37
- (e) Rs.2.08.

(2 marks)

[< Answer >](#)

29. Janata Super market has average inventory of Rs.1crore. Its estimated annual sales are Rs.10 crore and the firm estimates its receivables collection period to be twice as long as its inventory conversion period. The firm pays its trade credit on time. The firm wants to decrease its net operating cycle by 10 days. It believes that it can reduce its average inventory to Rs.0.863 crore, while maintaining the same level of sales. Assuming a 365-day year, by how much must the firm also reduce its accounts receivable to meet its goal of a 10-day reduction in its net operating cycle?

- (a) Rs.1.137 crore
- (b) Rs.1.019 crore
- (c) Rs. 0.137 crore
- (d) Rs. 0.037 crore
- (e) Rs.0.019 crore.

(2 marks)

[< Answer >](#)

30. Which of the following statements is/are **true** regarding “under-trading”?

- I. The symptoms of under trading can be noticed from the lower turnover of working capital.
  - II. Precautionary measures for under trading can be taken by increasing the asset base.
  - III. Under-trading arises, when the volume of sales is much less in comparison to the amount of assets employed.
  - IV. Under trading can be restated as under capitalization.
- (a) Only (I) above
  - (b) Only (IV) above
  - (c) Both (I) and (III) above
  - (d) Both (II) and (III) above
  - (e) Both (III) and (IV) above.

(1 mark)

31. Which of the following is **true** with regard to the working capital financing policy of a company? [< Answer >](#)

- (a) Working capital margin is generally provided by the short term borrowing by a company
- (b) Negative net working capital implies that short term funds are used to finance long term assets
- (c) A company that follows conservative working capital management policy generally maintains a very low current ratio in comparison to its peers
- (d) Time value of money must be considered for the estimation of the working capital needs
- (e) A company that follows aggressive working capital management policy generally experiences lower profitability.

(1 mark)

32. Consider the following data about Max Mart Ltd.: [< Answer >](#)

|                                                | (Rs. in lakh) |
|------------------------------------------------|---------------|
| Opening Stock of Finished Goods                | 650           |
| Closing Stock of Finished Goods                | 1,050         |
| Cost of Production                             | 12,000        |
| Selling, Administration and Financial Expenses | 4,500         |
| Customs and Excise duties                      | 35,000        |

Assuming 360 days in a year, the finished goods storage period (in days) for Max Mart is

- (a) 2                      (b) 3                      (c) 4                      (d) 6                      (e) 8.

(2 marks)

33. Technical insolvency refers to [< Answer >](#)

- (a) The bankruptcy on the part of the firm
- (b) The inability of the firm to pay debts for the purchase of machinery
- (c) The inability of the firm to pay debts for the transfer of technology
- (d) The inability of the firm to pay debts to honor its' current liabilities
- (e) The obsolescence of manufacturing methods adopted by the firm.

(1 mark)

34. Which of the following factors is **not** most likely to affect the firm's level of investment in working capital? [< Answer >](#)

- (a) Efficiency of the firm in managing its fixed assets
- (b) Length of the operating cycle
- (c) Sales level
- (d) Credit policy
- (e) Inventory policy.

(1 mark)

35. Which of the following is a spontaneous source of financing current assets? [< Answer >](#)

- (a) Overdrafts                      (b) Provision for dividends  
(c) Letter of credit                      (d) Cash credits                      (e) Factoring.

(1 mark)

36. Other things remaining the same, which of the following will increase the cost of trade credit? [< Answer >](#)

- I. Increase in the rate of discount.  
II. Increase in the credit period.  
III. Increase in the discount period.
- (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)

37. XYZ Ltd. purchased raw materials from its suppliers on credit for 45 days. However, the supplier has offered a discount of 2% on early payment. If the cost associated with such credit terms is 21%, the [< Answer >](#)

discount period is approximately (assume 360 days in a year)

- (a) 8 days                      (b) 10 days                      (c) 13 days                      (d) 15 days                      (e) 26 days.

(1 mark)

38. Which of the following costs associated with inventories remain more or less constant irrespective of the size of the order? [< Answer >](#)

- (a) Material cost  
(b) Ordering cost  
(c) Carrying cost  
(d) Cost of funds tied up with inventory  
(e) Stock out cost.

(1 mark)

39. Which of the following statements is/are **true** with respect to the ABC system of inventory management? [< Answer >](#)

- I. The 'A' category items are those, which have the lowest rupee investment.  
II. The category 'C' consists of the largest number of items accounting for small rupee investment.  
III. Control of the 'C' items should be most intensive.

- (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)

40. The average daily usage rates of an inventory, lead time and their respective probabilities are as follows: [< Answer >](#)

| Daily Usage Rate<br>(in units) | Probability | Lead time<br>(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%.

(2 marks)

41. Ms Nikita, Materials Manager of a transformer manufacturing company procures annual requirement of the copper bolts from its supplier by four equal sized orders. The total number of copper bolts the company requires in a month is 83,333. The fixed cost per order is Rs.400. The market price of the each copper bolt is Rs.200. The carrying cost is 10% of the average inventory value. If Ms Nikita decides to change from existing system to EOQ system, how much annual monetary benefit this decision would bring to the company? [< Answer >](#)

- (a) Rs.1,26,491                      (b) Rs.12,50,800                      (c) Rs.23,75,109  
(d) Rs.25,01,600                      (e) Rs.27,28,091.

(2 marks)

42. VED analysis is for [< Answer >](#)

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

**(1 mark)**

43. If the material is priced at the value that is realizable at the time of issue, such pricing method is [< Answer >](#)  
referred to as
- (a) Standard price method
  - (b) Replacement method
  - (c) LIFO method
  - (d) Weighted average cost method
  - (e) FIFO method.

**(1 mark)**

- 44.** Scorpio Ltd. is on the final stage of granting credit to the Taj Hotels, which is likely to place a repeat order for the same number of television sets. The probability of payment in the first order is considered to be 0.85. In case the Taj Hotels pays for the first order, the probability of default for the repeat order is 0.05. The revenue from each order is Rs.10 lakh; where as, the cost of sales for each of these orders is Rs.8 lakh. The net expected benefit from this deal to Scorpio Ltd., if the repeat order is received would be
- (a) Rs.0.525 lakh                      (b) Rs.1.325 lakh            (c) Rs.1.585 lakh  
(d) Rs.1.775 lakh                      (e) Rs.2.675 lakh.

**(2 marks)**

45. High turnover of accounts receivable, which implies a very short days sales outstanding (DSO), could [≤ Answer >](#) indicate that the firm
- I. Has a lenient credit policy.
  - II. Offers small discounts.
  - III. Has a strong bargaining power over its' buyers.
- (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)**

46. "Capacity," which is one of the traditional "five C's" of credit analysis, refers to [< Answer >](#)
- (a) The general economic climate and its' effect on the potential customers' ability to pay
  - (b) The willingness of the potential customer to meet his financial obligations
  - (c) The efficiency 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)**

47. Shaw Oil Company presently sells 3,00,000 liters of its' product "Shawmin" in a year at a price of Rs.100 per liter. The variable cost is Rs.80 per liter. The company presently sells at credit terms of 'net 30' and its' average collection period is 40 days. Bad debt losses amount to 1 percent of sales and the cost of funds invested in the receivables is 12 percent. The Director of the company feels that the company should expand its sales volume by increasing the credit period to 40 days. As a result of increasing the credit period, the sales volume is expected to increase by 20 percent. The average collection period for the company may increase to 50 days, while bad debt losses on the new sales will be 5 percent (the percentage of bad debt losses on the existing sales will be unchanged). What will be overall impact on the profit of the company due to the change in credit period? (Ignore taxes and assume 360 days in a year)
- (a) Rs.6,20,000 (increase in profit)  
(b) Rs.7,20,000 (increase in profit)  
(c) Rs.8,20,000 (increase in profit)  
(d) Rs.7,20,000 (decrease in profit)  
(e) Rs.6,20,000 (decrease in profit).

**(2 marks)**

48. Which of the following is **not** a relevant factor in cash management? [< Answer >](#)



- (a) Prompt billing and mailing the same to the customers
- (b) Branch wise collection of receivables
- (c) Centralized purchases and payments to the suppliers
- (d) Availing of term loans to the maximum possible limit
- (e) Prompt depositing of the cheques received from customers in the bank.

(1 mark)

49. Chadwicks Corporation's budgeted sales for each month of a quarter are Rs.3,00,000. Forty percent of its customers pay in the first month and take 2 percent discount. The remaining sixty percent pay in the month following the sale and don't receive any discount. Purchases for next months' sales are constant each month at Rs.1,50,000. Other payments for wages, rent, and taxes are constant at Rs.70,000 per month. Construct a single month's cash budget with the information given. The average cash gain/loss during a typical month for Chadwick Corporation will be [< Answer >](#)

- (a) Rs.2,60,000
- (b) Rs.80,000
- (c) Rs.77,600
- (d) Rs.74,000
- (e) Rs.72,800.

(2 marks)

50. Which of the following criteria is/are generally least important in selecting marketable securities for inclusion in the firm's portfolio for cash management purposes? [< Answer >](#)

- (a) Length of maturity
- (b) Yield
- (c) Marketability
- (d) Default risk
- (e) Liquidity.

(1 mark)

51. Playing the float indicates [< Answer >](#)

- (a) Purchasing machinery and dishonouring the instrument after delivery of machinery
- (b) Converting a credit customer into a cash customer
- (c) Issuing cheques without balance in account
- (d) Expediting the implementation of the project to firm's convenience before sanction of loan
- (e) Manipulating books of accounts.

(1 mark)

52. The Midtown Company keeps excess cash on hand in case of an industrial accident in the manufacturing of its fertilizer. This is an example of a [< Answer >](#)

- (a) Compensating need for holding cash
- (b) Precautionary need for holding cash
- (c) Speculative need for holding cash
- (d) Deterministic need for holding cash
- (e) Transactions need for holding cash.

(1 mark)

53. Which of the following statements is/are **correct** for a project with a positive net present value? [< Answer >](#)

- I. Internal rate of return exceeds the cost of capital.
- II. Payback period will be more than the cut-off rate.
- III. Benefit cost ratio is greater than 1.

- (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)

54. The economic appraisal of projects assesses the costs and benefits arising out of the project, from the point of view of the [< Answer >](#)

- (a) Shareholders
- (b) Short-term lenders
- (c) Long-term lenders
- (d) Society as a whole
- (e) Suppliers.

(1 mark)

55. Which of the following is **false** with regard to the role of infrastructure in an economy? [< Answer >](#)
- (a) Poor infrastructure in an economy puts the existing enterprises in the economy at a disadvantage vis-à-vis their foreign competitors
  - (b) Poor infrastructure leads to time and cost overruns in projects
  - (c) Good infrastructure always ensures that all the projects are profitable
  - (d) Good infrastructure of an economy helps in attracting foreign direct investment into the economy
  - (e) Poor infrastructure forces the consumers to pay more for products than what they should have to pay.

(1 mark)

56. The incremental principle of measuring costs and benefits of a project does **not** consider [< Answer >](#)
- (a) The impact of the project on existing operations of the firm
  - (b) Existing overhead costs
  - (c) Opportunity costs
  - (d) Depreciation costs and taxes
  - (e) Interest on long-term debts.

(1 mark)

57. M/s. Y2K05 Industries Ltd. is considering a project which will entail the following revenues and expenses: [< Answer >](#)

(Rs. in lakh)

| Year                        | 1   | 2    | 3    | 4    | 5    |
|-----------------------------|-----|------|------|------|------|
| Profit before tax           | 12  | 15   | 18   | 18   | 16   |
| Depreciation                | 4   | 4    | 4    | 4    | 4    |
| Interest on short-term loan | 3   | 3    | 3    | 3    | 3    |
| Interest on term loan       | 1.2 | 0.96 | 0.72 | 0.48 | 0.24 |
| Repayment of term loan      | 2   | 2    | 2    | 2    | 2    |

The following additional information is provided for year 2:

Total expenses include allocated costs of Rs.1,00,000.

A machine, if not used for this project could earn an income of Rs.50,000.

If the tax rate is 40%, the net cash flow during year 2 is

- (a) Rs.11.876 lakh
- (b) Rs.14.860 lakh
- (c) Rs.15.876 lakh
- (d) Rs.16.476 lakh
- (e) Rs.17.676 lakh.

(2 marks)

58. Garima Herbal Products Limited is considering the purchase of a new mixing machine to replace an existing machine that has a book value of Rs.1,65,000 and can be sold for Rs.1,00,000. The estimated salvage value of the old machine in five years would be zero and it is depreciated on a straight-line basis. The new machine will contribute Rs.3,00,000 as annual cash savings over the old machine. The new machine has a life of five years. The cost of new machine is Rs.6,50,000 and can be sold for an expected amount of Rs.90,000 at the end of fifth year. Assuming straight-line method of depreciation and a 35% tax rate, in the fourth year of operation the net cash flows associated with this replacement decision would be [< Answer >](#)

- (a) Rs. 64,150
- (b) Rs. 93,550
- (c) Rs.1,32,650
- (d) Rs.2,22,650
- (e) Rs.3,12,650.

(2 marks)

59. Other things remaining the same, if the contribution margin for a one-year project of a firm increases from Rs.200 lakh to Rs.300 lakh, what will be its impact on the NPV of the project? (Assume the applicable tax rate is 35 percent and the cost of capital is 10 percent. Round off your answer to the nearest integer). [< Answer >](#)

- (a) Increase by Rs.59 lakh
- (b) Increase by Rs.65 lakh
- (c) Increase by Rs.70 lakh
- (d) Increase by Rs.75 lakh
- (e) Increase by Rs. 80 lakh.

(1 mark)

60. Little Giant is building a manufacturing plant that will require a cash outlay of Rs.3,00,000 for the initial purchase of a building, Rs.4,50,000 for remodeling in the first year and Rs.7,10,000 for new equipment in the second year. Its marginal tax rate is 35%. If the firms' cost of capital is 12 percent, what is the present value of the net investment at time 0? [< Answer >](#)
- (a) Rs.16,76,210      (b) Rs.14,94,480      (c) Rs.12,67,720  
(d) Rs.3,00,000      (e) Rs.2,00,000.
- (2 marks)**
61. Multiple internal rates of return can occur, when there is (are) [< Answer >](#)
- I. Large abandonment costs at the end of a project's life.  
II. A major shutdown and rebuilding of a facility sometime during its life.  
III. More than one sign change in the pattern of cash flows over a project's life.
- (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)**
62. The payback method is at best a crude measure of the risk of a project, because it fails to consider the \_\_\_\_\_ of a project's returns. [< Answer >](#)
- (a) Liquidity      (b) Variability      (c) Timing  
(d) Magnitude      (e) Profitability.
- (1 mark)**
63. In the case of mutually exclusive projects, NPV and PI are likely to yield conflicting decisions when [< Answer >](#)
- I. The projects require the same net investment.  
II. The projects are significantly different in size.  
III. There is a possibility of multiple rates of return.
- (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)**
64. Two firms are faced with the same potential investment. The project costs Rs.12 million and will result in cash flows of Rs.5 million per year for each of the next 3 years. Firm A has a discount rate of 8%, while Firm B's cost of capital is 16%. Based on NPV analysis, which of the following statements is true? [< Answer >](#)
- (a) Neither firm should invest in the project  
(b) Both firms should invest in the project  
(c) Only firm A should invest in the project  
(d) Only firm B should invest in the project  
(e) Firms with different costs of capital will always reject identical projects.
- (2 marks)**
65. Value for shareholders, in most companies, is largely derived from which of the following financial decision area? [< Answer >](#)
- (a) Financing decisions such as the debt/equity decision  
(b) Investment decisions focused on the liabilities side of the financial balance sheet  
(c) Investment decisions focused on the assets side of the financial balance sheet  
(d) Financing decisions related to dividends paid to shareholders  
(e) Liquidity decisions related to composition of current assets.
- (1 mark)**
66. In an equipment replacement analysis, incremental depreciation expense is considered in the cash flow analysis for its' effect upon [< Answer >](#)
- (a) The salvage value of the asset  
(b) The book value of the asset

- (c) The recovery of excess working capital
- (d) The post tax cash flows
- (e) The market value of the asset.

(1 mark)

67. Nirmal construction Ltd., is considering to purchase a machinery. Three companies came forward to [supply the machines](#), whose quotations are as given below.

|                                 | A      | B        | C      |
|---------------------------------|--------|----------|--------|
| Initial cost (Rs.)              | 75,000 | 1,00,000 | 50,000 |
| Maintenance cost per year (Rs.) | 5,000  | 7,000    | 4,000  |
| Life (Years)                    | 5      | 5        | 5      |
| Salvage value (Rs.)             | 20,000 | 24,000   | 30,000 |

If the cost of funds is 15%, the annual capital charge for project B and the priority of the projects for the Nirmal construction are respectively

- (a) B = Rs.24,409.31; A>B>C
- (b) B = Rs.14,468.37; B>C>A
- (c) B = Rs.17,000.80; A>C>B
- (d) B = Rs.83,000; C>B>A
- (e) B = Rs.33,274.46; C>A>B.

(2 marks)

68. American Biodyne (AB) is considering expanding into a new line of business. The expansion will require an investment of Rs.5,00,000 in new equipment. This equipment, which will cost another Rs.3,00,000 to install, will be depreciated on a straight-line basis over an 8-year period to an estimated salvage value of zero. If the project expansion is accepted, working capital will increase by Rs.1,00,000 immediately. Revenues for the first 3 years are forecasted at Rs.6,50,000 per year and at Rs.8,00,000 per year in years 4 to 8. Operating costs exclusive of depreciation are expected to be Rs.3,10,000 per year for 3 years and increase to Rs.4,00,000 per year for the following 5 years. If AB has a marginal tax rate of 40% and its required rate of return for the project under consideration is 16%, should the expansion be undertaken?

- (a) Yes, NPV = Rs.2,75,114
- (b) Yes, NPV = Rs.2,65,856
- (c) Yes, NPV = Rs.3,02,934
- (d) Yes, NPV = Rs.2,72,434
- (e) No, NPV = - Rs.2,54,611.

(2 marks)

69. Which of the following capital budgeting methods focuses on firms' liquidity?

- (a) Payback period
- (b) Net present value
- (c) Internal rate of return
- (d) Accounting rate of return
- (e) Annual capital charge.

(1 mark)

70. If a project has a cost of Rs.60,000 and a profitability index of 0.5,

- (a) Its net present value is Rs.30,000
- (b) Its internal rate of return is less than cost of capital
- (c) The present value of its' cash inflows is Rs.40,000
- (d) Its cash inflows are Rs.90,000
- (e) Its pay back period is infinite number of years.

(1 mark)

71. The value of a proposed capital budgeting project depends upon the

- I. Incremental cash flows produced.
- II. Accounting profits produced.
- III. The cost of capital.
- (a) Only (I) above
- (b) Only (III) above

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

(1 mark)

72. As per the records of Anus Industires Ltd. the following information is available:

[< Answer >](#)

|                      |              |
|----------------------|--------------|
| Profit before tax    | Rs.60 crore  |
| Tax rate             | 35%          |
| Return on equity     | 12.5%        |
| Market value of debt | Rs.400 crore |

The total value of the firm would be

- (a) Rs.530 crore
- (b) Rs.550 crore
- (c) Rs.680 crore
- (d) Rs.712 crore
- (e) Rs.810 crore.

(2 marks)

73. Home appliances, a reputed washing machine manufacturer, plans to manufacture 12,000 sets of washing machines for the next year. The cost components are as follows:

[< Answer >](#)

| Item                                           | Unit Cost (Rs.) |
|------------------------------------------------|-----------------|
| Raw Material                                   | 5,000           |
| Manufacturing Expenses                         | 2,000           |
| Selling, administrative and financial expenses | 1,000           |

The selling price per unit is Rs.10,000 and sales may be assumed to be uniform throughout the year, while the manufacturing expenses are expected to be incurred evenly throughout the month. The durations at various stages of the operating cycle are given below:

|                       |          |
|-----------------------|----------|
| Raw material stage    | 2 months |
| Work in process stage | 1 month  |
| Finished goods stage  | 1 month  |
| Debtors stage         | 3 months |

If the minimum cash balance required is Rs.20,00,000, what is the estimate for the working capital requirement of the company?

- (a) Rs.350 lakh
- (b) Rs.400 lakh
- (c) Rs.450 lakh
- (d) Rs.550 lakh
- (e) Rs.560 lakh.

(2 marks)

74. Bawa Construction's days sales outstanding are 50 days (on a 365-day basis) and its accounts receivable equal to Rs.100 million. If it's balance sheet shows inventory equal to Rs.125 million, the ratio of sales to inventory is

[< Answer >](#)

- (a) 2.75
- (b) 3.33
- (c) 4.25
- (d) 5.84
- (e) 7.25.

(2 marks)

75. If the cost of an investment is Rs.25,000 and it results in a net cash inflow of Rs.1,800 per annum forever. Assuming that the discount rate is 8%, the net benefit cost ratio of that investment is

[< Answer >](#)

- (a) - 0.11
- (b) - 0.10
- (c) - 0.09
- (d) 0.10
- (e) 0.11.

(2 marks)

## Suggested Answers

### Financial Management – II (142) : October 2005

1. Answer : (c)

[TOP](#)

Reason : Convertible debentures are convertible into equity of the issuer at a pre-specified time. If the debenture is a partly convertible debenture, a portion of the debenture is converted and the balance will be redeemed. Hence, (c) is correct. Participating debentures are unsecured corporate debt securities. Hence, (a) is incorrect. Preference shares have some features identical to equity and some identical to debentures. They differ from equity in the payment of dividends and have preference over equity in the event of liquidation. Hence (b) is incorrect. A secured premium note is a kind of NCD with an attached warrant. Hence, (d) is incorrect. A debenture is a marketable legal contract. Hence (e) is also incorrect and the answer is (c).

2. Answer : (b)

[TOP](#)

Reason : Debenture redemption reserve should be at least 50 percent of the issue amount prior to the commencement of the redemption process. Debenture redemption reserve is to be created, only if the maturity of the debentures is more than 18 months. Call option on debentures allows the issuer to redeem the debentures at a certain price before maturity, while put option on debentures allows the debenture holders to resell the debentures at a certain price before maturity.

3. Answer : (d)

[TOP](#)

Reason : As the company is in the dire need for funds, it must have to raise the same. In this case, it cannot go for public issue or rights issue, as it failed to provide satisfactory returns to the shareholders. The company should go for private placement or bought out deals, where the managers of the company may convince the sponsors regarding the past problems as well as the prospects of future business opportunities. It is very difficult to do so with the retail investors. Hence, the option (d) is the correct choice. Bonus issue does not bring additional funds. Euro issue is not possible, since the firm lost confidence of the public, as it involves access to international funds.

4. Answer : (e)

[TOP](#)

Reason : Ex-rights value of share =  $\frac{NP_0 + S}{N + 1}$

Where N,  $P_0$  and S have their usual meanings

Given:

N = 5

$P_0$  = Rs. 56 per share

Ex-rights price = Rs. 54 per share

$$\therefore 58 = \frac{5(60) + S}{5 + 1}$$

$$\text{or } S = 58(6) - 60(5)$$

$$\text{or } S = \text{Rs. 48 per share.}$$

5. Answer : (c)

[TOP](#)

Reason : The theoretical value of a right =  $\frac{P_0 - S}{N + 1}$

Where,  $P_0$  is the cum-rights price,

S is the subscription and N is the number of shares required for a rights share. Hence, 25=

$$\frac{380 - 280}{N + 1}$$

Therefore, N=3.

6. Answer : (e)

[TOP](#)

Reason : Financial institutions grant term loans and they put different conditions to avoid default risk. These conditions are stricter, when loan amount constitutes large portion of capital structure.

7. Answer : (b)

[TOP](#)

Reason : Earnings price ratio approach assumes that the EPS is constant. There are two parameters, which have to be analyzed to see if this approach will provide an accurate result or not. They are dividend pay-out ratio and the rate of return the firm is capable of earning on the retained earnings. The results are accurate in the following two scenarios. ≥

- a. When all the earnings are paid out as dividends. Here the rate of return the firm is capable of earning becomes irrelevant. Or,
- b. The dividend pay-out ratio is less than 100 percent and retained earnings are expected to earn a rate of return equal to the cost of equity.

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

8. Answer : (c)

Reason : According to the net income approach, the optimal capital structure would occur at a point, where the value of the firm is maximum and the overall cost of capital is minimum. Hence, option (c) is the correct choice. According to Net operating income approach, the overall cost of capital remains constant throughout all degrees of leverage. Hence, as per the approach there is no unique optimal capital structure. Gordon approach and Realized yield approach are models of dividend policy not of capital structure. As per M&M approach value of the firm is independent of capital structure. ≤  
TOP  
≥

9. Answer : (c)

Reason : The weights based on the book values are historical in nature and hence these do not reflect the cost of capital owing to the changes in the business and financial risk of the company. The reasons mentioned in the other options do not correctly reflect the advantages of choosing the weights based on the book values in comparison to the market values. ≤  
TOP  
≥

10. Answer : (d)

Reason : Current market value of the firm = Rs.(68×125+380.8) million  
= Rs.8,880.8 million  
Market value after restructuring = Rs.(58 × 150 + (380.8+1250) million  
= Rs.10330.8 million  
∴ Value lost if the firm doesn't go for restructuring = Rs.(10330.8 – 8880.8) million = Rs.1450 million ≤  
TOP  
≥

11. Answer : (b)

Reason : Face value = Rs. 2,500  
Issue price = 2,500 (1 – 0.30) = Rs.1,750  
If 'k' is the cost of the bonds to the company then –  
1750 (1 + k)<sup>5</sup> = 2,500 ≤  
TOP  
≥

$$\therefore k = \left( \frac{2,500}{1,750} \right)^{1/5} - 1 = 0.0739 \text{ i.e. } 7.39\%.$$

12. Answer : (a)

Reason : According to net operating income approach, ≤  
TOP  
≥

$$\begin{aligned} K_e &= k_o + (k_o - k_d) B/S \\ 0.21 &= 0.18 + (0.18 - 0.12) B/S \\ 0.03 &= (0.06) B/S \end{aligned}$$

$$B/S = 0.5 = \frac{\text{Market Value of Debt}}{\text{Market Value of Equity}}$$

$$\frac{S}{B} = 2$$

$$1 + \frac{S}{B} = 3$$

$$\text{(or)} \quad \frac{S+B}{B} = 3$$

$$\frac{B}{S+B} = 0.33$$

13. Answer : (b)

Reason : The capital structure of Yass after the issue of 15% debentures will be

|     | Source                             | Amount (in Rs.) |
|-----|------------------------------------|-----------------|
|     | Ordinary shares (2,00,000 × Rs.15) | 30,00,000       |
| 10% | Preference shares                  | 10,00,000       |
| 14% | Debentures                         | 30,00,000       |
| 15% | Debentures                         | 20,00,000       |
|     | Total                              | 90,00,000       |

Cost of equity prior to this change can be calculated as follows:

$$k_e = \frac{D_1}{P_o} + g = \frac{2}{20} + 0.07 = 17\%$$

Cost of equity after the change in capital structure

$$k_e = \frac{3}{15} + 0.07 = 27\%$$

$$WACC = w_e k_e + w_p k_p + w_d k_d (1-T)$$

$$\text{Substituting } (3/9) \times 0.27 + (1/9) \times 0.10 + (3/9) \times 0.098 + (2/9) \times 0.105 = 0.1571 = 15.71\%.$$

14. Answer : (b)

Reason : Cost of preference capital can be calculated from the following:

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

where symbols are in their standard use.

Substituting the values, we get

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

At  $k_p = 13\%$

$$RHS = 12 \times 6.462 + 110 \times 0.160 = 95.144$$

At  $k_p = 14\%$

$$RHS = 12 \times 6.142 + 110 \times 0.140 = 89.10$$

Interpolating, we get

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

15. Answer : (b)

$$\text{Reason : Market value of debt} = \frac{\text{Interest expense}}{\text{Debt capitalization rate}} = \frac{12}{0.10} = \text{Rs.120 lakh}$$

$$\text{Total market value of the firm} = \frac{\text{Net operating income}}{\text{Overall capitalization rate for the firm}}$$

$$= \frac{40}{0.125} = \text{Rs.320 lakh}$$

$$\text{Market value of equity} = \text{Total market value of the firm} - \text{Market value of debt} = 320 - 120 = \text{Rs.200 lakh.}$$

$$\text{Equity capitalization rate} = \frac{\text{Equity earnings}}{\text{Market value of equity}} = \frac{28}{200} = 0.14 \text{ i.e., } 14\%$$



According to the net operating income approach:  $k_e = k_0 + (k_0 - k_d) B/S$

Let the market value of debt after increase be B.

Market value of equity = Total market value of the firm – Market value of debt  
= 320 – B.

$k_e \leq 16\%$

$$\therefore 0.16 \geq 0.125 + (0.125 - 0.10) \frac{B}{(320 - B)}$$

$$\text{or } 0.035 \geq \frac{0.025B}{320 - B}$$

$$\text{or } 11.20 - 0.035B \geq 0.025B$$

$$\text{or } 11.20 \geq 0.06B$$

$$\text{or } B \leq 186.67 \text{ lakh}$$

$\therefore$  Increase in market value of debt due to borrowing = 186.67 – 120 = Rs.66.67 lakh

Hence, the firm can borrow a maximum amount of Rs.66.67 lakh in terms of market value.

16. Answer : (c)

Reason : The firm should make maximum use of leverage at minimum cost. Hence, alternative (I) is false.

Use of debt should be optimized to minimize financial risk of the company but it should not be avoided. Hence, alternative (II) is also false.

The capital structure should be flexible to change over a period of time as per the requirements. Hence, alternative (III) is also false.

The capital structure should be determined within the debt capacity of the company. Hence, alternative (IV) is true.

The company should bring balance between debt and equity and there is no such thing, as debt should be emphasized. Hence, alternative (V) is false.

The company should be able to raise or retire debt, whenever it needs. Hence, alternative (VI) is true.

Hence, option (c) is answer.

17. Answer : (b)

Reason : Even if revenue declines, a higher level of debt must still be paid off, as it increases risk to stock holders. On the other hand, debt can be used to fund expanded or modernized operation, allowing great potential revenues and profit for share holders, thereby increasing the expected rate of return.

18. Answer : (c)

Reason : According to the Miller and Modigliani approach, leverage in the capital structure has no significance, when firms are identical in all respects. In case they have of different values arbitrage process will commence and will continue till the values of both the firms become equal.

19. Answer : (d)

Reason : Present value of tax shield increases with increase in the corporate tax rate. It may increase or decrease based on the relative rates of the debt related and equity related personal income. Option (II) is not correct, as increase in  $t_{pd}$  will reduce the value of  $(1 - t_{pd})$  as well

$$\text{as } \left[ 1 - \frac{(1 - t_c)(1 - t_{ps})}{(1 - t_{pd})} \right] \times B$$

20. Answer : (d)

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

21. Answer : (c)

Reason : If the intrinsic value of a stock is greater than its' market value it means that the market is undervaluing the stock. All other alternatives are not the conclusion of the above. Hence, alternative(c) is correct.

22. Answer : (d) [TOP](#)  
Reason : Protective covenants are used to protect the interest of the bond holders. Hence, alternative (d) is correct.
23. Answer : (c) [TOP](#)  
Reason : The weighted average cost of capital is the required rate of return, or discount rate that is appropriate to use regardless of the use of the funds. Hence, alternative (c) is correct.
24. Answer : (e) [TOP](#)  
Reason : A manufacturer of garbage bags is considering expanding production capacity to meet increasing overseas demand. In this case only the expansion program is related to the existing operations and in all other above-mentioned cases the expansion program is not related to the existing line of operations. Hence, the answer is (e).
25. Answer : (a) [TOP](#)  
Reason : The debt equity ratio is defined as long term debt divided by total equity. By reducing the cost base, the firm is likely to make higher profits, and as the company retains all the profits in the form of retained earnings, this will add to equity and therefore reduce the debt to equity ratio. Paying outstanding bills to suppliers does not reduce the debt to equity ratio, as it relates to short term debt. Paying dividend to shareholders reduces equity and raising new funding from bank loans increases long term debt. Also short term borrowing has no impact on debt equity ratio. Hence alternative (a) is correct.
26. Answer : (e) [TOP](#)  
Reason : A stock dividend provides the investor with additional shares in the company, but does nothing to increase the value of the firm, it is only an accounting transaction, which involves transferring balance from reserve and surplus account to share capital account. Hence, it does not involve any cash flow and does not change the real value to the investors.
27. Answer : (a) [TOP](#)  
Reason : Option (a) is the answer.  
Dividend per share =  $[(Rs.18.2 - Rs.2.4)(0.6)(0.4)]/1.5 = Rs.2.528$  or Rs.2.53
28. Answer : (e) [TOP](#)  
Reason : Option (e) is the correct answer.  
Earnings available for dividends  $(Rs.13.6 - Rs.1.5)(0.6) - Rs.3 (1.1) = Rs.3.96$  million  
Dividend per share =  $R\$3.96/1.9 = Rs.2.084$ .
29. Answer : (c) [TOP](#)  
Reason : Inventory Conversion Period (ICP) =  $365 \text{ days}/(Rs.10 \text{ crore}/Rs.1 \text{ crore}) = 36.5 \text{ days}$ .  
Receivables collection period =  $2.0 \times ICP = 2 \times 36.5 = 73 \text{ days}$ .  
Receivables collection period =  $73 = \text{Accounts receivable}/\text{Sales per day}$   
Sales per day =  $R\$10 \text{ crore}/365 = Rs.0.0274 \text{ crore}$   
Accounts receivable =  $73 \times Rs.0.0274 = Rs.2 \text{ crore}$ .  
New inventory conversion period =  $365/(Rs.10 \text{ crore}/Rs.0.863 \text{ crore}) = 365/11.5875 = 31.5 \text{ days}$ .  
Net change in inventory conversion period =  $-5 \text{ days}$ .  
Total reduction in net operating cycle required =  $10 \text{ days}$ .  
Reduction in receivables collection period needed =  $10 - 5 = 5 \text{ days}$ .  
New receivables collection period required =  $73 - 5 = 68 \text{ days}$ .  
Receivables collection period =  $68 = [(\text{Accounts receivable})/(Rs.10 \text{ crore}/365)]$   
Accounts Receivable =  $68 \times Rs.0.0274 = Rs.1.863$ .  
Old Accounts Receivable =  $R\$2 \text{ crore}$   
New Accounts Receivable =  $R\$1.863 \text{ crore}$   
Reduction required in Accounts Receivable =  $R\$2 - Rs.1.863 = Rs.0.137 \text{ crore}$ .
30. Answer : (c) [TOP](#)  
Reason : Statement (I) is true because in a situation of undertrading the turnover of working capital is low. Statement (II) is not true because increasing the asset base in a situation of undertrading will only aggravate the problem.

Statement (III) is true because in a situation of undertrading the volume of sales is much less in comparison to the assets employed.

Statement (IV) is not true because in a situation of undertrading the capital employed is higher than the normal level, given the level of sales. Hence, undertrading is a case of overcapitalization and not undercapitalization.

31. Answer : (b)

Reason : A firm generally employs long-term sources of funds to finance its working capital margin that is the difference between the current assets and current liabilities. A negative net working capital implies that current assets are less than current liabilities. That signifies the usage of the short-term funds for financing the long-term assets. A company that follows a conservative working management policy generally maintains a very high current ratio and low profitability in comparison to its peers while the opposite thing occurs in case of aggressive working capital management policy.

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32. Answer : (d)

Reason : Finished goods storage period =  $\frac{\text{Average stock of finished goods}}{\text{Average daily cost of goods sold}}$

[<](#)  
[TOP](#)  
[>](#)

$$\begin{aligned} \text{Average stock of Finished goods} &= \text{Rs. } \frac{(650 + 1050) \text{ lakh}}{2} \\ &= \text{Rs. } 850 \text{ lakh} \end{aligned}$$

$$\begin{aligned} \text{Average daily cost of goods sold} &= \text{Rs. } \frac{650 + 12,000 + 4,500 + 35,000 - 1050}{360} \\ &= \text{Rs. } \frac{51,100}{360} \text{ lakh} \\ &= \text{Rs. } 141.94 \text{ lakh} \end{aligned}$$

$$\text{Finished goods storage period} = \frac{850}{141.94} = 5.99 \text{ days} \approx 6 \text{ days}$$

33. Answer : (d)

Reason : Technical insolvency refers to the inability of the firm to honor its current liabilities.

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34. Answer : (a)

Reason : Option (a) is the correct answer. The size and nature of a firm's investment in current assets is a function of the length of the operating cycle, the sales level, credit policies and inventory policies but not the management of fixed assets.

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35. Answer : (b)

Reason : Spontaneous sources of finance are the one which arise in the normal course of business and they do not entail any explicit cost to the company e.g. accrued expenses, provisions and trade credit etc. (a) and (d) are not correct as though they are used as short term source they have cost attached with them. Further (c) and (e) are not correct, as letter of credit and factoring are not spontaneous sources of finance.

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36. Answer : (e)

$$\text{Reason : Cost of trade credit} = \frac{\text{Rate of discount}}{1 - \text{Rate of discount}} \times \frac{360}{\text{Credit Period} - \text{discount period}}$$

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Other things remaining the same, following factors will increase the cost of trade credit:

- Increase in the rate of discount. For example: "1/10 Net 30" will have a lesser cost of trade credit compared to "2/10 Net 30".
- Increase in the discount period. For Example: "1/10 Net 30" will have a lesser cost of trade credit compared to "1/15 Net 30".
- Decrease in the credit period. For example "1/10 Net 30" will have a greater cost of trade credit compared to "1/10 Net 45".

Hence (e) is the required answer.

37. Answer : (b)

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Reason : Cost of Trade Credit

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$$= \frac{\text{Discount rate}}{1 - \text{Discount rate}} \times \frac{360}{(\text{Credit Period} - \text{Discount Period})}$$

$$0.21 = \frac{0.02}{1 - 0.02} \times \frac{360}{(45 - x)}$$

$$\frac{0.21}{0.02} = \frac{360}{(45 - x)}$$

$$x = 10.01 \Rightarrow 10 \text{ days}$$

Hence option (b) is the correct choice.

38. Answer : (b)

Reason : Ordering costs are independent of the size of the order; hence they remain more or less constant irrespective of the size of the order.

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39. Answer : (b)

Reason : The ABC system segregates the inventory of a firm into three groups: A, B and C.

The C group consists of a large number of items accounting for a small rupee investment. Hence, (II) is true. The items under the group A have the largest rupee investment. Hence, statement (I) is incorrect. Control of A items should be most intensive. Hence, (III) is incorrect and answer is (b).

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40. Answer : (c)

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

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| Daily Usage | Rate        | Lead Time      |             | Possible levels of usage                        |                                       |
|-------------|-------------|----------------|-------------|-------------------------------------------------|---------------------------------------|
| Units       | Probability | Number of days | Probability | Possible Usage Levels<br>=(Column 1 x Column 3) | Probability<br>=(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.

41. Answer : (c)

Reason : Existing cost of inventory

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$$= 4 \times 400 + \frac{2,50,000}{2} \times 200 \times 0.10$$

$$= 1,600 + 25,00,000 = 25,01,600$$

$$= \text{Annual usage} = 83,333 \times 12 = 10,00,000 \text{ (approx)}$$

$$\text{EOQ} = \sqrt{\frac{2UP}{C}} = \sqrt{\frac{2 \times 10,00,000 \times 400}{200 \times 0.1}} = 6,324.55$$

Cost of inventory in the EOQ system

$$= \frac{10,00,000}{6,324.55} \times 400 + \frac{6,324.55}{2} \times 200 \times 0.1$$

$$= 63,245.60 + 63,245.5$$

$$= 1,26,491.1 = 1,26,491$$

$$\therefore \text{Benefit} = 25,01,600 - 1,26,491 = \text{Rs.} 23,75,109.$$

42. Answer : (a)

Reason : VED analysis is for monitoring and controlling of stores and spare parts by classifying them into 3 categories viz., vital, essential and desirable.

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43. Answer : (b)

Reason : If the material is priced at the value that is realizable at the time of issue, such pricing method is called replacement method. Answer is (b).

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Under FIFO method, the pricing will be based on the cost of material that was obtained first.

Under LIFO method, the pricing will be based on the material that has been purchased recently.

Under standard price method, the pricing is based on predetermined price.

Under weighted average cost method, pricing is based on weighted average basis.

44. Answer : (d)

Reason : The net expected benefit on the initial order =  $0.85 \times (10 - 8) + 0.15(-8) = \text{Rs.} 0.50 \text{ lakh}$

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The net expected benefit from the repeat order is  $0.85[0.95 \times (10 - 8) + 0.05(-8)] = \text{Rs.} 1.275 \text{ lakh}$

So, total net expected benefit =  $(0.5 + 1.275) \text{ or Rs.} 1.775 \text{ lakh.}$

45. Answer : (c)

Reason : Having high turnover of accounts receivable and short days sales outstanding indicate that the firm has strong bargaining power on its buyers. The more the bargaining power of seller, the less will be credit period and the more stringent will be credit terms. Hence, these will result in lower days sales outstanding. Hence, statement (III) is correct.

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46. Answer : (d)

Reason : 'Capacity' in credit analysis refers to the ability of the potential customer to meet his financial obligations.

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47. Answer : (b)

Reason : Increase in contribution =  $3,00,000 \times 20 \text{ percent} \times \text{Rs.} 20 = \text{Rs.} 12,00,000$

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Additional investment in the receivables due to the increase in credit period =

$$= (ACP_N - ACP_o) \times \frac{S_o}{360} + V.ACP_N \times \frac{\Delta S}{360}$$

$$= (50 - 40) \times \frac{3,00,000 \times 100}{360} + 0.8 \times 50 \times \frac{60,000}{360} \times 100$$

$$= \text{Rs.} 15,00,000$$

So, increase in the cost of funds invested in the receivables =  $\text{Rs.} 15,00,000 \times 0.12 = \text{Rs.} 1,80,000$

Increase in the cost of bad debts =  $\text{Rs.} 100 \times 3,00,000 \times 20\% \times 5\% = \text{Rs.} 3,00,000.$

Hence, the profit of the company will increase by

$\text{Rs.} 12,00,000 - 1,80,000 - 3,00,000 = \text{Rs.} 7,20,000.$

48. Answer : (d)

Reason : Whether or not to avail of term loans and to what extent is related with the borrowing policy of a firm; it is not related with cash management.

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49. Answer : (c)

Reason : Annual budgeted sales =  $\text{Rs.} 3,00,000$

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(in Rs.)

|                                  |                 |                                                |
|----------------------------------|-----------------|------------------------------------------------|
| Collections (same month's sales) | 1,17,600        | $(0.98 \times 0.40 \times \text{Rs.} 300,000)$ |
| Collections (last month's sales) | <u>1,80,000</u> | $(1.00 \times 0.60 \times \text{Rs.} 300,000)$ |
| Total collections                | <u>2,97,600</u> |                                                |
| Purchases payments               | 1,50,000        |                                                |
| Other payments                   | <u>70,000</u>   |                                                |

Total payments      2,20,000  
 Net cash gain (loss) Rs. 77,600

50. Answer : (b)

Reason : The reason for holding marketable securities is to keep idle cash in the form of cash equivalents so as to earn some return as well as to have the facility of conversion into cash as and when desired. Given this, length of maturity, default risk, marketability and liquidity are more important than the return earned on these securities.

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51. Answer : (c)

Reason : Playing the float indicates issuing cheques without balance in account.

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52. Answer : (b)

Reason : Option (b) is the correct answer.

Keeping excess cash in hand in case of an industrial accident is a precautionary Motive - the need to hold cash as a safety margin to act as a financial reserve.

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53. Answer : (d)

Reason : IRR is the rate at which NPV of the project is zero. If NPV is positive then it implies that IRR exceeds the cost of capital of the project.

Hence statement (I) is correct.

A positive NPV indicates that the present value of inflows is greater than the present value of outflows. It does not give any relevant information about the pay back period being more than the cut-off rate.

Hence statement (II) is incorrect.

$$BCR = \frac{\text{Present value of inflows}}{\text{Initial investment}}$$

Therefore a positive NPV indicates that the present value of inflows is greater than the initial investment, in other words it implies that  $BCR > 1$ .

Hence option (d) is the answer.

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54. Answer : (d)

Reason : The economic appraisal of projects is an exercise to assess the costs and benefits entailing from the project, from the point of view of the society as a whole (d) and not any particular entity like shareholders (a), short-term lenders (b), long-term lenders (c) or suppliers (e).

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55. Answer : (c)

Reason : Poor infrastructure in an economy puts the domestic enterprises at a disadvantage vis-à-vis their foreign competitors (a) and leads to time and cost over runs of the projects (b). Good infrastructure help in attracting FDIs (d). However, good infrastructure will not necessarily ensure that all projects are profitable; there are other factors also. Hence (c) is incorrect. Poor infrastructure forces the consumers to pay more than what they should have to pay.

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56. Answer : (b)

Reason : As per the incremental principle of measuring costs and benefits of a project, the impact of the project on existing operations of the firm is carefully analyzed. The opportunity costs in the form of foregone sales or savings in expenses are considered. The depreciation costs or the interest on long term debts are also taken into account. However, the existing overhead costs are neglected.

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57. Answer : (a)

Reason : According to principle of costs and benefits of a project, allocated costs should be ignored and opportunity costs should be included. In the given case, allocated costs of Rs.1,00,000 should be added to PBT and Rs.50,000 should be deducted.

∴ NCF during year 2

$$= (PBT + 1 - 0.5) 0.6 + \text{Depreciation} + \text{Interest on TL} (1 - t) - \text{TL repayment}$$

$$= (15 + 1 - 0.5) 0.6 + 4 + 0.96 \times 0.6 - 2 = \text{Rs.11.876 lakh.}$$

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58. Answer : (d)

Reason :

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|  |                                          |
|--|------------------------------------------|
|  | Cash flows in 4 <sup>th</sup> year (Rs.) |
|--|------------------------------------------|

|                               |          |
|-------------------------------|----------|
| Net investment in new machine | -        |
| Saving in costs               | 3,00,000 |
| Incremental Depreciation      | 79,000   |
| Pre-tax profit                | 2,21,000 |
| Taxes                         | 77,350   |
| Post-tax profit               | 1,43,650 |
| Initial Cash flow             | -        |
| Operating cash flow           | 2,22,650 |
| Terminal cash flow            | -        |
| Net cash flow                 | 2,22,650 |

So, the net cash flow during fourth year is Rs. 2,22,650.

59. Answer : (a)

Reason : Contribution margin increases by Rs.100 lakh and hence the corresponding amount of net cash flow will also go up by  $\text{Rs.100 lakh} \times (1 - 0.35) = \text{Rs.65 lakh}$ .

Hence, the NPV of the project will also increase by  $\frac{\text{Rs.65}}{1.10} = \text{Rs.59.09 lakh or Rs.59 lakh}$ .

60. Answer : (c)

Reason : Net investment calculation:

Present value of net investment =  $\text{Rs.3,00,000} + \text{Rs.4,50,000} (0.893) + \text{Rs.7,10,000}(0.797) = \text{Rs.12,67,720}$

61. Answer : (e)

Reason : The internal rate of return is uniquely defined only for a project, whose cash flow pattern is characterized by cash outflows followed by cash inflows (such projects are called simple investments). If the cash flow stream has one or more cash outflows interspersed with cash inflows, there can be multiple internal rates of return. Statement (I) indicates the cash outflow at the end of the project's life too, which causes change in the sign of cash flows. Statement (II) also causes cash out flow during the project's life. Hence, under all alternatives mentioned above, multiple internal rate of return can occur. So, (e) is answer.

62. Answer : (b)

Reason : The payback method is at best a crude measure of the risk of a project because it fails to consider the variability of a project's returns.

63. Answer : (b)

Reason : In the case of mutually exclusive projects, NPV and PI are likely to yield conflicting decisions when the projects are significantly different in size.

64. Answer : (c)

Reason : Project A =  $5 \times \text{PVIFA} (8\%, 3) - 12 \text{ million} = 5 \times 2.577 - 12 = \text{Rs.0.885 million}$

Project B =  $5 \times \text{PVIFA} (16\%, 3) - 12 \text{ million} = 5 \times 2.246 - 12 = - \text{Rs. 0.77 million}$

Hence, only firm A should invest in the project.

65. Answer : (c)

Reason : Value for shareholders, in most companies, is largely derived from investment decisions focused on the asset side of the financial balance sheet.

66. Answer : (d)

Reason : In an equipment replacement analysis, incremental depreciation expense is considered in the cash flow analysis for its' effect upon the post tax cash flows.

67. Answer : (e)

Reason :

| Project Name | Initial Cost | Maintenance | PVIFA (15,5) | PV of Maintenance | Salvage value | PVIF (15,5) | PV of S.V. (6x7) | Total cash out flow | Annual Capital |
|--------------|--------------|-------------|--------------|-------------------|---------------|-------------|------------------|---------------------|----------------|
| 1            | 2            | 3           | 4            | 5 = (3x4)         | 6             | 7           | 8 = (6x7)        | 9 = 2+5-8           | 10 = (9/4)     |

|   |        |      |       |              |        |       |              |              |               |
|---|--------|------|-------|--------------|--------|-------|--------------|--------------|---------------|
| 1 | 2      | 3    | 4     | 5<br>= (3x4) | 6      | 7     | 8<br>= (6x7) | 9<br>= 2+5-8 | 10<br>= (9/4) |
| A | 75,000 | 5000 | 3.352 | 16,760       | 20,000 | 0.497 | 9940         | 81820        | 24,409.31     |
| B | 100000 | 7000 | 3.352 | 23,464       | 24,000 | 0.497 | 11928        | 111536       | 33,274.46     |
| C | 50,000 | 4000 | 3.352 | 13,408       | 30,000 | 0.497 | 14910        | 48498        | 14,468.37     |

As  $B > A > C$ .

Therefore, the priority for organization is  $C > A > B$ . Hence (e) is the correct answer.

68. Answer : (b)

Reason : Net investment = Rs.5,00,000 + Rs.3,00,000 + Rs.1,00,000 = Rs.9,00,000

Net cash flow through years 1-3 = (Rs.6,50,000 - Rs.3,10,000 - Rs.1,00,000)  
(1 - 0.4) + Rs.1,00,000 = Rs.2,44,000

Net cash flows through years 4-7 = (Rs.8,00,000 - Rs.4,00,000 - Rs.1,00,000)(1 - 0.4) +  
Rs.1,00,000 = Rs.2,80,000

Net cash flows in year 8 = Rs.2,80,000 + Rs.1,00,000 = Rs.3,80,000

Net present value = Rs.-9,00,000 + Rs.2,44,000/1.16 + Rs.2,44,000/1.16<sup>2</sup> + Rs.2,44,000/1.16<sup>3</sup> +  
Rs.2,80,000/1.16<sup>4</sup> + Rs.2,80,000/1.16<sup>5</sup> + Rs.2,80,000/1.16<sup>6</sup> + Rs.2,80,000/1.16<sup>7</sup> +  
Rs.3,80,000/1.16<sup>8</sup> = Rs.2,65,856.

69. Answer : (a)

Reason : Payback period method focuses on firms' liquidity.

70. Answer : (b)

Reason : Projects' profitability index = Present value of cash inflows/ Present value of cash outflows

0.5 = X/60,000

X = Rs.30,000

Net present value = Present value of cash inflows - Present value of cash outflows

= Rs.30,000 - Rs.60,000 = -Rs.30,000.

Since, net present value is negative, internal rate of return is less than cost of capital. Hence, alternative (b) answer.

71. Answer : (d)

Reason : The value of a proposed capital budgeting project depends upon the incremental cash flows produced and the cost of capital.

72. Answer : (d)

Reason : PBT = Rs.60 crore

Tax = 35%

PAT = 60(1 - 0.35) = Rs.39 crore

ROE = 12.5%

Market value of equity = 39/0.125 = Rs.312 crore.

Total value of firm = MV of equity + MV of debt

= Rs.(312 + 400) = Rs.712 crore.

73. Answer: (e)

Reason:

(in Rs. Lakh)

| Input                       | Period<br>(months) | Raw<br>materials | Work in<br>Process | Finished<br>Goods | Debtors | Total |
|-----------------------------|--------------------|------------------|--------------------|-------------------|---------|-------|
| Raw Material                |                    |                  |                    |                   |         |       |
| In raw material<br>In W I P | 2                  | 100              |                    |                   |         |       |
| In finished                 |                    |                  |                    | 24                |         |       |
|                             | 1                  |                  | 50                 |                   |         |       |



|                                                |     |     |    |    |     |     |
|------------------------------------------------|-----|-----|----|----|-----|-----|
| Goods                                          | 3   |     |    |    | 150 | 350 |
| In debtors                                     |     |     |    |    |     |     |
| Manufacturing Expenses                         |     |     |    |    |     |     |
| In WIP                                         | 1/2 |     | 10 |    |     |     |
| In finished goods                              | 1   |     |    | 20 |     |     |
| In debtors                                     | 3   |     |    |    | 60  | 90  |
| Selling, Administrative and financial expenses |     |     |    |    |     |     |
| In finished goods                              | 1   |     |    | 10 |     |     |
| In debtors                                     | 3   |     |    |    | 30  | 40  |
| Profit                                         |     |     |    |    |     |     |
| In debtors                                     | 3   |     |    |    | 60  | 60  |
| Total                                          |     | 100 | 60 | 80 | 300 | 540 |

Hence, the amount of working capital requirement is Rs.540 lakh + Rs.20 lakh = Rs.560 lakh

74. Answer: (d)

Reason: Step 1: Sales level

$$DSO = \frac{\text{Receivables}}{\text{Sales}/365}$$

$$50 = \frac{\text{Rs.10,00,00,000}}{\text{Sales}/365}$$

$$\text{Rs.10,00,00,000} = \frac{50(\text{Sales})}{365}$$

$$\text{Rs.36,50,00,00,000} = 50(\text{Sales})$$

$$\text{Rs.73,00,00,000} = \text{Sales.}$$

Step 2: Inventory turnover ratio = Sales/Inventory

$$\text{Inventory turnover} = \frac{\text{Rs.73,00,00,000}}{\text{Rs.12,50,00,000}}$$

$$\text{Inventory turnover} = 5.84.$$

75. Answer: (b)

$$\text{Reason: The present value of the cash flows will be} = \frac{\text{Rs.1,800}}{0.08} = \text{Rs.22,500}$$

$$\text{NPV of that investment} = \text{Rs.22,500} - \text{Rs.25,000} = - \text{Rs.2500.}$$

$$\text{Hence, the net benefit cost ratio for that investment} = - \frac{\text{Rs.2,500}}{\text{Rs.25,000}} = -0.1 = -0.10$$

So, the option (b) is the correct choice.

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