

Question Paper

Financial Management – II (142) : April 2004

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

1. Which of the following is a feature of secured premium notes (SPN)? [< Answer >](#)
- (a) It is a kind of non-convertible debenture with an attached warrant
 - (b) It is convertible debenture with options
 - (c) The warrants attached to the SPN gives the holder the right to apply for one preference share
 - (d) It is partly convertible debenture with attached warrants
 - (e) It is an example of participating preference shares.
- (1 mark)
2. Which of the following is **false** regarding private placement of securities? [< Answer >](#)
- (a) It involves selling out a significant portion of securities to an investor or a group of investors
 - (b) Private placement is made with a view to make a public issue within an agreed time frame
 - (c) It involves fewer procedural difficulties
 - (d) It enables the companies to have faster access to funds
 - (e) Private placement is not restricted to equity only.
- (1 mark)
3. If the net present value (NPV) of an investment is positive, the impact on Benefit Cost Ratio (BCR), Net Benefit Cost Ratio (NBCR), Internal Rate of Return (IRR) and cost of capital (K) would be [< Answer >](#)
- (a) $IRR = K$ and $NBCR > 1$
 - (b) $IRR = K$ and $BCR > 1$
 - (c) $IRR > K$ and $NBCR > 1$
 - (d) $IRR > K$ and $BCR > 1$
 - (e) $NBCR > BCR$ and $K > IRR$.
- (1 mark)
4. Which of the following is a feature of preference shares? [< Answer >](#)
- (a) Preference shareholders have preference over equity shareholders to the post-tax earnings in the form of dividends
 - (b) Preference-dividend is tax deductible
 - (c) Voting rights can be given to the preference shareholders in the case of cumulative preference shares
 - (d) Preference share holders shall invariably participate in the surplus
 - (e) Preference shares are always redeemable.
- (1 mark)
5. The term agency costs in the context of capital structure means [< Answer >](#)
- (a) The commission payable by a company to its purchasing agents
 - (b) The commission payable by a company to its selling agents
 - (c) The expenses incurred in distribution of the products of the company
 - (d) The cost on account of restrictive covenants imposed on a company by its lenders
 - (e) The dividends paid by a company to its shareholders.
- (1 mark)
6. When high degree of uncertainty is associated with the future cash flows of a firm [< Answer >](#)
- (a) The firm should invest all the cash in equity shares
 - (b) The firm should maintain adequate cash balance or have an overdraft arrangement with a bank
 - (c) The firm should postpone the loan repayments which fall due after the current period
 - (d) The firm should make less cash sales
 - (e) The firm should maintain huge cash balance and have an overdraft arrangement with a bank.
- (1 mark)
7. Which of the following statements is **false** as per the Net Operating Income Approach? [< Answer >](#)
- (a) Overall capitalization rate remains constant for all degrees of leverage
 - (b) Cost of equity remains constant for all degrees of leverage

- (c) Cost of equity is a constant linear function of the debt-equity ratio
- (d) Cost of debt remains constant for all degrees of leverage
- (e) The breakdown in debt and equity is irrelevant as the market capitalizes the value of the firm.

(1 mark)

[< Answer >](#)

8. Which of the following is **true** with regard to cumulative preference shares?

- (a) The rate of dividend is variable
- (b) The issuer can purchase the preference shares at a time before maturity
- (c) All unpaid dividends are carried forward and are payable in later years
- (d) The preference shares are convertible into equity shares
- (e) Preference shareholders have the voting rights.

(1 mark)

[< Answer >](#)

9. Under which of the following financing arrangements do the banks assume the risk of default while the supplier provides the credit?

- (a) Letter of credit
- (b) Overdraft arrangement
- (c) Discounting of bills
- (d) Recourse factoring
- (e) Pledge loan against stocks.

(1 mark)

[< Answer >](#)

10. Overtrading means

- (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 low turnover of working capital.

(1 mark)

[< Answer >](#)

11. Consider the following data

Annual credit purchase		=	Rs.72,72,000
Opening balance of accounts payable	=	Rs.17,66,400	
Closing balance of accounts payable	=	Rs.29,20,000	

The average payment period assuming 360 days in a year is

- (a) 36 days
- (b) 66 days
- (c) 96 days
- (d) 116 days
- (e) 136 days.

(1 mark)

[< Answer >](#)

12. Select the project(s) which give(s) maximum advantage to the firm

- (a) Project 'A' has a positive IRR
- (b) Project 'B' which has a Net Benefit Cost Ratio less than one but more than zero
- (c) Project 'C' which has a cost of capital higher than the internal rate of return
- (d) Project 'D' which has the highest annual capital charge compared to all other projects
- (e) Both (a) and (b) above.

(1 mark)

[< Answer >](#)

13. Which of the following statements is most **correct**?

- (a) The optimal dividend policy strikes the balance between current dividends and future growth so as to maximize the stock price
- (b) Using the constant growth stock valuation model, we can see that increasing the dividend payout will always increase the stock price
- (c) The dividend payout ratio is the percentage of amount paid to stockholders to net income
- (d) Increase in earnings lead to increase in dividends
- (e) High stock market operations of the share result in capital gains to investors.

(1 mark)

[< Answer >](#)

14. Which of the following will cause a decrease in the net operating cycle of a firm?

- (a) Increase in the average collection period
- (b) Increase in the average payment period

- (c) Increase in the finished goods storage period
- (d) Increase in the raw materials storage period
- (e) Increase in the work-in-progress period.

(1 mark)

[< Answer >](#)

15. When the net float is positive, it means

- (a) The balance in the books of the firm is lower than the balance in the books of the bank
- (b) The firm cannot issue cheques as it has an overdrawn bank account in its own book
- (c) The payment float is less than the collection float
- (d) The collection float is not available to the firm
- (e) The payment float is not available to the bankers.

(1 mark)

[< Answer >](#)

16. A firm's cost of capital is

- (a) Return on equity
- (b) Rate of return on long term financing sources of funds availed by the firm
- (c) Arithmetic weighted average cost of all sources of funds availed by the firm
- (d) Weighted average cost of all long term finances availed by the firm
- (e) Weighted cost of fund divided by the weighted market value.

(1 mark)

[< Answer >](#)

17. Cost of retained earnings is

- (a) Less than cost of equity
- (b) Equal to cost of equity
- (c) Free of cost
- (d) Greater than cost of equity
- (e) Equal to total cost of capital.

(1 mark)

[< Answer >](#)

18. In which of the following way(s) credit evaluation is done by a firm?

- (a) Bank references
- (b) Annual reports of the company
- (c) Firms image in the past
- (d) Market report
- (e) All of the above.

(1 mark)

[< Answer >](#)

19. Factoring is

- (a) Not practiced in India
- (b) An ideal tool for inventory management
- (c) Said to be on non-recourse basis if the factor bears the risk of bad debts
- (d) Akin to bill rediscounting facility
- (e) Both (a) and (c) above.

(1 mark)

[< Answer >](#)

20. Negative net working capital indicates that

- (a) The current ratio is negative
- (b) The current ratio is less than unity
- (c) Long-term funds are diverted for short-term purposes
- (d) Current ratio is equal to quick ratio
- (e) Both (b) and (c) are correct.

(1 mark)

[< Answer >](#)

21. One of the main advantages of the payback period is:

- (a) It is easy to use and places a premium on liquidity
- (b) It ignores the time value of money
- (c) All inflows related to the decision are considered
- (d) Outflows are equated with inflows using the rate of return
- (e) Only inflows are considered.

(1 mark)

[< Answer >](#)

22. When the realized yield approach is applied for finding out the cost of equity capital, one of the implicit assumptions is that

- (a) Retained earnings have no cost
- (b) The equity shareholders require a premium over the return required by bondholders

- (c) The equity shareholders require a premium over the return required by preference shareholders
- (d) The equity shareholders require a premium over the risk-free rate of return
- (e) The equity shareholders will continue to expect the same returns from the share as in the past.

(1 mark)

[< Answer >](#)

23. In a replacement decision, all of the following should be considered **except**

- (a) The cost of the new equipment
- (b) Interest costs on existing borrowing
- (c) The capital loss or gain on the sale of the old equipment
- (d) The difference in capital cost allowance tax shields between the old and new equipment
- (e) Both (b) and (c) above.

(1 mark)

[< Answer >](#)

24. In determining the appropriate capital mix, the starting point for the firm is:

- (a) The cost of common equity
- (b) The optimum capital structure
- (c) The present capital structure
- (d) The after-tax cost of debt
- (e) The before – tax cost of debt.

(1 mark)

[< Answer >](#)

25. The cost of raising fresh equity

- (a) Is equal to the existing retained earnings
- (b) Can be less or more than the existing cost of retained earnings depending on the market conditions
- (c) Will be more than the existing cost of retained earnings on account of floatation costs
- (d) Depends on the earnings per share of the company
- (e) Is free of cost.

(1 mark)

[< Answer >](#)

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

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

(1 mark)

[< Answer >](#)

27. The following is/are assumptions for P/E approach for valuing the shares

- (a) The firm declares 100% earnings as dividend
- (b) The firm will earn return equal to cost of capital on the retained earnings
- (c) The firm maintains pay-out ratio declared in the past
- (d) The sales to variable ratio of the industry is constant for a period of one year
- (e) Only (a) and (b) above.

(1 mark)

[< Answer >](#)

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

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

(1 mark)

[< Answer >](#)

29. A negative float is undesirable because

- (a) it blocks the firm's credit rating
- (b) it increases the amount of cash tied up in the collection cycle
- (c) cash earns a zero rate of return
- (d) of leakages and pilferages in the inventory
- (e) of wastage in production cycle.

(1 mark)

[< Answer >](#)

30. Which of the following conditions indicate that short term sources of funds have been used for financing long term uses?

- (a) Current ratio is less than 1.00
- (b) Quick ratio is less than 1.00
- (c) Total debt to equity ratio is more than 1.00

(d) Net working capital is positive

(e) Debt to assets ratio is 0.5.

(1 mark)

[< Answer >](#)

31. Which of the following is/are **true** regarding aggressive approach to investment in current assets?

- (a) The investment in current assets for a given level of sales forecast will be higher
- (b) A company following this approach is subjected to higher degree of risk than a company following conservative approach
- (c) The turnover of current assets will be less
- (d) The current assets under this approach is generally financed by long term sources
- (e) The current ratio in this approach is generally high.

(1 mark)

[< Answer >](#)

32. Which of the following statements is **true** with respect to the ABC system of inventory management?

- (a) The 'A' category items are those which have the lowest rupee investment
- (b) Category A items are those which have the highest rupee investment
- (c) Category A items are those which have the least count in terms of numbers
- (d) Unit cost under category A item is very costly
- (e) Unit cost under 'A' item is very cheap.

(1 mark)

[< Answer >](#)

33. Which of the following statement is/are most **correct**?

- I. Disbursement float is the amount of cheques that have been received but not credited to the firm's accounts.
 - II. Collections float is the value of cheques written that have not been deducted from the firm's account.
 - III. Net float is the difference between the firm's cash book balance and the bank's book balance
- (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 >](#)

34. Which of the following **does not** form part of the total carrying costs?

- (a) Cost of insurance
- (b) Rent of warehouse
- (c) Salaries of storekeeper
- (d) Cost of obsolescence
- (e) Cost of transportation of materials ordered for.

(1 mark)

[< Answer >](#)

35. A supplier offers the terms of credit '2/10, net 45' to a firm. Which of the following is **correct**?

- (a) A discount of 10 percent will be allowed, if the repayment is made within 2 days of the purchases
- (b) A discount of 2 percent will be allowed, if the repayment is made within 45 days of the purchases
- (c) A discount of 2 percent will be allowed, if the repayment is made within 10 days of the purchases
- (d) A discount of 10 percent will be allowed, if the repayment is made within 45 days of the purchases
- (e) The sale will be confirmed after 45 days if the payment is not made within 2/10 proportion of credit period extended.

(1 mark)

[< Answer >](#)

36. Holding cash balance to meet contingencies is

- (a) A manifestation of the transaction motive
- (b) A manifestation of the speculative motive
- (c) A manifestation of the precautionary motive
- (d) A characteristic of large firms only
- (e) A characteristic of small firms only.

(1 mark)

[< Answer >](#)

37. Which of the following results in a collection float?

- (a) Cheques issued by a firm, but awaiting payment by the bank
- (b) Cheques deposited by a firm in the bank, but not cleared by the bank
- (c) Payments due from sundry debtors
- (d) Payments due to sundry creditors
- (e) The minimum balance shown in current account.

(1 mark)

[< Answer >](#)

38. Which of the following appraisal criteria is more helpful for appraising the risky project?

- (a) Annual Capital Charge
- (b) Internal Rate of Return
- (c) Benefit Cost Ratio
- (d) Net Present Value
- (e) Pay back period.

(1 mark)

[< Answer >](#)

39. The internal rate of return method:

- (a) Does not consider inflows after the cutoff period
- (b) Calculates the interest rate that equates outflows with subsequent inflows
- (c) Determines the time required to recoup the initial investment
- (d) Determines whether future benefits justify current costs
- (e) Does not consider time value of money.

(1 mark)

[< Answer >](#)

40. Consider the following

Opening stock of finished goods	=	Rs.2,82,000
Closing stock of finished goods	=	Rs.2,50,000
Cost of production	=	Rs.5,16,800
Selling administration and financial expenditure =	Rs. 2,950	
Custom and excise duty	=	Rs. 5,000

Finished goods storage period (in days) for the company assuming 360 days in a year is

- (a) 39 days
- (b) 153 days
- (c) 172days
- (d) 192 days
- (e) 365 days.

(1 mark)

[< Answer >](#)

41. If the cum-right price per share is Rs.48 the theoretical value of the right is Rs.2 and subscription price at which the rights are issued is Rs.26 per share, the number of existing shares required for a right share is

- (a) 5
- (b) 10
- (c) 15
- (d) 20
- (e) 25.

(2 marks)

[< Answer >](#)

Consider the following data for BTC Ltd.

Earnings Per Share (EPS)	Rs.10
Dividend Payout Ratio	50%
Equity Capitalization Rate	10%
Rate of Return on Investments	12%

If the number of shares outstanding for the firm is 2,00,000 the market value of equity is

- (a) 1,10,00,000
- (b) 2,20,00,000
- (c) 3,30,00,000
- (d) 4,40,00,000
- (e) 5,50,00,000.

(2 marks)

[< Answer >](#)

43. The following details are available regarding the long term sources of finance of M/s.Magnet Enterprises:

Sources of Finance	Range of new financing from the source (Rs. in crores)	Post tax Cost %
Equity	0-9	15.00
	9-30	16.50
Preference	0-1	10.00
	1 and above	12.00
Debt	0-18	7.50
	18-40	8.00

The company is considering to expand its operations and requires Rs.50 crores for the same. It is planning to raise funds from these sources in the following proportions:

Equity	30%
Preference	10%
Debt	60%

The weighted marginal cost of capital of new financing in the range of Rs.30 crores- Rs.50 crores is

- (a) 8.95% (b) 9.95% (c) 10.95% (d) 11.95% (e) 12.95%.

(2 marks)

[< Answer >](#)

44. The dividend payout ratio of a firm is 50%. The firm follows traditional approach to dividend policy with a multiplier of 30. The P/E ratio of the firm is

- (a) 20 (b) 25 (c) 35 (d) 40 (e) 45.

(2 marks)

[< Answer >](#)

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

Market Price	=	Rs.58.33
Dividend per share	=	Rs. 5.00
Multiplier	=	7

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

- (a) 5 (b) 10 (c) 15 (d) 20 (e) 25.

(2 marks)

[< Answer >](#)

46. The average daily cost of production is Rs.50 lakhs and average conversion period is 5 days. The closing stock of work in process is 10% higher than the opening stock of work in process. The value of closing stock of work in process is

- (a) 100 lakhs (b) 262 lakhs (c) 338 lakhs (d) 438 lakhs
(e) 538 lakhs.

(2 marks)

[< Answer >](#)

47. Consider the following data regarding a product:

Total cost of ordering and carrying inventory	Rs.2,00,000	
Quantity per order		10,000 units
Carrying cost		20% of the purchase price
Fixed cost per order		Rs.500
Purchase price		Rs.100.

The annual usage of the materials in unit is

- (a) 5 lakhs (b) 10 lakhs (c) 15 lakhs (d) 20 lakhs (e) 25 lakhs.

(2 marks)

[< Answer >](#)

48. Consider the following data:

Raw-material storage period	40 days
Average stock of raw materials	Rs.8,50,000
Average balance of trade creditors	Rs.5,00,000

Assume 360 days in a year and all purchases are made on credit.

If the closing stock of raw-materials is 50% higher than the opening stock of raw-materials, the average payment period is

- (a) 198 days (b) 298 days (c) 398 days (d) 498 days (e) 598 days.

(2 marks)

[< Answer >](#)

49. Excel and Betel are two firms having capitalization rate of 20% each and their net operating income are Rs.10,00,000 each. Excel's the market value of debt and equity are in the ratio of 40:60, while for that of 'Betel' are in the ratio of 70:30. The tax rate is 30% and cost of borrowing is 15%. The rate of return for these two firms respectively are

- (a) 16.33%,12.16% (b) 16.33%, 22.16%
(c) 32.72%, 22.16% (d) 12.16%, 42.16% (e) 22.16%, 32.16%.

(2 marks)

[< Answer >](#)

50. Following is the cost structure of the Rahul Construction Company:

	Cost per unit (Rs.)
Raw materials	10.00
Manufacturing expenditure	7.50
Other over heads	25.00

Loss	7.50
Sales	35.00

No. of units for the year = 9,60,000

According to the past trend

- • Raw materials are held in stock for 2½ month
- • Work in process inventory is equal to one month production
- • Finished goods remains for a month
- • Credit allowed to debtors is 2 months
- • Manufacturing expenditure are expected to occur evenly during the year

Which of the following is the gross working capital requirements for the company

- (a) Rs.145 lakhs (b) Rs.121 lakhs (c) Rs.133 lakhs (d) Rs.150 lakhs
(e) Rs.129 lakhs.

(2 marks)

[< Answer >](#)

51. M/s Leena Printers Ltd. currently uses a machine whose book value is Rs.12 lakhs and has a remaining useful life of 5 years and a salvage value of Rs.2 lakhs at the end of the useful life.

LPL is proposing to replace the machine by a new machine costing Rs.20 lakhs and has a useful life of 5 years and salvage value of Rs.4 lakhs at the end of 5 years. The new machine is expected to reduce the annual operating costs by Rs.50,000 and increase the annual income by Rs.1,00,000. The old machine if sold now can realise Rs.9 lakhs. LPL follows straight line of depreciation and is in the tax bracket of 40%.

The net incremental cash flows of the new machine during year 0 and year 5 respectively are

- a. -Rs.20 lakhs, Rs.3.38 lakhs
b. -Rs.11 lakhs, Rs.3.38 lakhs
c. -Rs.11 lakhs, Rs.4.10 lakhs
d. -Rs.20 lakhs, Rs.2.10 lakhs
e. -Rs.11 lakhs, Rs.2.10 lakhs.

(2 marks)

[< Answer >](#)

52. The following information is given about the debentures issued by M/s. Alpha Ltd.:

Face Value	=	Rs.1000
Rate of interest	=	8% p.a.
Amount realized per debenture	=	Rs.900
Corporate tax rate	=	30%

Debenture is redeemable at a premium of 5% after 5 years. The investor can amortize the capital gains realized over the life of the debentures but the same is taxable at an effective tax rate of 16%. The cost of debenture capital is

- (a) 5.2% (b) 6.2% (c) 7.5% (d) 8.3% (e) 9.2%.

(2 marks)

[< Answer >](#)

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

Daily Usage Rate (in units)	Probability	Lead time (in days)	Probability
10	0.20	20	0.60
20	0.50	30	0.40
30	0.30		

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

- (a) 200 units, 300 units and 20% (b) 400 units, 600 units and 50%
(c) 600 units, 900 units and 50% (d) 1200 units, 1800 units and 50%
(e) 1200 units, 1800 units and 37%.

(2 marks)

[< Answer >](#)

54. BSN Ltd. has the following data

Equity capital	38 lakhs
Market value of equity	60 lakhs
Cost of raising fresh equity	6%

(2 marks)

[< Answer >](#)

59. Consider the following details given below:

Cost of the machine	3 lakhs
Cash in flow year 2	9 lakhs
Cost of capital	10%

The internal rate of returns is

- (a) 300% (b) 200% (c) 73% (d) 100% (e) 11.14%.

(2 marks)

[< Answer >](#)

60. A machine is available for purchase at a cost of Rs.80,000. It has an expected life of five years and to have a scrap value of Rs.10,000 at the end of five year period. The firm depreciates it's assets under straight line method. The profits over the life of the machine are as follows:

Amount in Rs.					
Years	1	2	3	4	5
Profit before depreciation	20,000	40,000	30,000	15,000	5000

The return on original investment and average investment respectively is

- (a) 15%, 16.28% (b) 17%, 17.68% (c) 10%, 17.78% (d) 12%, 16.58%
(e) 14%, 1838%.

(2 marks)

[< Answer >](#)

61. If the net benefit cost ratio is 0.2, the net present value is Rs.2,000, the present value of the cash inflows associated with the project is

- (a) Rs.9,800 (b) Rs.10,000 (c) Rs.12,000 (d) Rs.13,200
(e) Rs.14,000.

(2 marks)

[< Answer >](#)

62. Ms Sanchita, 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 year is 6,00,000. The fixed cost per order is Rs.300. The market price of the each copper bolt is Rs.100. The carrying cost is 10% of the average inventory value. If Ms Sanchita decides to change from existing system to EOQ system then how much annual monetary benefit this decision would bring to the company?

- (a) Rs.60,000 (b) Rs.3,36,000 (c) Rs.6,91,200 (d) Rs.7,50,000
(e) Rs.7,51,200.

(2 marks)

[< Answer >](#)

63. Magnacarta Ltd. is purchasing its requirements from M/s Lakshmi Ltd. The credit terms offered by the suppliers are 1/5, net 20. However, Magnacarta Ltd. usually pays the bills on 30th day. The cost of credit for Magnacarta Ltd.

(Assume 1 Year = 365 Days)

- (a) 7.27% (b) 10.39% (c) 14.69% (d) 24.57% (e) 20.99%.

(2 marks)

[< Answer >](#)

64. MAK Electronics Ltd is on the final stage of granting credit to the Basera 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 0.80. But in case the Basera Hotels pays for the first order the probability of default for the repeat order is 0.10. The revenue from each order is Rs.10 lakhs where as the cost of sales for each of these orders is Rs.6 lakhs. The net expected profit from this deal to MAK would be

- (a) Rs.3.4 lakh (b) Rs.4.4 lakhs (c) Rs.5.4 lakhs (d) Rs.2.4 lakhs
(e) Rs.1.4 lakhs.

(2 marks)

[< Answer >](#)

65. The finance manager of M/s. Easy Credits Ltd. is considering to change its credit terms of 2/10, net 30 to 2/10, net 45. With the change in the credit period it expects the sales to increase from Rs.30 lakhs to Rs.50 lakhs and average collection period from 36 days to 45 days. The contribution margin is 40% of the selling price.

Assuming a cost of capital of 12% and 360 days in a year, the increase in the cost of funds locked in additional receivables is

- (a) Rs.12,000 (b) Rs.18,000 (c) Rs.30,000 (d) Rs.39,600
(e) Rs.52,500.

(2 marks)

[< Answer >](#)

66. Ravi Industries is committing a capital investment of Rs.55 lakhs. The cash inflows from this project during its lifetime are as follows:

(Rs. in lakhs)

Year	1	2	3	4	5
Cash inflows	15	24	30	45	32

The internal rate of return (IRR) of the project is

- (a) 25% (b) 35% (c) 37% (d) 40% (e) 51.2%.

(2 marks)

[< Answer >](#)

67. Praveen Oil Mill is planning for its cash to be maintained during the month of August. For this the Manager (Finance) has analysed the daily cash outflows 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.)	45815	41816	35423	70669	24436	52365	42855	33666	58423	29029

It is expected that the pattern of cash outflows in the month of August will be similar to that of the month of June but the magnitude of cash outflows will be around 20% more. If the Finance Manager desires sufficient cash to cover payments of 4 peak days during the month and to arrange contingencies fund upto 10% over and above, then the safety level of cash to be maintained in the month of August would be

- (a) Rs.1,72,468 (b) Rs.2,06,881 (c) Rs.2,99,999 (d) Rs.2,74,865
(e) Rs.3,29,769.

(2 marks)

[< Answer >](#)

68. The following information is given for a project:

Year	0	1	2	3
Initial Investment	-(2,10,000)			
Profit After Tax		30,000	45,000	75,000

The ARR for the project is

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

(2 marks)

[< Answer >](#)

69. Fast Foods posted a net income of Rs.15 million this year. Financial planners at Fast anticipate to have a capital budget of approximately Rs.18 million. The firm also anticipates retaining its target capital structure of 60% equity and 40% debt. If the firm follows a strict residual dividend policy, what is their expected dividend payout ratio?

- (a) 28% (b) 36% (c) 50% (d) 64% (e) 72%.

(2 marks)

[< Answer >](#)

70. Mittal Ltd. stock currently sells for Rs.120 a share. They have just announced a 3:1 stock split to occur today. The market saw this as a positive announcement, and the firm's market capitalization rose 10%. What is new stock price?

- (a) Rs.36 (b) Rs.40 (c) Rs.44 (d) Rs.46 (e) Rs.48.

(2 marks)

END OF QUESTION PAPER

Suggested Answers

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1. Answer : (a) [<TOP>](#)
Reason : SPN is a kind of non-convertible debenture with an attached warrant. It is neither a convertible or partly convertible debenture nor any option can be attached to it. The warrants attached to the SPN does not gives holders the right for the preference shares. It is also not an example of participating preference shares. Therefore only option (a) is correct. Rest are incorrect.
2. Answer : (b) [<TOP>](#)
Reason : Private placement of securities involves selling out a significant portion of securities to an investor or a group of investor and It involves fewer procedural difficulties. It enables the companies to have faster access to funds. Private placement is not restricted to equity only it can be for any other kind of securities. But private placements are not made with a view to make public issue. Hence b is the answer.
3. Answer : (d) [<TOP>](#)
Reason : When NPV is positive ,the Internal rate of return is greater than the cost of capital an benefit cost ratio is greater than 1. Hence option (d) is correct. When NPV is positive IRR cannot be equal to cost of capital. And NBCR is not greater than 1.cost of capital is not greater than IRR. Therefore option (a),(b),(c)and (e) are incorrect.
4. Answer : (a) [<TOP>](#)
Reason : Preference shareholders have preference over equity shareholders on the post tax earnings of the firm. Preference dividends are not tax deductible. Voting rights can not be given to the cumulative preference shares. Preference shares (except participating preference shares) does not participate in the surplus. Preference shares can be redeemable or irredeemable. Thus only option (a) is correct. Rest are incorrect.
5. Answer : (d) [<TOP>](#)
Reason : Agency cost are cost on account of restriction imposed by creditors on the firm in the form of some protective covenants. Commission payable by the company to its purchasing and selling agents , the expenses incurred in distribution of the products of the company,or the dividends paid by the company does not come under the agency cost.
6. Answer : (b) [<TOP>](#)
Reason : Investing all cash in shares would be more riskier. Postpone of loan repayment and making less cash sales is also dangerous. The firm should either maintain adequate cash balance or have an overdraft arrangement with a bank. The firm should not keep huge cash balance as idle.
7. Answer : (b) [<TOP>](#)
Reason : In net operating income approach Overall capitalization rate and the cost of debt remains constant for all degrees of leverage. Cost of equity is a constant linear function of the debt-equity ratio. The breakdown in debt and equity is irrelevant as the market capitalizes the value of the firm. Hence only option (b) is incorrect.
8. Answer : (c) [<TOP>](#)
Reason : In cumulative preferences all unpaid dividends are carried forward and are payable but the rate of interest is not variable. The issuer cannot purchase the preference shares at a time before maturity. The preference shares are not convertible into equity shares and the shareholders does not have the voting rights. Hence only option c is correct.
9. Answer : (c) [<TOP>](#)
Reason : Only in case of discounting of bills the actual credit is provided by the supplier but bank assume the risk of default. Rest are incorrect.
10. 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.
11. Answer : (d) [<TOP>](#)

$$\begin{aligned}
 & \text{Reason : Average A/c payable} = \frac{17,66,400 + 29,20,000}{2} = \text{Rs.23,43,200} \\
 & \text{Annual credit purchases} = \text{Rs.72,72,000} \\
 & \text{Therefore, Daily credit purchases} = \frac{72,72,000}{360} = \text{Rs.20,200} \\
 & \text{Therefore the Average payment period} = \frac{\text{Average balance of accounts payable}}{\text{Daily credit purchases}} \\
 & = \frac{23,43,200}{20,200} = 116 \text{ days}
 \end{aligned}$$

12. Answer : (b) [<TOP>](#)
Reason : Project B will give the maximum advantages to the firm which has a Net benefit cost ratio is less than 1 but more than zero. So project 'B' should be selected. The IRR of the project should be higher than the cost of capital. Project 'C' is opposite to that. So it should not be selected. Project 'A' has a positive IRR. It is not clear whether it is more than or less than the cost of capital of the project. So it should not be selected. For the selection annual capital charge should be lowest, but in case of project 'D' it is highest compared to other products. So it should not be selected. Hence option 'b' is correct.
13. Answer : (c) [<TOP>](#)
Reason : The dividend payout ratio is the percentage of net income paid out to stockholders as cash dividends. It is calculated as DPS/EPS. The optimal dividend policy does not strike a balance between current dividends and future growth. In constant growth stock valuation model the increase in dividend payout does not always increase the stock price. Increase in earnings doesn't result in increase in dividends. High stock market operations doesn't mean capital gains to investors. Thus option (c) is correct. Rest are incorrect.
14. Answer : (b) [<TOP>](#)
Reason : Increase in the average collection period, increase in the finished goods storage period, increase in the raw materials storage period and increase in the work-in process period all result in increasing the operating cycle of the firm. Only increase in the average payment period decreases the net operating cycle of the firm. Hence option (b) is correct.
15. Answer : (a) [<TOP>](#)
Reason : When the net float is positive it means the balance in the books of the firm is lower than the balance in the books of the bank. When a company has a positive net float it may issue cheques to the extent that the amount shown in the bank's book is higher than the amount shown in the company's books, even if the company's book indicate an overdrawn position. The rest options are incorrect.
16. Answer : (d) [<TOP>](#)
Reason : The firm's total cost of capital is the weighted average cost of all long term finances of the firm. Cost of all the sources are not included. Only long-term sources are taken. Rest options are incorrect. Only option (d) is true.
17. Answer : (b) [<TOP>](#)
Reason : Cost of retained earnings is always equal to the cost of capital. Though it is the net profit retained by the firm. The problem of issue expenses and dilution of control can be avoided by this method of financing.
18. Answer : (e) [<TOP>](#)
Reason : For credit evaluation all the bank references, annual reports of the company, firm's image in the past and market report is taken into consideration. Hence option (e) is true.
19. Answer : (c) [<TOP>](#)
Reason : On the non recourse factoring the factor bears the risk of bad debts. Factoring is practiced in India. It is not the tool for inventory management but for the short term financing. It is different from the bill rediscounting facility. Hence only option (c) is correct.
20. Answer : (b) [<TOP>](#)
Reason : Net working capital is current assets less current liabilities. Whereas current ratio is current asset/current liabilities therefore when net working capital is negative, it means current liabilities is more than current assets. In that case current ratio must be less than unity. Option

(b) is correct.

21. Answer : (a) [<TOP>](#)
Reason : In payback period method, all inflows related to the decision are not considered. Option (b) is the disadvantage for the payback period method. All the outflows are not equated with inflows using the rate of return, and all inflows are not considered. But it is one of the most simple and easy appraisal criteria and related to the liquidity of the firm .It tells in how much time the firm will recover its investments. Hence Option (a) is true. Rest are incorrect
22. Answer : (e) [<TOP>](#)
Reason : In the realized yield approach one of the implicit assumptions is that the equity shareholders will continue to expect the same returns from the share as in the past. Hence option (e) is the correct answer.
23. Answer : (b) [<TOP>](#)
Reason : Interest cost should not be included in cash flow estimate because they are captured by the cost of capital used to evaluate the project. All the other factors like cost of new equipment ,the capital loss or gain on the sale of the old equipment, and difference in capital cost allowance tax shield between old and new equipment s all are taken into consideration.
24. Answer : (c) [<TOP>](#)
Reason : In determining the appropriate capital mix, the starting point for the firm is the present capital structure. The optimum capital structure is determined from the present capital structure.
25. Answer : (c) [<TOP>](#)
Reason : The cost of raising fresh equity involve the flotation cost which increases its cost more than the cost of retained earnings. So it is not equal to the existing cost of retained earnings. It is not free of cost ,and it does not depends on the earning per share of the company.
Hence (c) is the correct answer.
26. Answer : (e) [<TOP>](#)
Reason : Reserve and surplus is the only long term finance arises out of the operation of aprofit maki business.All other long term finances like preference capital ,equity capital , debenture capital can be issued or term loan can be taken by any other loss making business.
27. Answer : (e) [<TOP>](#)
Reason : In earning to price ratio approach the assumptions are the firm declares 100% earnings as dividends and the firm will earn return equal to cost of capital on the retained earnings. Hence option (e) is correct.
28. Answer : (d) [<TOP>](#)
Reason : Work in process is the current assets which is generally present in the manufacturing business and not in the trading business. Because trading business does not manufacture anything. All other current assets like finished goods inventory, cash ,receivables and prepaid expenses are present in the trading business.
29. Answer : (b) [<TOP>](#)
Reason : A negative float is undesirable because it increases the amount of cash tied up in the collection cycle.
30. Answer : (a) [<TOP>](#)
Reason : when the current assets is less than 1, it indicates that short term sources of funds have been Used for financing long term uses.
31. Answer : (b) [<TOP>](#)
Reason : In aggressive approach company generally subjected to higher degree of risk than the company following conservative approach. Hence opion (b) is correct. The turnover of current asset will be high . The current assets under this approach is generally not financed by long term sources. The investment in current assets for a given level of sales forecast is not high.
32. Answer : (b) [<TOP>](#)
Reason : Category 'A' items are those which have the highest rupee investment. It does not necessary that per unit cost under category 'A' item should be very costly or very cheap. It is also not necessary that category 'A' items should least count in terms of numbers. Hence option (b) is the correct answer.
33. Answer : (c) [<TOP>](#)

Reason : Net float is the difference between the firm's cash book balance and the bank's book balance.

34. Answer : (e)

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Reason : Cost of transportation of materials ordered for is not included in the total carrying cost. All the other costs like cost of insurance, rent of warehouse, salaries of storekeeper and cost of obsolescence form the part of total carrying cost.

35. Answer : (c)

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Reason : The terms of credit '2/10, net 45' indicate that the customer is allowed 2% discount if he pays within 10 days of purchase and after 10 days no discount is allowed, and by the end of 45 days the full payment has to be made.

36. Answer : (c)

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Reason : Holding cash balance to meet contingencies is a manifestation of precautionary motive. Transaction motive (a) is manifested when cash balance is held to meet the requirements in the normal course of business. Speculative motive (b) is manifested when cash balance is held for gaining from speculative activities. Further holding cash balance is a normal practice for all types of firms, large or small (d) and (e).

37. Answer : (b)

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Reason : cheques deposited a firm in the bank, but not cleared by the bank results in a collection float.

38. Answer : (e)

[< TOP >](#)

Reason : Pay back period appraisal criteria is more helpful for appraising the risky project.

39. Answer : (b)

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Reason : Internal rate of return calculates the interest rate that equates outflows with subsequent inflows. Irr 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 rate of return. Hence option (b) is correct. Rests are incorrect.

40. Answer : (c)

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$$\begin{aligned}\text{Reason : Average stock of finished goods} &= \frac{\text{Rs.2,82,000} + 2,50,000}{2} \\ &= \text{Rs.2,66,000} \\ \text{Cost of sales} &= \text{Opening stock of finished goods} + \text{Cost of production} + \text{Selling} \\ &\quad \text{administration of financial expenditure} + \text{Custom and Excise duty} - \\ &\quad \text{Closing stock of limited goods.} \\ &= 2,82,000 + 5,16,800 + 2,950 + 5,000 - 2,50,000 \\ &= \text{Rs.5,56,750} \\ \text{Daily cost of sales} &= \frac{5,56,750}{360} = 1546.52 \\ \text{The finished goods storage period} &= \frac{\text{Average stock of finished goods}}{\text{Daily cost of sales}} \\ &= \frac{2,66,000}{1546.52} = 172 \text{ days.}\end{aligned}$$

41. Answer : (b)

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$$\text{Reason : Theoretical value of right} = \frac{P_0 - S}{N + 1}$$

$$\begin{aligned}\text{Or } 2 &= \frac{48 - 26}{N + 1} \\ \text{Or } 2N + 2 &= 22 \\ \text{Or } 2N &= 20 \\ \therefore N &= 10\end{aligned}$$

42. Answer : (b)

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$$\begin{aligned}
 \text{Reason : According to Walter model} &= \frac{D}{K_e} + \frac{r(E-D)/K_e}{K_e} \\
 &= \frac{5}{0.10} + \frac{0.12(10-5)}{(0.10)^2} \\
 &= 50 + 60 \\
 &= 110 \\
 \therefore \text{Market value of equity} &= 110 \times 200,000 \\
 &= \text{Rs.2,20,00,000}
 \end{aligned}$$

43. Answer : (c)

[<TOP>](#)

Reason : The break points are :

1st break point: Since preference capital is available Rs.1 crore @ 10% the break point is

Rs.1 crore preference share at the rate of 10%

Rs.3 crore equity and at the rate of 15%

Rs.6 crore debt and at the rate of 7.50%

Totalling Rs.10 crores

2nd break point: Since equity of Rs.6 crore can be drawn at the rate of 15%, the 2nd breakpoint would be.

Rs.2 crore preference share @ 12%

Rs.6 crore equity share @ 15%

Rs.12 crore debt @ Rs.7.50%

Totalling Rs.20 crores.

3rd break point: Rest 20 crores, ranging from Rs. 30 crores to 50 crores can be raised as:

Rs.6 crores equity @ 16.50%

Rs.2 crore preference shares @ 12%

Rs.12 crore debt @ 8%

Therefore, the weighted marginal cost of capital

$$\begin{aligned}
 &= \frac{6}{20} \times 16.50 + \frac{2}{20} \times 12 + \frac{12}{20} \times 8 \\
 &= 0.0495 + 0.012 + 0.048 \\
 &= 0.1095 = 10.95 \%
 \end{aligned}$$

44. Answer : (b)

[<TOP>](#)

Reason : According to traditional approach

$$\begin{aligned}
 P &= 30 \left(D + \frac{E}{3} \right) \\
 (\text{Let the EPS} = 1, \text{ then DPS} = 0.50) \\
 &= 30 \left(0.50 + \frac{1}{3} \right) \\
 &= 25 \\
 P/E &= 25
 \end{aligned}$$

45. Answer : (b)

[<TOP>](#)

Reason : According to the traditional approach

$$\begin{aligned}
 P &= m \left(D + \frac{E}{3} \right) \\
 58.33 &= 7 \left(5 + \frac{E}{3} \right) \\
 \text{or, } 5 + \frac{E}{3} &= 8.3328
 \end{aligned}$$

$$\begin{aligned}\text{or, } \frac{E}{3} &= 3.3328 \\ \text{or, } E &= 9.99 = 10\%\end{aligned}$$

46. Answer : (b)

[<TOP>](#)

Reason : Let the opening stock of Work in progress = x
 then closing stock of Work in progress = $1.1x$

$$\text{the Average stock of Work in progress} = \frac{x + 1.1x}{2} = \frac{2.1x}{2} = 1.05x$$

$$\text{The average conversion period} = \frac{\text{Average stock of Work in progress}}{\text{Average daily cost of production}}$$

$$\text{Or, } 5 = \frac{1.05x}{50}$$

$$\text{Or, } 1.05x = 250$$

$\therefore x = 238$ lakhs. Therefore closing stock = $1.1x \ 238 = 262$ lakhs.

47. Answer : (d)

[<TOP>](#)

Reason : The total cost of ordering and carrying cost

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

$$200,000 = \frac{U \times 500}{10,000} + \frac{10,000 \times 100 \times 0.20}{2}$$

$$\text{or, } \frac{U \times 500}{10,000} = 100,000$$

$$\text{or, } U = 20,00,000 = 20 \text{ lakhs.}$$

48. Answer : (d)

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Reason : Let opening stock = x

Closing stock = $1.50x$

$$\text{Then } \frac{x + 1.50x}{2} = 8,50,000$$

Therefore opening stock = Rs.680,000

$$\begin{aligned}\text{Closing stock} &= 1.50x \\ &= \text{Rs.}10,20,000\end{aligned}$$

$$\text{Raw material storage period} = \frac{\text{Average stock of Raw Material}}{\text{Stock Consumed}}$$

$$\text{Or, } 40 = \frac{8,50,000}{\text{Stock Consumed}}$$

$$\begin{aligned}\text{Or, Stock Consumed} &= \frac{8,50,000}{40} \\ &= 21,250\end{aligned}$$

$$\begin{aligned}\text{Purchases} &= \text{Stock Consumed} + \text{Closing stock} - \text{Opening stock} \\ &= 21,250 + 10,20,000 - 6,80,000 \\ &= \text{Rs.}3,61,250\end{aligned}$$

$$\text{Average Payment Period} = \frac{\text{Average Balance of Creditors}}{\text{Daily Purchases}}$$

$$= \frac{500,000}{361,250} \times \frac{1}{360} = 498 \text{ days.}$$

49. Answer : (b)

[<TOP>](#)

Reason : **For Firm Excel**

$$\begin{aligned}
 \text{Net operating income} &= \text{Rs.10,00,000} \\
 \text{Overall capitalization rate} &= 0.20 \\
 \text{Total market value of the firm} &= \text{Rs.50,00,000} \\
 \text{Market value of equity (60\%)} &= \text{Rs.30,00,000} \\
 \text{Market value of debt (40\%)} &= \text{Rs.20,00,000} \\
 \text{Interest rate is 15\%} &= 3,00,000 \\
 \text{Profit before tax} &= \text{NOI} - \text{interest} \\
 &= 10,00,000 - 3,00,000 \\
 &= \text{Rs.7,00,000} \\
 \text{Tax (30\%)} &= \text{Rs.2,10,000} \\
 \text{Profit after tax} &= 4,90,000 \\
 \text{ROE} &= \frac{\text{PAT}}{\text{Market Value of Equity}} = \frac{4,90,000}{30,00,000} = 0.163 = 16.3\%
 \end{aligned}$$

For Firm Betel

$$\begin{aligned}
 \text{Net operating income} &= \text{Rs.10,00,000} \\
 \text{Overall capitalization rate} &= 0.20 \\
 \text{Total market value of the firm} &= 50,00,000 \\
 \text{Market value of equity (30\%)} &= 15,00,000 \\
 \text{Market value of debt (70\%)} &= 35,00,000 \\
 \text{Interest rate is 15\%} &= \text{Rs.5,25,000} \\
 \text{Profit before tax} &= \text{NOI} - \text{Interest} \\
 &= 10,00,000 - 5,25,000 \\
 &= \text{Rs.4,75,000} \\
 \text{Tax 30\%} &= \text{Rs.1,42,500} \\
 \text{Profit after tax} &= \text{Rs.3,32,500} \\
 \text{ROE} &= \frac{\text{PAT}}{\text{Market Value of Equity}} = \frac{3,32,500}{15,00,000} = 0.2216 = 22.16\%
 \end{aligned}$$

50. Answer : (c)

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$$\begin{aligned}
 \text{Reason : RM per month} &= \frac{10 \times 960,000}{360} \times 30 = 800,000 \\
 \text{Manufacturing expenditure per month} &= \frac{960,000 \times 7.50}{360} \times 30 = 600,000 \\
 \text{Other over heads per month} &= \frac{25 \times 9,60,000}{360} \times 30 = 20,00,000 \\
 \textbf{The investment in various current assets} & \\
 \text{RM} &= 800,000 \times 2.5 = \underline{20,00,000} \\
 \text{W.I.P} &= 800,000 \times 1 = 800,000 \\
 &= 600,000 \times 0.5 = 300,000 \\
 &= \underline{11,00,000} \\
 \text{Finished goods} &= 800,000 \times 1 = 800,000 \\
 &= 600,000 \times 1 = 600,000 \\
 &= 2000,000 \times 1 = \underline{20,00,000} \\
 &= \underline{34,00,000}
 \end{aligned}$$

Debtors	=	800,000 × 2 =	16,00,000
		600,000 × 2 =	12,00,000
		2000,000 × 2 =	4000,000
			68,00,000
Total working capital required	=	20,00,000+11,00,000 + 34,00,000 + 68,00,000	
	=	Rs.133,00,000	

51. Answer : (b)

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Reason : Net incremental cash flow during year 0 is

$$= - (\text{Investment for new machine} - \text{present realizable value of old machine})$$

$$= - (20 - 9) = - \text{Rs.11 lakhs}$$

Net incremental cash flow during year 5 is

$$= \text{Incremental PAT} + \text{Incremental Depreciation} + \text{Incremental realizable value}$$

$$\text{Depreciation of old machine} = \frac{12 - 2}{5} = \text{Rs.2,00,000}$$

$$\text{Depreciation of new machine} = \frac{20 - 4}{5} = \text{Rs.3,20,000}$$

$$\text{Incremental depreciation} = \text{Rs.3,20,000} - 2,00,000 = \text{Rs.1,20,000}$$

Net incremental cash flow during year 5

$$= (50,000 + 1,00,000 - 1,20,000) 0.6 + 1,20,000 + 2,00,000$$

$$= \text{Rs.3,38,000} = 3.38 \text{ lakh.}$$

Hence, answer is (b).

52. Answer : (d)

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$$\frac{i(1-t) + \frac{f-p}{n} \times (1-t_1)}{\frac{f+p}{2}}$$

Reason :

$$\frac{80(1-0.30) + \frac{1050-900}{5}(1-0.16)}{\frac{1050+900}{2}}$$

$$= \frac{56 + 25.2}{975} = 8.3\%$$

53. Answer : (c)

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Reason :

Daily usage rate (in units)	Probability	Expected usage	Lend time	Probability	Expected lead time
10	0.20	2	20	.60	12
20	0.50	10	30	0.40	12
30	0.30	9			
		21			24

$$\text{Average usage} = 21 \times 24 = 504$$

Possible usage levels

$$10 \times 20 = 200$$

$$10 \times 30 = 300$$

$$20 \times 20 = 400$$

$$20 \times 30 = \underline{600}$$

$$30 \times 20 = \underline{600}$$

$$30 \times 30 = \underline{900}$$

Stock-out is at, 600, 600 and 900 levels. Therefore probability of stock out

$$\begin{aligned}
 &= (0.50 \times 0.40) + (0.30 \times 0.60) + (0.30 \times 0.40) \\
 &= 0.2 + 0.18 + 0.12 \\
 &= 0.5 = 50\%.
 \end{aligned}$$

54. Answer : (d)

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Reason : Cost of external equity = 18.1%

Cost of issue = 6%

Required rate of return = $0.181 \times (1 - 0.06)$ =

Overall capitalization rate = Net operating income/market value of the firm

$$\begin{aligned}
 K_0 &= k_d (B/B+S) + K_e (S/B+S) \\
 &= 0.15 (40/100) + 0.17(60/100) \\
 &= 0.6 + 0.102 \\
 &= 0.162
 \end{aligned}$$

Net operating income = $k_0 \times \text{market value of the firm}$

$$\begin{aligned}
 &= 0.162 \times 100 \\
 &= 16.2 \text{ lakhs}
 \end{aligned}$$

So option (d) is the answer.

55. Answer : (a)

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Reason : **BSN Ltd.**

Market value of debt = Interest on debt/debt capitalization rate

$$= \text{Rs.}1500/0.12 = \text{Rs.}12,500$$

Market value of equity = Total market value-market value of debt

$$= \text{Rs.}88,235 - \text{Rs.}12,500$$

$$= \text{Rs.}75,735$$

Equity capitalization rate = Equity earnings/market value of equity

$$= (\text{Operating income} - \text{Interest on debt})/\text{market value of equity}$$

$$= \text{Rs.}13,500/\text{Rs.}75,735$$

$$= 17.83\%$$

BTN Ltd.

Market value of debt = Interest on debt/debt capitalization rate

$$= \text{Rs.}3500/0.12$$

$$= \text{Rs.}29,167$$

Market value of equity = Total market value – Market value of equity

$$= \text{Rs.}88,235 - \text{Rs.}29,167$$

$$= \text{Rs.}59,068$$

Equity capitalization rate = Equity earnings/market value of equity

$$= (\text{Operating income} - \text{interest on debt})/\text{market value of equity}$$

$$= \text{Rs.}11,500/\text{Rs.}59,068$$

$$= 19.47\%$$

Market value of equity of BSN Ltd. exceeds market value of equity of BTN Ltd. by Rs.16,667. So statement (I) is true.

Market value of debt of BTN Ltd. exceeds market value of debt of BSN Ltd. by Rs.16,667. So statement (II) is not true.

The equity capitalization rate of BTN Ltd. exceeds the equity capitalization rate of BSN Ltd. by 1.64%. So statement (III) is not true.

Hence option (a) is the true.

56. Answer : (c)

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Reason : As per the MM Hypothesis, the value of levered firm exceed the unlevered firm by the amount of tax shield.

$$\begin{aligned}
 & \quad \quad \quad \frac{2,40,000}{0.08} = \text{Rs.}30,00,000 \\
 \text{Amount of debt} &= 0.08 = \text{Rs.}30,00,000 \\
 \text{Tax shield} &= B(t) \\
 &= 30,00,000 \times 0.50 \\
 &= \text{Rs.}15,00,000.
 \end{aligned}$$

57. Answer : (d)

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Reason : Number of equity shares of the company = $\text{Rs.}8,40,000/10 = \text{Rs.}84,000$.

Preference dividend paid = $15 \times 6,00,000/100 = \text{Rs.}90,000$

Earnings per share = $\text{Net profit} - \text{Preference dividend}/\text{no of equity shares}$

$$= \text{Rs.}9,00,000 - \text{Rs.}90,000/\text{Rs.}84,000$$

$$= \text{Rs.}8,10,000/\text{Rs.}84,000 = \text{Rs.}9.64$$

Accord into earnings price ratio approach cost of equity = E_1/P

$$= E_1 = \text{Earnings per share for the next year}$$

$$P = \text{Market price per the share}$$

$$= E_1 = E(1+g) = 9.64(1+0.05) = 10.122$$

Cost of equity = $10.122/20 = 0.5061 = 50.61\%$.

58. Answer : (e)

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Reason :

Project Name	Initial Cost (Rs.)	Maintenance Cost (Rs.)	PVIFA (12,6)	PV of maintenance cost (Rs.)	Salvage value (Rs.)	PVIF (12,6)	PV of S.V. (6x7) (Rs.)	Total cash out flow (Rs.)	Annual capital charge (Rs.)
1	2	3	4	5 = (3x4)	6	7	8 = (6x7)	9 = 2+5-8	10 = (9/4)
A	62,000	3000	4.111	12,333	10,000	0.5066	5066.3	69,267	16,849
B	75,000	4000	4.111	16,444	12,000	0.5066	6079.2	85,365	20,765
C	48,000	2500	4.111	10,276	15,000	0.5066	7599	50,677	12,327

As B>A>C.

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

59. Answer : (c)

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Reason : Let IRR = r then

$$-3 + \frac{9}{(1+r)^2} = 0$$

$$\text{Or } 3 = \frac{9}{(1+k)^2}$$

Let r = 73%, then

$$= \frac{9}{(1+0.73)^2} = 3$$

Therefore, internal rate of return = 73%. Hence (c) is the correct answer.

60. Answer : (c)

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Reason : Total profit before depreciation over the life of the machine = Rs.1,10,000

Average profit p.a = $\text{Rs.}1,10,000/5 = \text{Rs.}22,000$

Total depreciation over the life of the machine = Rs.80,000 – Rs.70,000

Average depreciation p.a = $\text{Rs.}70,000/5 = \text{Rs.}14,000$

Average annual profit after depreciation = $\text{Rs.}22,000 - \text{Rs.}14,000 = \text{Rs.}8,000$

Return on original investment:

Original investment required = Rs.80,000

Accounting rate of return = $(\text{Rs.}8,000/\text{Rs.}80,000) \times 100 = 10\%$

Return on average investment:

$$\text{Average investment} = 80,000 + 10,000/2 = \text{Rs.45,000}$$

$$\text{Accounting rate of return} = (8000/45,000) \times 100 = 17.78\%$$

So option (c) is the answer.

61. Answer : (c)

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$$\text{Reason : Net benefit cost ratio} = \frac{\text{NPV}}{I}$$

$$\text{Or } 0.2 = \frac{2000}{I}$$

$$\text{Or } 0.2 \times I = 2000$$

$$\text{Or } I = 2000/0.2$$

$$\text{Thus initial investment} = \text{Rs.10,000}$$

$$\begin{aligned} \text{The present value of cash inflows} &= \text{Rs.10,000} + \text{Rs.2000} \\ &= \text{Rs.12,000} \end{aligned}$$

62. Answer : (c)

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Reason : Existing cost of inventory

$$\begin{aligned} &= 4 \times 300 + \frac{1,50,000}{2} \times 100 \times 0.10 \\ &= 1200 + 7,50,000 \end{aligned}$$

$$\begin{aligned} \text{EOQ} &= \sqrt{\frac{2UP}{C}} = \sqrt{\frac{2 \times 6,00,000 \times 300}{100 \times 0.1}} \\ &= 6000 \end{aligned}$$

Cost of inventory in the EOQ system

$$\begin{aligned} &= \frac{6,00,000}{6,000} \times 300 + \frac{6,000}{2} \times 100 \times 0.1 \\ &= 30,000 + 30,000 \\ &= 60,000 \end{aligned}$$

$$\therefore \text{Benefit} = 7,51,200 - 60,000 = \text{Rs.6,91,200}$$

63. Answer : (d)

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$$\begin{aligned} \text{Reason : The cost of credit} &= \frac{0.01}{(1 - 0.01)} \times \frac{365}{20 - 5} \\ &= \frac{0.01}{0.99} \times \frac{365}{15} \\ &= 24.57\% \end{aligned}$$

64. Answer : (b)

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Reason : The net expected benefit from the deal

$$\begin{aligned} &= (0.8 \times 4 - 0.2 \times 6) + [0.8(0.9 \times 4 - 0.10 \times 6)] \\ &= 2 + 2.4 \\ &= 4.4 \text{ lakhs} \end{aligned}$$

65. Answer : (c)

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Reason : Cost of funds locked in additional receivables is

$$\begin{aligned} &= (50 - 30) \times \frac{45}{360} \times 0.12 \\ &= \text{Rs.30,000} \end{aligned}$$

66. Answer : (c)

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Reason : Let the IRR project = k, then

$$55 \text{ lakh} = \frac{15}{(1+k)^1} + \frac{24}{(1+k)^2} + \frac{30}{(1+k)^3} + \frac{45}{(1+k)^4} + \frac{32}{(1+k)^5}$$

Let $k = 37\%$

$$= 10.94 + 12.78 + 11.66 + 12.77 + 6.620$$

$$= 54.78 = 55 \text{ (approx.)}$$

Therefore, IRR = 37% (approx.)

67. Answer : (c)

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Reason : 4 peak days cash out flows are:

$$= 45,815 + 70,669 + 52,365 + 58,423$$

$$= \text{Rs.}2,27,272$$

In August cash out flow will be 20% more

$$= \text{Rs.}2,27,272 + 20\% \text{ of Rs.}2,27,272$$

$$= \text{Rs.}2,72,726.4$$

$$10\% \text{ contingencies} = \text{Rs.}2,72,726.4 + 10\% \text{ of Rs.}2,72,726.4$$

$$= \text{Rs.}2,99,999.04$$

68. Answer : (c)

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$$\text{Reason : Average investment} = \frac{2,10,000 + 0}{2} = \text{Rs.}1,05,000$$

$$\text{Average profit} = \frac{30,000 + 45,000 + 75,000}{3} = \text{Rs.}50,000$$

$$\text{Accounting rate of return} = \frac{\text{Average profit}}{\text{Average investment}} = \frac{50,000}{1,05,000}$$

$$= 47.62\%$$

69. Answer : (a)

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$$\text{Reason : Capital budget} = \text{Rs.}18 \text{ million}$$

$$\text{Debt equity ratio} = 40:60$$

$$\text{Therefore debt} = \frac{40}{100} \times 18 = \text{Rs.}7.2 \text{ million}$$

$$\text{Rest capital budget} = \text{Rs.}18 \text{ million} - \text{Rs.}7.2 \text{ million}$$

$$= \text{Rs.}10.8 \text{ million}$$

$$\text{Net income} = \text{Rs.}15 \text{ million}$$

$$\text{Therefore residual dividend} = \text{Rs.}15 - 10.8$$

$$= \text{Rs.}4.2 \text{ million}$$

$$\text{Dividend payout ratio} = \frac{\text{Rs.}4.2 \text{ million}}{\text{Rs.}15 \text{ million}}$$

$$= 28\%$$

70. Answer : (c)

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$$\text{Reason : Current stock price} = \text{Rs.}120 \text{ per share}$$

Market capitalization rise by 10% means share price increases by 10%

$$\text{Therefore new stock price} = \text{Rs.}120 + \text{Rs.}12 =$$

$$\text{As the stock split ratio} = 3:1$$

$$\text{Per share stock price} = \frac{\text{Rs.}132}{3} = \text{Rs.}44$$

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