Accounting Ratios

Previous Years' CBSE Board Questions

5.4 Limitations of Ratio Analysis

SA II (3/4 marks)

1. "It is a technique which involves regrouping of data by application of arithmetical relationships." Identify the technique and state any two limitations of the technique identified. *(2023)*

5.6 Liquidity Ratios

MCQ

2. Given below are two statements, one labelled as Assertion (A) and the other labelled as Reason (R) :
   Assertion (A) : Current Ratio establishes relationship between Current Assets and Current Liabilities.
   Reason (R) : The objective of this ratio is to measure the ability of the firm to meet its short term obligations as and when due without relying upon the realisation of inventories.
   In the context of the above two statements, choose the correct option.
   (a) (A) is correct but (R) is incorrect.
   (b) Both (A) and (R) are correct and (R) is the correct explanation of (A).
   (c) Both (A) and (R) are incorrect.
   (d) (A) is incorrect but (R) is correct.
   (Term-I, 2021-22)

3. Because of exclusion of non-liquid current assets, which of the following ratio is considered better than current ratio as a measure of liquidity position of the business?
   (a) Debt – Equity Ratio
   (b) Acid Test Ratio
   (c) Proprietary Ratio
   (d) Interest Coverage Ratio *(Term-I, 2021-22)* U

4. Current ratio of a company is 3 : 1. The value of its current liabilities is ₹4,00,000. Its current assets will be:
   (a) ₹3,00,000 (b) ₹12,00,000
   (c) ₹2,00,000 (d) ₹9,00,000
   (Term-I, 2021-22) EV

5. ________ helps to assess the short term solvency of a business.
   (a) Turnover Ratio (b) Solvency Ratio
   (c) Liquidity Ratio (d) Profitability Ratio
   (2021 C)

VSA (1 mark)

6. The current ratio of a company is 2 : 1. State giving reason whether purchase of goods on credit will increase, decrease or not change the ratio. *(Delhi 2020)* Ap

SA II (3/4 marks)

7. The Current Ratio of a company is 2 : 1. State giving reasons, whether the following transactions would reduce, improve or not change the Current Ratio:
   (i) Payment of Current Liability
   (ii) Purchased Goods on Credit *(2021 C)*

8. The quick ratio of a company is 0.8 : 1. State with reason whether the following transactions will increase, decrease or not change the quick ratio.
   (i) Purchase of loose tools ₹ 2,000.
   (ii) Insurance premium paid in advance ₹ 500.
   (iii) Sale of goods on credit ₹ 3,000.
   (iv) Honoured bills payable ₹ 5,000 on maturity.
   (Delhi 2017) Ap

9. The current ratio of a company is 2.1 : 1.2. State with reasons which of the following transactions will increase, decrease or not change the ratio.
   (i) Redeemed 9% debentures of ₹ 1,00,000 at a premium of 10%.
   (ii) Received from debtors ₹ 17,000.
   (iii) Issued ₹ 2,00,000 equity shares to the vendors of machinery.
   (iv) Accepted bills of exchange drawn by the creditors ₹ 7,000. *(AI 2015)*

10. The quick ratio of a company is 1.5 : 1. State with reason which of the following transactions would (i) increase (ii) decrease or (iii) not change the ratio :
    (I) Paid rent ₹ 3,000 in advance.
    (II) Trade receivables included a debtor Shri Ashok who paid his entire amount due ₹ 9,700.
    (AI 2014) EV

5.7 Solvency Ratios

MCQ

11. _____ ratios are calculated to determine the ability of the business to service its debt in long-run.
    (a) Profitability (b) Solvency
    (c) Liquidity (d) Turnover *(2023)*

12. From the following information, calculate Interest Coverage Ratio :
    Net profit after tax ₹ 6,00,000
    10% Debentures ₹ 50,00,000
    Tax Rate 40%
    (a) 1.2 times (b) 3 times
    (c) 2 times (d) 5 times
    (Term-I, 2021-22)

13. Which of the following ratio establishes relationship of 'Shareholders funds' to 'Net assets'?
    (a) Return on Investment
    (b) Interest Coverage Ratio

(c) Proprietary Ratio
(d) Debt - Equity Ratio *(Term-I, 2021-22)* U

14. Given below are two statements, one labelled as Assertion (A) and the other labelled as Reason (R):
Assertion (A) : A high debt-equity ratio is risky.
Reason (R) : It may put the firm into difficulty to pay long term debts.
In the context of the above two statements, choose the correct option.
(a) (A) is correct but (R) is incorrect.
(b) Both (A) and (R) are correct.
(c) (A) is incorrect but (R) is correct.
(d) Both (A) and (R) are incorrect.
(Term-I, 2021-22) U

15. During the year ended 31-03-2021, Some Ltd. earned net profit after tax ₹6,00,000. The company has a long term 10% debt of ₹50,00,000. The tax rate is 40%. The interest coverage ratio of the company will be :
(a) 2 times (b) 3 times
(c) 1.2 times (d) 1.5 times
(Term-I, 2021-22) Ap

VSA **(1 mark)**

16. What is meant by solvency of business ? *(Delhi 2016)*

SA II **(3/4 marks)**

17. The debt equity ratio of M Ltd. is 2:1. State with reasons whether the following transactions will increase, decrease or not change the debt equity ratio:
(i) Obtained a loan from ICICI Bank ₹1,00,000 payable after 5 years.
(ii) Purchased machinery for cash ₹1,50,000.
(iii) Redeemed 9% Debentures of ₹1,00,000.
(iv) Issued equity shares for purchase of machinery of ₹5,00,000 to the vendors. *(2023)*

18. (a) Calculate 'Total Assets to Debt ratio' from the following information :

	₹
Equity Share Capital	4,00,000
Long Term Borrowings	1,80,000
Surplus *i.e.*, Balance in Statement of Profit and Loss	1,00,000
General Reserve	70,000
Current Liabilities	30,000
Long Term Provision	1,20,000

(b) The Debt Equity Ratio of a company is 1 : 2. State whether 'Issue of bonus shares' will increase, decrease or not change the Debt Equity Ratio.
(Delhi 2019) EV

19. From the following information related to Naveen Ltd. Calculate : Total Assets to Debts Ratio.
Information : Fixed Assets ₹ 75,00,000, Current Assets ₹ 40,00,000, Current Liabilities ₹ 27,00,000, 12% Debentures ₹ 80,00,000 and Net Profit before Interest, Tax and Dividend ₹ 14,50,000. *(Delhi 2015)*

20. From the following information compute 'Proprietary Ratio' :

	₹
Long-Term Borrowings	2,00,000
Long-Term Provisions	1,00,000
Current -Liabilities	50,000
Non-Current Assets	3,60,000
Current Assets	90,000

(AI 2014)

5.8 Activity (or Turnover) Ratios

MCQ

21. The Inventory Turnover Ratio from the following information will be:

Revenue from Operations	₹12,00,000
Average Inventory	₹2,00,000
Gross Loss Ratio:	20%

(a) 6 times (b) 5 times
(c) 7.2 times (d) 3 times *(2023)*

22. ________ ratios indicate the speed at which activities of the business are being performed.
(a) Profitability (b) Turnover
(c) Solvency (d) Liquidity
(Term-I, 2021-22) U

23. From the following information, calculate Inventory Turnover Ratio.

Revenue from operations	₹2,00,000
Average inventory	₹20,000
Gross profit ratio	10%

(a) 9 times (b) 10 times
(c) 12 times (d) 20 times
(Term-I, 2021-22)

24. Which of the following ratio establishes the relationship between 'credit revenue from operations' and 'trade receivables'?
(a) Inventory Turnover Ratio
(b) Interest Coverage Ratio
(c) Trade Payables Turnover Ratio
(d) Trade Receivables Turnover Ratio
(Term-I, 2021-22)

25. Which of the following is not an activity ratio ?
(a) Inventory Turnover Ratio
(b) Interest Coverage Ratio
(c) Working Capital Turnover Ratio
(d) Trade Receivables Turnover Ratio
(Delhi 2020)

VSA **(1 mark)**

26. State whether the following statement is true or false.
Inventory Turnover Ratio measures the level of financial leverage. *(2020)* U

27. What is meant by 'Activity Ratios'? *(Delhi 2016)*

SA II (3/4 marks)

28. Calculate Revenue from Operations of "BN Ltd." from the following information.

Current Assets	₹8,00,000
Quick ratio	1.5 : 1
Current ratio	2 : 1
Inventory turnover ratio	6 times

Goods were sold at a profit of 25% on cost. *(2023)*

29. Calculate the amount of opening trade receivables and closing trade receivables from the following information:

Trade Receivables Turnover Ratio = 8 times

Cost of Revenue from Operations = ₹4,80,000.

The amount of credit Revenue from Operations is ₹2,00,000 more than cash Revenue from Operations.

Gross profit ratio is 20%.

Opening trade receivables are 1 /4th of closing trade receivables. *(Delhi 2020)*

30. From the following information obtained from the books of Kundan Ltd., calculate the inventory turnover ratio for the year 2015-16 and 2016-17 :

	2015-16 ₹	2016-17 ₹
Inventory on 31st March	7,00,000	17,00,000
Revenue from operations	50,00,000	75,00,000

(Gross profit is 25% on cost of revenue from operations)

In the year 2015-16, inventory increased by ₹ 2,00,000. *(NCERT, 2018)* Ap

5.9 Profitability Ratios

MCQ

31. The ratios that analyse profits in relation to revenue from operations or funds employed in the business are called:
(a) Profitability Ratios
(b) Turnover Ratios
(c) Solvency Ratios
(d) Liquidity Ratios *(Term-I, 2021-22)*

32. If operating ratio is 65%, operating profit ratio will be ______
(a) 20% (b) 25%
(c) 35% (d) 30%
(Term-I, 2021-22)

33. Gross profit ratio of a company was 25%. Its credit revenue from operations was ₹16,00,000 and its cash revenue from operations was 20% of the total revenue from operations. If the indirect expenses of the company were ₹50,000, its net profit ratio will be:
(a) 27.5% (b) 20%
(c) 22.5% (d) 25%
(Term-I, 2021-22)

34. Given below are two statements, one labelled as Assertion (A) and the other labelled as Reason (R) :

Assertion (A) : Profitability ratios are calculated to analyse the earning capacity of the business.

Reason (R) : Profitability ratios are calculated to determine the ability of the business to service its debt in the long run.

In the light of the above two statements, which of the following is correct:
(a) Both (A) and (R) are correct.
(b) Both (A) and (R) are incorrect.
(c) (A) is correct but (R) is incorrect.
(d) (A) is incorrect but (R) is correct.
(Term-I, 2021-22) U

35. Gross Profit Ratio of a company is 25%. Cost of Revenue from Operations are 3/4th of Revenue from Operations. If Revenue from Operations is ₹60,00,000, the Gross Profit of the company will be:
(a) ₹25,00,000 (b) ₹45,00,000
(c) ₹15,00,000 (d) ₹11,25,000
(Term-I, 2021-22)

36. Given below are two statements, one labelled as Assertion (A) and the other labelled Reason (R):

Assertion (A) : Operating ratio is = 100 - operating profit ratio.

Reason (R) : Operating ratio is computed to reveal the operating margin on products sold.

In the context of the above two statements, which of the following is correct?
(a) Both statements are incorrect.
(b) (A) is correct but (R) is incorrect.
(c) (A) is incorrect but (R) is correct.
(d) Both (A) and (R) are correct and (R) is the correct explanation of (A). *(Term-I, 2021-22)* U

VSA (1 mark)

37. If the operating ratio of a company is 75%, operating profit ratio will be ______. *(2020 C)*

SA II (3/4 marks)

38. A company had a liquid ratio of 1.5:1 and a current ratio of 2:1. Its inventory turnover ratio was 6 times. It had total current assets of 2,00,000.
Find out revenue from operations if the goods are sold at 25% profit on cost. *(2020)*

39. (a) Calculate Revenue From Operations of BN Ltd. from the following information :

Current assets	₹ 8,00,000
Quick ratio	1.5 : 1
Current ratio	2 : 1
Inventory turnover ratio	6 times

Goods were sold at a profit of 25% on cost.

(b) The operating ratio of a company is 60%. State whether 'purchase of goods costing ₹ 20,000' will increase, decrease or not change the operating ratio. *(Delhi 2019)*

40. From the following information calculate operating ratio :

Revenue from operations	₹ 6,80,000
Rate of gross profit on cost	25%
Selling expenses	₹1,44,000
Administrative expenses	₹73,000.

(NCERT, Delhi 2016)

41. From the following information related to Naveen Ltd. calculate Return on Investment.
Information : Fixed Assets ₹75,00,000; Current Assets ₹ 40,00,000; Current Liabilities ₹ 27,00,000 12% Debentures ₹ 80,00,000 and Net Profit before Interest, Tax and Dividend ₹ 14,50,000. *(Delhi 2015)* Ap

42. The motto of Pharma Ltd., a company engaged in the manufacturing of low-cost generic medicines, is 'Healthy India'. Its management and employees are hardworking, honest and motivated. The net profit of the company doubled during the year ended 31.3.2014. Encouraged by its performance, the company decided to pay bonus to all employees at double the rate than last year.

Following is the Comparative statement of Profit and Loss of the company for the ended 31.3.2013 and 31.3.2014.

Particulars	Note No.	2011-12 (₹)	2013-14 (₹)	Absolute Change ₹	% Change
Revenue from operations		20,00,000	30,00,000	10,00,000	50
Less : Employees benefit expenses		12,00,000	14,00,000	2,00,000	16.67
Profit before tax		8,00,000	16,00,000	8,00,000	100
Tax at 25% rate		2,00,000	4,00,000	2,00,000	100
Profit after tax		6,00,000	12,00,000	6,00,000	100

(i) Calculate net profit ratio for the year ending 31st March, 2013 and 2014.
(ii) Identify any two values which 'Pharma Ltd.' is trying to propagate. *(AI 2015)* Ap

CBSE Sample Questions

5.4 Limitations of Ratio Analysis

SA II (3/4 marks)

1. Lala Ltd. and Bala Ltd. use different accounting policies for inventory valuation. These variations leave a big question mark on the cross-sectional analysis and comparison of these two firms was not possible.
Identify the limitation of Ratio Analysis highlighted in the above situation. Also explain any two other limitations of Ratio Analysis apart from the identified above. *(2022-23)*

5.5 Types of Ratios

MCQ

2. Which of the following ratios are included in traditional classification of ratios?
(i) Liquidity Ratios.
(ii) Statement of Profit and Loss Ratios.
(iii) Balance Sheet Ratios.
(iv) Profitability Ratios.
(v) Composite Ratios.
(vi) Solvency Ratios.
(a) (ii), (iii) and (v) only
(b) (i), (iv) and (vi) only
(c) (i), (ii) and (vi) only
(d) (i), (ii), (iii), (iv), (v) and (vi) *(Term-I, 2021-22)*

3. Which of the following groups of ratios primarily measure risk?
(a) solvency, activity, and profitability
(b) liquidity, efficiency, and solvency
(c) liquidity, activity, and profitability
(d) liquidity, solvency, and profitability
(Term-I, 2021-22) U

4. Which of the following statements are correct?
(i) A ratio is an arithmetical relationship of one number to another number.
(ii) Liquidity ratio is also known as acid test ratio.
(iii) Ideally accepted current ratio is 1: 1.
(iv) Debt equity ratio is the relationship between outsider's funds and shareholders' funds.
(a) All are correct.
(b) Only (i), (ii) and (iv) are correct.
(c) Only (ii), (iii) and (iv) are correct.
(d) Only (ii) and (iv) are correct. *(Term-I, 2021-22)*

5.6 Liquidity Ratios

MCQ

5. Current ratio of Adaar Ltd. is 2.5:1. Accountant wants to maintain it at 2:1. Following options are available.
(i) He can repay Bills Payable.
(ii) He can purchase goods on credit.
(iii) He can take short term loan.

Choose the correct option.
(a) Only (i) is correct.
(b) Only (ii) is correct.
(c) Only (i) and (iii) are correct.
(d) Only (ii) and (iii) are correct. *(Term-I, 2021-22)*

6. Current ratio of Vidur Pvt. Ltd. is 3:2. Accountant wants to maintain it at 2:1. Following options are available.
(i) He can repay Bills Payable.
(ii) He can purchase goods on credit.
(iii) He can take short term loan.
Choose the correct option
(a) Only (i) is correct.
(b) Only (ii) is correct.
(c) Only (i) and (iii) are correct.
(d) Only (ii) and (iii) are correct. *(2020-21)* An

VSA (1 mark)

7. What will be the current Ratio of a company whose Net Working Capital is zero? *(2020-21)*

5.7 Solvency Ratios

MCQ

8. From the following, calculate Interest Coverage Ratio. Net profit after tax ₹12,00,000; 10% debentures ₹ 1,00,00,000; Tax Rate 40%.
(a) 1.2 times (b) 3 times
(c) 2 times (d) 5 times *(2022-23)*

9. Which ratio indicates the proportion of assets financed out of shareholders' funds?
(a) Debt equity ratio
(b) Fixed assets turnover ratio
(c) Proprietary ratio
(d) Total assets to debt ratio *(Term-I, 2021-22)*

SA II (3/4 marks)

10. Debt to Capital Employed ratio is 0.3:1. State whether the following transactions, will improve, decline or will have no change on the Debt to Capital Employed Ratio. Also give reasons for the same.
(i) Sale of Equipments costing ₹ 10,00,000 for ₹ 9,00,000.
(ii) Purchased Goods on Credit for ₹ 1,00,000 for a credit of 15 months, assuming operating cycle is of 18 months.
(iii) Conversion of Debentures into Equity Shares of ₹ 2,00,000.
(iv) Tax Refund of ₹ 50,000 during the year. *(2022-23)*

11. Calculate proprietary ratio, if total assets to debt ratio is 2:1. Debt is ₹5,00,000. Equity share capital is 0.5 times of debt. Preference share capital is 25% of equity share capital. Net profit before tax is ₹10,00,000 and rate of tax is 40%. *(Term-I, 2021-22)*

5.8 Activity (or Turnover) Ratios

MCQ

12. Given below are two statements, one labelled as Assertion (A) and the other labelled as Reason (R) :
Assertion (A) : The focus of calculation of working capital revolves around managing the operating cycle of the business.
Reason (R) : It is because the concept of operating cycle is required to ascertain the liquidity of assets and urgency of payments to liabilities.
In the context of the above two statements, which of the following is correct?
(a) Both (A) and (R) are correct.
(b) Both (A) and (R) are incorrect.
(c) (A) is correct but (R) is incorrect.
(d) (A) is incorrect but (R) is correct. *(Term-I, 2021-22)*

13. If total sales is ₹2,50,000 and credit sales is 25% of cash sales.
The amount of credit sales is:
(a) ₹50,000 (b) ₹2,50,000
(c) ₹16,000 (d) ₹3,00,000 *(Term-I, 2021-22)*

14. What will be the amount of gross profit of a firm if its average inventory is ₹80,000, inventory turnover ratio is 6 times, and the selling price is 25% above cost price?
(a) ₹1,20,000 (b) ₹1,60,000
(c) ₹2,00,000 (d) None of the above *(Term-I, 2021-22)*

15. Given below are two statements, one labelled as Assertion (A) and the other labelled as Reason (R):
Assertion (A) : Increasing the value of closing inventory increases profit.
Reason (R) : Increasing the value of closing inventory reduces cost of goods sold.
In the context of the above two statements, which of the following is correct?
(a) Both (A) and (R) are correct.
(b) Both (A) and (R) are incorrect.
(c) (A) is correct but (R) is incorrect.
(d) (A) is incorrect but (R) is correct. *(Term-I, 2021-22)*

16. The ________ may indicate that the firm is experiencing stock outs and lost sales.
(a) average payment period
(b) inventory turnover ratio
(c) average collection
(d) quick ratio *(2020-21)* U

17. The two basic measures of operational efficiency of a company are respectively :
(a) Inventory Turnover Ratio and Working Capital Turnover Ratio
(b) Liquid Ratio and Operating Ratio

(c) Liquid Ratio and Current Ratio
(d) Gross Profit Margin and Net Profit Margin *(2020-21)*

5.9 Profitability Ratios

MCQ

18. Which one of the following is correct?
(i) Quick Ratio can be more than Current Ratio.
(ii) High Inventory Turnover ratio is good for the organisation, except when goods are bought in small lots or sold quickly at low margins to realise cash.
(iii) Sum of Operating Ratio and Operating Profit ratio is always 100%.
(a) All are correct.
(b) Only (i) and (iii) are correct.
(c) Only (ii) and (iii) are correct.
(d) Only (i) and (ii) are correct *(2022-23)*

19. Given below are two statements, one labelled as Assertion (A) and the other labelled as Reason (R):
Assertion (A) : A high operating ratio indicates a favourable position.
Reason (R) : A high operating ratio leaves a high margin to meet non-operating expenses.
In the context of the above two statements, which of the following is correct?
(a) Both (A) and (R) are correct and (R) correctly explains (A).
(b) Both (A) and (R) are correct but (R) does not explain (A).
(c) Both (A) and (R) are incorrect.
(d) (A) is correct but (R) is incorrect. *(Term-I, 2021-22)*

SA II (3/4 marks)

20. Determine Return on Investment and Net Assets Turnover ratio from the following information:-
Profits after tax were ₹ 6,00,000; tax rate was 40%; 15% Debentures were of ₹ 20,00,000; 10% Bank Loan was ₹ 20,00,000; 12% Preference Share Capital ₹30,00,000; Equity Share Capital ₹ 40,00,000; Reserves and Surplus were ₹ 10,00,000; Sales ₹3,75,00,000 and Sales Return ₹ 15,00,000. *(2022-23)*

Detailed SOLUTIONS

Previous Years' CBSE Board Questions

1. The technique identified in the above statement is "ratio analysis".
Limitations of Ratio Analysis are:
(i) Ignores Price-level Changes: The financial accounting is based on stable money measurement principle. It implicitly assumes that price level changes are either non-existent or minimal. But the truth is otherwise. We are normally living in inflationary economies where the power of money declines constantly. A change in the price level makes analysis of financial statement of different accounting years meaningless because accounting records ignore changes in value of money.
(ii) Ignore Qualitative or Non-monetary Aspects: Accounting provides information about quantitative (or monetary) aspects of business. Hence, the ratios also reflect only the monetary aspects, ignoring completely the non-monetary (qualitative) factors.

2. (a) : Current Ratio is computed as Current Assets over Current Liabilities. It thus, signifies the ability of the firm to meet its short-term obligations as and when due by relying on the current assets including inventories as well.

3. (b) : Acid Test Ratio

4. (b) : Current ratio = $\frac{\text{Current Assets}}{\text{Current Liabilities}}$

$$\frac{3}{1} = \frac{\text{Current Assets}}{4,00,000}$$

∴ Current Assets = ₹(4,00,000 × 3) = ₹12,00,000

5. (c) : Liquidity Ratio

6. Decline, as both Current Assets and Current Liabilities have increased due to the purchase of goods on credit. Purchase of goods on credit will increase the stock and thus increase the credit.

7. (i) Improve the ratio because payment to creditors will decrease both Current assets and Current Liabilities by the same amount.
(ii) Reduce the ratio because both Current Assets and Current Liabilities will increase by the same amount.

8. (i) Purchase of loose tools will reduce the quick ratio of the company because when company purchases loose tools, quick assets will reduce but liability remains unchanged.
(ii) Quick assets have decreased by ₹500 but current liabilities have not changed. Therefore, quick ratio will decrease.
(iii) Sale of goods on credit will increase the total of the quick assets. Therefore the quick ratio will increase and liability will remain unchanged.
(iv) Quick assets are decreased by 5,000 (as cash is going out) and current liabilities are also decreased (since accepted bill is honoured). So quick ratio will reduce.

9.

	Change	Reasons
(i)	Increase / Decrease	If redemption of debentures takes place in the current year where outstanding debentures is considered as current liability in such case, ratio will increases. Alternatively, redemption of debentures will decrease cash but current liabilities will remain the same.

(ii)	No Change	It will increase cash and decrease debtors with the same amount. No change in current assets and current liabilities.
(iii)	No Change	Both current assets and current liabilities are not affected.
(iv)	No Change	No change in current assets and current liabilities. Because increase in one current liability results in decrease in another current liability with the same amount.

10.

	Change	Reasons
(i)	Decrease	Liquid assets will decrease with no change on current liabilities.
(ii)	No change	Cash will increase but trade receivables will decrease by the same amount without affecting the liquid assets.

11. (b) : Solvency

12. (b) : 3 times

13. (c) : Proprietary Ratio

14. (b) : A high debt equity ratio can be risky for the firm as it might not be able to honour its long-term payment obligations.
Therefore, both (A) and (R) are correct.

15. (b) : Net Profit after Tax = ₹6,00,000
Tax Rate = 40%

$$\text{Interest on long-term debt} = ₹\left(50,00,000 \times \frac{10}{100}\right)$$

$$= ₹5,00,000$$

Profit before Interest and Tax
= Net Profit + Tax + Interest on long-term debt

$$= ₹[6,00,000 + (6,00,000 \times \frac{40}{60}) + 5,00,000]$$

$$= ₹(6,00,000 + 4,00,000 + 5,00,000) = ₹15,00,000$$

Interest Coverage Ratio

$$= \frac{\text{Net Profit before Interest and Tax}}{\text{Interest on long - term debt}}$$

$$= \frac{15,00,000}{5,00,000} = 3 \text{ times}$$

16. Solvency of business means the ability of business to pay off the long term liabilities. Solvency ratios such as debt to equity ratio that helps the investors to know about the credibility which helps them to take rational investment decisions.

17. To solve the above cases firstly we assume the values.
Debt equity ratio = Debts / Equity = 2:1
(Let's suppose Debts = ₹8,00,000 and equity = ₹4,00,000)
(i) If a company obtained loan then debts will increase by ₹1,00,000 with same amount of equity, so debt equity ratio will increase.
(ii) If a company purchased machinery for cash it will neither affect on debts nor on equity. So debt equity will remain unchanged.
(iii) If a company redeemed debentures ,then debts will decrease which will result in decrease of debt equity ratio.
(iv) Issue of equity shares will increase equity which will result in decrease in debt equity ratio.

18. (a) Total Assets = Total Liabilities = Equity Share Capital + Long Term Borrowings + Surplus + General Reserve + Current Liabilities + Long term Provision
= ₹ 4,00,000 + ₹ 1,80,000 + ₹1,00,000 + ₹ 70,000 + ₹ 30, 000 + ₹ 1,20,000 = ₹ 9,00,000
Debt = Long term borrowings + Long term Provisions
= ₹ 1,80,000 + ₹ 1,20,000 = ₹3,00,000
Total Assets to Debt Ratio = Total Assets / Debt
= ₹ 9,00,000/ ₹ 3,00,000 = 3 : 1
(b) Issues of bonus shares will not change the ratio.

19. Total Assets to Debt Ratio = Total Assets/Long-term Debt
Total Assets = Fixed Assets + Current Assets
= ₹ 75,00,000 + ₹ 40,00,000 = ₹ 1,15,00,000
Long-term Debt = 12% debentures = ₹ 80,00,000
Total Assets to Debt Ratio = ₹ 1,15,00,000 / ₹ 80,00,000
= 1.44 : 1

20. $$\text{Proprietary Ratio} = \frac{\text{Shareholder's funds}}{\text{Total Assets}}$$

Shareholder's Funds = Non-Current Assets + Current Assets – Current Liabilities – Long-term Borrowings – Long-term Provisions
= ₹ 3,60,000 + ₹ 90,000 – ₹ 50,000 – ₹ 2,00,000 – ₹ 1,00,000 = ₹ 1,00,000
Total Assets = Non-Current Assets + Current Assets
= ₹ 3,60,000 + ₹ 90,000 = ₹ 4,50,000

$$\text{Proprietary Ratio} = \frac{₹\,1,00,000}{₹\,4,50,000} = 0.22:1$$

Commonly Made Mistake

- Sometimes, students get confused between only debts and total debts. So, proper value of debts should be calculated according to formula.

21 (c) : 7.2 times

22. (b) : Turnover ratios which are also commonly known as activity ratios indicate the pace at which the activities are being performed in the business like trade receivables turnover ratio, etc.

23. (a) : $$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100$$

$$\frac{10}{100} = \frac{\text{Gross Profit}}{2,00,000}$$

$$\frac{10}{100} = \frac{\text{Net Sales COGS}}{2,00,000}$$

$$\frac{10}{100} = \frac{2,00,000 - \text{COGS}}{2,00,000}$$

$$\text{Inventory Turnover Ratio} = \frac{\text{COGS}}{\text{Average Inventory}}$$

$$= \frac{1,80,000}{20,000} = 9 \text{ times}$$

24. (d) : Trade Receivables Turnover Ratio.

25. (b) : Interest Coverage Ratio.

26. False, because it tells us about how frequently we are able to convert our stock into sales.

27. Activity Ratio or Turnover Ratio indicates how efficiently the working capital and the inventory is being utilised to obtain the revenue from operations. Higher activity ratios means the better use of capital or resources of the business which in turn leads to higher profitability. The ratio under this head are Inventory Turnover Ratio, Debtor's Turnover Ratio, etc.

28. If Current Ratio = Current Assets / Current Liabilities = 2: 1

Then, 8,00,000 / Current Liabilities = 2

And **Current Liabilities = ₹4,00,000**

now, Quick Ratio = Quick assets / Current liabilities = 1.5 : 1

Quick assets = Current liabilities × 1.5

Quick assets = ₹6,00,000

Inventory = Current Assets – Quick Assets

Inventory = ₹2,00,000

Inventory Turnover Ratio = Cost of Goods sold / average inventory = 6 times

6 = Cost of Goods sold / 2,00,000

Cost of Goods sold = ₹12,00,000

If goods are sold at 25% profit on cost

Then, 12,00,000 × 25/100 = ₹3,00,000

Revenue from operations = cost of goods sold + gross profit

Revenue from operations = 12,00,000 + 3,00,000 = ₹15,00,000

29.

Trade Receivables Turnover Ratio	=	Net Credit Sales/Average Receivables
Cost of Revenue from Operations	=	₹4,80,000
Let Net Sales be	=	x
Gross Profit Ratio	=	Gross Profit/Net Sales × 100
20/100	=	x – 4,80,000/x
20x/100	=	x – 4,80,000
x	=	6,00,000
Net Sales of the firm is	=	₹6,00,000
Let the Cash Revenue from Operations	=	y
Credit Revenue from Operations	=	y + 2,00,000
Total Sales of the firm	=	Cash Sales + credit sales
6,00,000	=	(y + y + 2,00,000)
y	=	2,00,000
Cash Sales of the firm	=	₹2,00,000
Net Credit Sales	=	₹(2,00,000 + 2,00,000) = ₹4,00,000
Average Receivables	=	₹(4,00,000/8)
	=	₹50,000
Let Closing Trade Receivables be	=	z
Opening Trade Receivables	=	z/4
Average Trade Receivables	=	(Opening Trade Receivables + Closing Trade Receivables)/2
50,000	=	(z + z/4)/2
z	=	80,000

Therefore, Opening Trade Receivables and Closing Trade Receivables of the firm are ₹20,000 and ₹80,000 respectively.

30. Inventory turnover ratio

$$= \frac{\text{Cost of revenue from operations}}{\text{Average Inventory}}$$

For 2015-16,

Cost of revenue from operations $= \frac{100}{125} \times 50{,}00{,}000$

$= ₹\ 40{,}00{,}000$

Average Inventory

$$= \frac{\text{Opening Inventory} + \text{Closing Inventory}}{2}$$

$$= \frac{(7{,}00{,}000 - 2{,}00{,}000) + 7{,}00{,}000}{2} = ₹\ 6{,}00{,}000$$

Inventory turnover ratio $= \frac{40{,}00{,}000}{6{,}00{,}000} = 6.66$ times

For 2016 - 17,

Cost of revenue from operations $= \frac{100}{125} \times 75{,}00{,}000$

$= ₹\ 60{,}00{,}000$

Average Inventory $= \frac{7{,}00{,}000 + 17{,}00{,}000}{2} = ₹\ 12{,}00{,}000$

Inventory turnover ratio $= \frac{60{,}00{,}000}{12{,}00{,}000} = 5$ times.

31. (a) : Profitability ratios

32. (c) : We know,
Operating Ratio + Operating Profit Ratio = 100%
So, Operating Profit Ratio = 100 – Operating Ratio
= (100 – 65) = 35%

33. (c) : Credit revenue from operations = ₹16,00,000
If cash revenue from operations is 20% of total revenue from operations then credit revenue from operations will be 80% of it.

$\therefore$ Credit revenue from operations = $\frac{80}{100} \times$ Total Sales

$16,00,000 \times \frac{100}{80}$ = Total Sales

Total Sales = ₹20,00,000

Gross Profit Ratio = $\frac{\text{Gross Profit}}{\text{Net Sales}} \times 100$

$\frac{25}{100} = \frac{\text{Gross Profit}}{20,00,000}$

Gross Profit = ₹$\left(\frac{25}{100} \times 20,00,000\right)$ = ₹5,00,000

Net Profit = Gross Profit – Indirect Expenses
= ₹(5,00,000 – 50,000) = ₹4,50,000

Net Profit Ratio = $\frac{\text{Net Profit}}{\text{Net Sales}} \times 100$

$= \frac{4,50,000}{20,00,000} \times 100 = 22.5\%$

Commonly Made Mistake

- Sometimes, students get confused which item has to be deducted and which has to be added, while calculating accounting ratios, so proper knowledge is required.

34. (c) : Profitability ratios are calculated to ascertain the earning capacity of the business. And solvency ratios determine the ability to pay the long-term debt.
Therefore, (A) is correct but (R) is incorrect.

35. (c) : Gross Profit Ratio

$= \frac{\text{Gross Profit}}{\text{Revenue from Operations}} \times 100$

$\frac{25}{100} = \frac{\text{Gross Profit}}{60,00,000}$

$\Rightarrow$ ₹15,00,000 = Gross Profit

36. (b) : We know that,
Operating Ratio + Operating Profit Ratio = 100
So, Operating Ratio = 100 - Operating Profit Ratio
However, it is computed to know the amount of revenue from sales spent on operating the business *i.e.*, operating cost like selling and administrative expenses, etc.
Therefore, (A) is correct but (R) is incorrect.

37. 25%

38.

Current Assets		=	₹2,00,000
Current Ratio of the firm		=	Current Assets/Current Liabilities
	2	=	2,00,000 / Current Liabilities
Current Liabilities		=	₹1,00,000
Quick Ratio		=	Quick Assets/Current Liabilities
	1.5	=	Quick Assets/1,00,000
Quick Assets		=	₹1,50,000
We know that, Quick Assets		=	Current Assets - Stock
Using the above formula, Stock		=	Current Assets - Quick Assets
			₹ (2,00,000 – 1,50,000)
		=	₹50,000
Assuming Stock to be Average Stock			
Inventory Turnover Ratio		=	Cost of Goods Sold/Average Stock
	6	=	Cost of Goods sold/50,000
Cost of Goods Sold		=	₹3,00,000
Profit on Sale of Goods		=	₹(3,00,000 × 25/100) = ₹75,000
Revenue from Operations		=	Cost of Goods Sold + Gross Profit
			₹(3,00,000 + 75,000) = ₹3,75,000

39. (a) Current Ratio = 2.1 and
Current Assets = ₹ 8,00,000
Current Ratio = Current Assets/ Current Liabilities = 2 : 1
Therefore, Current Liabilities = ₹4,00,000
Quick Ratio = Quick Assets/ Current Liabilities = 1.5 : 1
Therefore, Quick Assets = ₹ 6,00,000
Inventory = Current Assets – Quick Assets
= ₹ 8,00,000 – ₹ 6,00,000
= ₹ 2,00,000
Inventory Turnover Ratio = 6 times
Cost of Revenue from Operations / Average Inventory = 6 times
Cost of Revenue from Operations / ₹ 2,00,000 = 6
Cost of Revenue from Operations = ₹ 12,00,000

Gross Profit is 25% on cost = 25% of ₹ 12,00,000

= ₹3,00,000

So, Revenue from Operations = ₹ 12,00,000 + ₹3,00,000

= ₹ 15,00,000

(b) Purchase of goods costing ₹ 20,000 will not change the Operating Ratios.

40. (a) Revenue from Operations = ₹6,80,000

Rate of gross profit on cost = 25%

∴ Rate of gross profit on selling price = 20%

(b) Gross Profit = $6,80,000 \times \frac{20}{100}$ = ₹1,36,000

(A – B) Cost of Revenue from Operations = ₹ 5,44,000

Operating Ratio

$$= \frac{\text{Cost of Revenue from op.} + \text{Selling Expenses} + \text{Administrative Expenses}}{\text{Revenue from Operations}} \times 100$$

$$= \frac{(5,44,000+1,44,000+73,000)}{6,80,000} \times 100 = \frac{7,61,000}{6,80,000} \times 100$$

= 111.91%

41. Return on Investment = Net profit before Interest, Tax and Dividend/Capital Employed × 100

Net Profit before Interest, Tax and Dividend = ₹ 14,50,000

Capital Employed = Fixed Assets + Current Assets – Current Liabilities

= ₹ 75,00,000 + ₹ 40,00,000 – ₹ 27,00,000

= ₹ 88,00,000

Return on Investment = ₹14,50,000 / ₹ 88,00,000 × 100

= 16.47%

42. (i) Net Profit Ratio = Net Profit after Tax/Revenue from Operations × 100

As on 31st March, 2014

= 12,00,000 / 30,00,000 × 100 = 40%

(ii) Values :

(I) Share of employees in excess profits.

(II) Treating employees as a part of the company.

CBSE Sample Questions

1. Variations of accounting practice as limitation is highlighted in the given statement.

Two other limitations are as follows:

(a) Ignores Price-level Changes: The financial accounting is based on stable money measurement principle. It implicitly assumes that price level changes are either non-existent or minimal. But the truth is otherwise. We are normally living in inflationary economies where the power of money declines constantly. A change in the price-level makes

Ignore Qualitative or Non-monetary Aspects: Accounting provides information about quantitative (or monetary) aspects of business.

Hence, the ratios also reflect only the monetary aspects, ignoring completely the non-monetary (qualitative) factors. analysis of financial statement of different accounting years meaningless because accounting records ignore changes in value of money.

(b) **Forecasting :** Forecasting of future trends based only on historical analysis is not feasible. Proper forecasting requires consideration of non-financial factors as well. (3)

2. (a) : (ii), (iii) and (v) only (0.80)

3. (d) : liquidity, solvency and profitability (0.80)

4. (b) : Only (i), (ii) and (iv) are correct. (0.80)

5. (d) : Only (ii) and (iii) are correct. (0.80)

6. (a) : Only (i) is correct. (1)

7. 1 : 1 (1)

8. (b) : 3 times (1)

9. (c) : Proprietary ratio. (0.80)

10. (i) Ratio will improve. Reason – Capital Employed will decrease and Debt will remain same

(ii) Ratio will remain same. Reason – Both Debt and Capital Employed will remain same.

(iii) Ratio will decline. Reason – Debt will decrease but Capital Employed will remain same.

(iv) Ratio will decline. Reason – Capital Employed will increase but Debt will remain same. (3)

11. Proprietary Ratio = Proprietor's Fund /Total Assets

Total Assets = Debt × 2 (0.5)

= ₹5,00,000 × 2

= ₹10,00,000 (1)

Proprietor's Funds = Equity Share Capital + Preference Share Capital + Surplus

= (5,00,000 × 0.5) + (5,00,000 × 0.5 × 25%) + (10,00,000 – 40% of 10,00,000)

= 2,50,000 + 62,500 + 6,00,000

= ₹9,12,500 (1)

Proprietary Ratio = 9,12,500 / 10,00,000

= 0.912 : 1 (0.5)

12. (b) : Both (A) and (R) are incorrect. (0.80)

13. (a) : ₹50,000 (0.80)

14. (a) : ₹1,20,000. (0.80)

15. (a) : Both (A) and (R) are correct. (0.80)

16. (b) : Inventory turnover ratio (1)

17. (a) : Inventory Turnover Ratio and Working Capital Turnover Ratio (1)

18. (c) : Only (ii) and (iii) are correct (1)

19. (c) : Both (A) and (R) are incorrect. (0.80)

20. Return on Investment = EBIT / Capital Employed x 100

= 15,00,000/1,20,00,000 x 100 = 12.5%

Capital Employed = 12% Preference Share Capital + Equity Share Capital + Reserves and Surplus + 15% Debentures + 10% Bank Loan

= 30,00,000 + 40,00,000 + 10,00,000 + 20,00,000 + 20,00,000 = ₹ 1,20,00,000

EBIT = Profits after Tax + Tax + Interest

= 6,00,000 + 4,00,000 + 5,00,000 = ₹ 15,00,000

Net Assets Turnover ratio = Revenue from Operations/ Capital Employed = 3,60,00,000/1,20,00,000 = 3 times (3)