Ratio analysis questions and answers for interview prep

Liquidity Ratios

1. **Q:** Company A: Current assets = ₹450,000; Current liabilities = ₹300,000. Compute **Current Ratio**.
   Formula: Current Ratio = Current Assets ÷ Current Liabilities
   Calc: 450,000 ÷ 300,000 = 1.50
   Answer: 1.50

2. **Q:** Company B: Cash ₹20,000; Marketable securities ₹10,000; Receivables ₹70,000; Inventory ₹50,000; Current liabilities ₹100,000. Compute Quick Ratio.
   Formula: Quick Ratio = (Cash + Marketable Securities + Receivables) ÷ Current Liabilities
   Calc: (20,000+10,000+70,000) ÷ 100,000 = 100,000 ÷ 100,000 = 1.00
   Answer: 1.00

3. **Q:** Company C: Cash ₹15,000; Current liabilities ₹60,000. Compute Cash Ratio.
   Formula: Cash Ratio = Cash ÷ Current Liabilities
   Calc: 15,000 ÷ 60,000 = 0.25
   Answer: 0.25

4. **Q:** Company D: Current assets ₹200,000; Current liabilities ₹150,000. Compute **Working Capital**.
   Formula: Working Capital = Current Assets − Current Liabilities
   Calc: 200,000 − 150,000 = ₹50,000
   Answer: ₹50,000

5. **Q:** Company E: Current assets ₹120,000; Current liabilities ₹80,000. Compute **Current Ratio** and **Working Capital**.
   Calc (Current Ratio): 120,000 ÷ 80,000 = 1.50
   Calc (Working Capital): 120,000 − 80,000 = ₹40,000
   Answer: Current Ratio **1.50**; Working Capital **₹40,000**

6. **Q:** Company F: Cash ₹5,000; Marketable securities ₹2,000; Receivables ₹18,000; Inventory ₹25,000; Current liabilities ₹30,000. Compute Quick Ratio.
   Calc: (5,000+2,000+18,000) ÷ 30,000 = 25,000 ÷ 30,000 = **0.83** (rounded)
   Answer: 0.83

7. **Q:** Company G: Current assets ₹500,000; Current liabilities ₹400,000. Compute **Current Ratio** and **Working Capital**.
   Calc (Current Ratio): 500,000 ÷ 400,000 = 1.25
   Calc (Working Capital): 500,000 − 400,000 = ₹100,000
   Answer: Current Ratio **1.25**; Working Capital **₹100,000**

8. **Q:** Company H: Cash ₹50,000; Current liabilities ₹250,000. Compute **Cash Ratio**.
   Calc: 50,000 ÷ 250,000 = 0.20
   Answer: 0.20

9. **Q:** Company I: Current assets ₹90,000; Current liabilities ₹60,000. Compute **Current Ratio**.
   Calc: 90,000 ÷ 60,000 = 1.50
   Answer: 1.50

10. **Q:** Company J: Current assets ₹300,000; Inventory ₹80,000; Receivables ₹100,000; Cash ₹20,000; Current liabilities ₹220,000. Compute Quick Ratio.
    Calc: (Cash + Receivables + Marketable securities (none here)) ÷ CL = (20,000+100,000) ÷ 220,000 = 120,000 ÷ 220,000 = 0.55
    Answer: 0.55

Profitability Ratios

1. **Q:** Firm A: Revenue ₹1,200,000; COGS ₹720,000. Compute **Gross Margin %**.
   Formula: Gross Margin % = (Revenue − COGS) ÷ Revenue ×100
   Calc: (1,200,000−720,000) ÷ 1,200,000 ×100 = 480,000 ÷ 1,200,000 ×100 = 40.00%
   Answer: 40.00%

2. **Q:** Firm B: EBIT ₹150,000; Revenue ₹1,000,000. Compute **Operating Margin %**.
   Calc: 150,000 ÷ 1,000,000 ×100 = 15.00%
   Answer: 15.00%

3. **Q:** Firm C: Net Income ₹90,000; Revenue ₹600,000. Compute **Net Profit Margin %**.
   Calc: 90,000 ÷ 600,000 ×100 = 15.00%
   Answer: 15.00%

4. **Q:** Firm D: Net Income ₹80,000; Total Assets ₹1,000,000. Compute **ROA %**.
   Calc: 80,000 ÷ 1,000,000 ×100 = 8.00%
   Answer: 8.00%

5. **Q:** Firm E: Net Income ₹120,000; Equity ₹600,000. Compute **ROE %**.
   Calc: 120,000 ÷ 600,000 ×100 = 20.00%
   Answer: 20.00%

6. **Q:** Firm F: Revenue ₹2,000,000; Gross Profit ₹800,000. Compute **Gross Margin %**.
   Calc: 800,000 ÷ 2,000,000 ×100 = 40.00%
   Answer: 40.00%

7. **Q:** Firm G: EBIT ₹200,000; Interest ₹20,000; Tax ₹36,000; Revenue ₹1,500,000. Compute **Net Profit Margin %** (Net Income = EBIT − Interest − Tax).
   Calc (Net Income): 200,000 − 20,000 − 36,000 = 144,000

Calc (Net Margin): 144,000 ÷ 1,500,000 ×100 = 9.60%
Answer: Net Income **₹144,000**; Net Margin **9.60%**

8. **Q:** Firm H: Net Income ₹50,000; Assets ₹400,000. Compute **ROA %**.
   Calc: 50,000 ÷ 400,000 ×100 = 12.50%
   Answer: 12.50%

9. **Q:** Firm I: Net Income ₹200,000; Equity ₹800,000. Compute **ROE %**.
   Calc: 200,000 ÷ 800,000 ×100 = 25.00%
   Answer: 25.00%

10. **Q:** Firm J: Revenue ₹900,000; COGS ₹540,000; Net Income ₹81,000. Compute **Gross Margin %** and **Net Margin %**.
    Calc (Gross Margin): (900,000−540,000) ÷ 900,000 ×100 = 360,000 ÷ 900,000 ×100 = 40.00%
    Calc (Net Margin): 81,000 ÷ 900,000 ×100 = 9.00%
    Answer: Gross Margin **40.00%**; Net Margin **9.00%**

Solvency / Leverage Ratios

1. **Q:** Company A: Total Debt ₹400,000; Total Equity ₹600,000. Compute **Debt-to-Equity**.
   Calc: 400,000 ÷ 600,000 = 0.67
   Answer: 0.67

2. **Q:** Company B: Total Debt ₹300,000; Total Assets ₹900,000. Compute **Debt Ratio**.
   Calc: 300,000 ÷ 900,000 = 0.33 (33%)
   Answer: 0.33

3. **Q:** Company C: EBIT ₹120,000; Interest expense ₹30,000. Compute **Interest Coverage Ratio**.
   Calc: 120,000 ÷ 30,000 = 4.00
   Answer: 4.00

4. **Q:** Company D: Long-term Debt ₹250,000; Equity ₹500,000. Compute **Debt-to-Equity**.
   Calc: 250,000 ÷ 500,000 = 0.50
   Answer: 0.50

5. **Q:** Company E: Total Debt ₹150,000; Total Assets ₹500,000. Compute **Debt Ratio**.
   Calc: 150,000 ÷ 500,000 = 0.30 (30%)
   Answer: 0.30

6. **Q:** Company F: EBIT ₹80,000; Interest ₹20,000. Compute **Interest Coverage**.
   Calc: 80,000 ÷ 20,000 = 4.00
   Answer: 4.00

7. **Q:** Company G: Total Debt ₹1,000,000; Equity ₹2,000,000. Compute **Debt-to-Equity**.
   Calc: 1,000,000 ÷ 2,000,000 = 0.50
   Answer: 0.50

8. **Q:** Company H: Total Debt ₹200,000; Assets ₹400,000. Compute **Debt Ratio**.
   Calc: 200,000 ÷ 400,000 = 0.50 (50%)
   Answer: 0.50

9. **Q:** Company I: EBIT ₹300,000; Interest ₹50,000. Compute **Interest Coverage**.
   Calc: 300,000 ÷ 50,000 = 6.00
   Answer: 6.00

10. **Q:** Company J: Total Debt ₹450,000; Equity ₹550,000. Compute **Debt-to-Equity**.
    Calc: 450,000 ÷ 550,000 = 0.82 (rounded)
    Answer: 0.82

Efficiency Ratios

1. **Q:** RetailCo: Sales ₹1,200,000; Average Inventory ₹150,000. Compute **Inventory Turnover** and **DIO (Days Inventory Outstanding)**.
   Calc (Inventory Turnover): 1,200,000 ÷ 150,000 = 8.00
   Calc (DIO): 365 ÷ 8 = 45.63 days
   Answer: Inventory Turnover **8.00**; DIO **45.63 days**

2. **Q:** TechCo: Net Credit Sales ₹800,000; Avg Receivables ₹100,000. Compute **Receivables Turnover** and **DSO**.
   Calc (Receivables Turnover): 800,000 ÷ 100,000 = 8.00
   Calc (DSO): 365 ÷ 8 = 45.63 days
   Answer: Receivables Turnover **8.00**; DSO **45.63 days**

3. **Q:** ManufCo: COGS ₹900,000; Avg Inventory ₹200,000. Compute **Inventory Turnover**.
   Calc: 900,000 ÷ 200,000 = 4.50
   Answer: 4.50

4. **Q:** ServiceCo: Sales ₹600,000; Total Assets ₹400,000. Compute **Asset Turnover**.
   Calc: 600,000 ÷ 400,000 = 1.50
   Answer: 1.50

5. **Q:** RetailCo2: COGS ₹700,000; Avg Inventory ₹70,000. Compute **Inventory Turnover** and **DIO**.
   Calc (Inv Turnover): 700,000 ÷ 70,000 = 10.00
   Calc (DIO): 365 ÷ 10 = 36.50 days
   Answer: Inventory Turnover **10.00**; DIO **36.50 days**

6. **Q:** BizCo: Net Sales ₹1,000,000; Avg Receivables ₹125,000. Compute **Receivables Turnover**.

Calc: 1,000,000 ÷ 125,000 = 8.00
Answer: 8.00

7. **Q:** FirmX: Sales ₹2,000,000; Assets ₹1,000,000. Compute **Asset Turnover**.
   Calc: 2,000,000 ÷ 1,000,000 = 2.00
   Answer: 2.00

8. **Q:** TraderCo: Purchases ₹500,000; Avg Payables ₹50,000. Compute **Payables Turnover** and **DPO**.
   Calc (Payables Turnover): 500,000 ÷ 50,000 = 10.00
   Calc (DPO): 365 ÷ 10 = 36.50 days
   Answer: Payables Turnover **10.00**; DPO **36.50 days**

9. **Q:** RetailCo3: Sales ₹1,500,000; Avg Inventory ₹120,000. Compute **Inventory Turnover**.
   Calc: 1,500,000 ÷ 120,000 = 12.50
   Answer: 12.50

10. **Q:** OpsCo: Net Sales ₹900,000; Avg Receivables ₹90,000. Compute **Receivables Turnover** and **DSO**.
    Calc: 900,000 ÷ 90,000 = 10.00; DSO = 365 ÷ 10 = 36.50 days
    Answer: Receivables Turnover **10.00**; DSO **36.50 days**

Market Ratios

1. **Q:** Co A: Net Income ₹500,000; Shares Outstanding 100,000. Compute **Basic EPS**.
   Calc: 500,000 ÷ 100,000 = ₹5.00 per share
   Answer: ₹5.00

2. **Q:** Co B: Market Price per share ₹250; EPS ₹5. Compute **P/E ratio**.
   Calc: 250 ÷ 5 = 50.00
   Answer: 50.00x

3. **Q:** Co C: Annual Dividend per share ₹4; Market Price ₹200. Compute **Dividend Yield %**.
   Calc: (4 ÷ 200) ×100 = 2.00%
   Answer: 2.00%

4. **Q:** Co D: Total Equity ₹2,000,000; Shares Outstanding 200,000. Compute **Book Value per Share**.
   Calc: 2,000,000 ÷ 200,000 = ₹10.00
   Answer: ₹10.00

5. **Q:** Co E: Market Cap ₹50,000,000; Revenue ₹20,000,000. Compute **Market Cap / Sales**.

Calc: 50,000,000 ÷ 20,000,000 = 2.50
Answer: 2.50x

6. **Q:** Co F: Net Income ₹1,200,000; Shares 300,000. Compute **EPS**.
   Calc: 1,200,000 ÷ 300,000 = ₹4.00
   Answer: ₹4.00
7. **Q:** Co G: Price ₹120; EPS ₹3. Compute **P/E**.
   Calc: 120 ÷ 3 = 40.00
   Answer: 40.00x
8. **Q:** Co H: Dividend ₹2; Price ₹50. Compute **Dividend Yield %**.
   Calc: (2 ÷ 50) ×100 = 4.00%
   Answer: 4.00%
9. **Q:** Co I: Equity ₹5,000,000; Shares 250,000. Compute **Book Value per Share**.
   Calc: 5,000,000 ÷ 250,000 = ₹20.00
   Answer: ₹20.00
10. **Q:** Co J: Market Cap ₹10,000,000; Revenue ₹4,000,000. Compute **Market Cap / Sales**.
    Calc: 10,000,000 ÷ 4,000,000 = **2.50**
    Answer: 2.50x

Activity Ratio Questions

Q1. Inventory Turnover Ratio

Company A has:

COGS = ₹9,00,000

Opening Inventory = ₹1,80,000

Closing Inventory = ₹2,20,000

Find: Inventory Turnover Ratio.

Solution:
Average Inventory = (1,80,000 + 2,20,000) / 2 = **₹2,00,000**
Inventory Turnover = COGS / Avg Inventory
= 9,00,000 / 2,00,000
= **4.5 times**

Q2. Days Inventory Outstanding (DIO)

Using the previous question's inventory turnover of **4.5 times**, compute DIO.

Solution:
DIO = 365 / 4.5 = **81.1 days**

Q3. Receivables Turnover Ratio

Company B:

Credit Sales = ₹24,00,000

Average Accounts Receivable = ₹4,00,000

Compute Receivables Turnover.

Solution:
Receivables Turnover = 24,00,000 / 4,00,000 = **6 times**

Q4. Days Sales Outstanding (DSO)

Using turnover of **6 times**, compute DSO.

Solution:
DSO = 365 / 6 = **60.8 days**

Q5. Payables Turnover Ratio

Company C:

Credit Purchases = ₹12,00,000

Average Accounts Payable = ₹2,00,000

Compute Payables Turnover.

Solution:
Payables Turnover = 12,00,000 / 2,00,000 = **6 times**

Q6. Days Payable Outstanding (DPO)

Using turnover of **6**, compute DPO.

Solution:
DPO = 365 / 6 = **60.8 days**

Q7. Total Asset Turnover

Company D:

Net Sales = ₹50,00,000

Total Assets = ₹25,00,000

Compute Asset Turnover.

Solution:
Asset Turnover = 50,00,000 / 25,00,000 = **2 times**

Q8. Fixed Asset Turnover

Company E:

Sales = ₹40,00,000

Net Fixed Assets = ₹16,00,000

Compute FAT.

Solution:
FAT = 40,00,000 / 16,00,000 = **2.5 times**

Q9. Working Capital Turnover

Company F:

Sales = ₹30,00,000

Current Assets = ₹12,00,000

Current Liabilities = ₹7,00,000

Compute WCT.

Solution:
Working Capital = 12,00,000 – 7,00,000 = **₹5,00,000**
Working Capital Turnover = 30,00,000 / 5,00,000 = **6 times**

Q10. Operating Cycle (OC)

Company G has:

DIO = 70 days

DSO = 50 days

DPO = 40 days

Compute **Operating Cycle**.

Solution:
OC = DIO + DSO – DPO
= 70 + 50 – 40
= **80 days**

All the best! Hope this helps!