Coursera, Foundations of Management Specialization

Operational Finance: Building a Robust Business

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Quiz 2 Answers & Explanations

For questions 1 to 5: A commercial company initially sells €600 a year. Sales are uniform. COGS = 70% of sales.

1. If receivables = €200, what are the days of collection?

    a) 60 days
    b) 120 days
    c) 30 days
    d) 90 days

Answer: The correct answer is b). If receivables are €200 and annual sales are €600, that means receivables are one third of annual sales. Therefore, if we calculate the days of collection, they would be 4 months, or 120 days.

2. If inventory = €105, what are the days of inventory?

    a) 60 days
    b) 90 days
    c) 120 days
    d) 180 days

Answer: The correct answer is b). Inventory is at COGS price. Annual sales are €600 and COGS is 70% of sales, so annual COGS are €420. €105 in inventory is one fourth of annual COGS, which would be 3 months, or 90 days.

3. The days of collection change to 90 days. You will therefore have in receivables:

    a) €100
    b) €250
    c) €150
    d) €300

Answer: The correct answer is c). If days of collection now are 90, this is one quarter of a year. If annual sales are €600, then one quarter is €150.

4. If sales now grow 20% and days of collection are 120 like in question 1, then:

   a) Receivables will not change; they will stay at €200.
   b) Receivables also grow 20% and thus will be €240.
   c) Receivables also grow 20%, and thus will be €280.
   d) The company is doing better, and receivables will actually decrease 20%.

Answer: The correct answer is b). If days of collection do not change, then receivables grow the same as sales. Another way of thinking about it is: sales are now 20% more than €600, so €720. If days of collection are 120 (one third of the year), then receivables will be one third of annual sales, €720/3 = €240.

5. Imagine now that sales are €720 like in the previous question, days of collection are 120 and days of inventory are 90. The company manages a just-in-time delivery that reduces dramatically days of inventory to 10. At the same time, the marketing department, to win new customers and reward existing customers, increases the days of collection to 200. Therefore:

   a) The needs of financing do not change, given that the decrease of inventory days (80) are compensated with the increase of collection days (80).
   b) The need of financing increases.
   c) We will need to use less credit, because the need of financing decreases.
   d) This fact has nothing to do with needs to finance operations.

Answer: The correct answer is b). The need of financing increase, because even though the decrease in days of inventory are the same as increase of days in collection, the collection is at *sale* price, but inventory at *COGS* price (lower than sale price).

6. When we do a forecast of the P&L:

   a) We don't need to make assumptions, only for the balance sheet.
   b) We always first make a forecast of sales.
   c) We only start with a P&L forecast if we have finished with the balance sheet forecast.
   d) The line of credit in the P&L is always below the gross margin.

Answer: The correct answer is b). To make a forecast of the P&L we always have to start forecasting sales, because everything else follows after that assumption.

7. When doing a forecast of the Balance Sheet:

   a) We start with credit lines and cash to make sure financing is secured.
   b) Fixed assets depend on the amount of credit.
   c) Receivables, inventory, and payables are always the last thing we fill in.
   d) Cash and credit are always the last items we fill in.

Answer: The correct answer is d). Remember, cash and credit act as a cushion. If you calculate A' as the sum of total assets minus cash and L' as the sum of total liabilities minus credit, and A'>L', you will need credit. This will allow you to know exactly how much credit you will need to request in order to balance the Balance Sheet. If on the other hand L'>A', you have extra cash and that is what is balancing the Balance Sheet.

8. We use cash or credit as a figure to plug in in order to balance the Balance Sheet. If total assets > (total liabilities + equity), where will the difference go?

   a) Cash
   b) Credit

Answer: The correct answer is b). We have more assets than liabilities, so we would need to use credit to balance the Balance sheet and finance the assets.

9. If a company invests as much in fixed assets as it charges in the depreciation per year, then:

   a) The fixed assets in the balance sheet will increase.
   b) The fixed assets in the balance sheet will remain the same.
   c) The fixed assets in the balance sheet will decrease.

Answer: The correct answer is b). If we invest the same amount as depreciation, the fixed assets will remain the same, given that FA(t+1) = FA(t) – Depreciation + Investment in FA(t+1).

10. If equity in 2015 = €600, net income in 2016 = €200 and dividends paid in 2016 = €50, what is the equity at the end of 2016?

   a) €800
   b) €750
   c) €550
   d) €600

Answer: The correct answer is b). E(t+1) = E(t) + NI(t+1) – Dividends(t); E(2016) = €600 + €200 - €50.

11. If long-term debt is €800 in 2015, and I pay back 10% every year of the original €1,000 loan that I received in 2013, and in 2016 I ask for a new loan of €100, then the total amount in long-term debt at the end of 2016 will be:

   a) €700
   b) €750
   c) €800
   d) €850

Answer: The correct answer is c). If the loan started in 2013 with €1,000, and we amortize 10% every year, then it was €900 in 2014 and €800 in 2015, and should be €700 in 2016. But because we ask for a new loan in 2016, the total long-term debt will be €700 + €100 = €800.