Foundations of Management Specialization

Accounting: Making Sound Decisions

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Quiz 2 Answers & Explanations

1. Which of the following statements is correct?
   a) The income generated by a company as a result of profitable operations during a period is added to the Share Capital account in Owners' Equity.
   b) The difference between sales and cost of sales is called Net Profit.
   c) The final line item in an income statement is called Net Income, Net Profit (or Net Loss).
   d) Operating Income is the same as Earnings Before Interest, Depreciation and Amortization (EBITDA).

Answer: The correct answer is c).

2. Which of the following statements is incorrect?
   a) Revenues in a period are not necessarily the same as customer cash receipts in that period.
   b) Expenses of a period are not necessarily the same as cash payments in that period.
   c) When an asset is consumed in the operations of the business, an expense is incurred.
   d) Revenues are decreases in owners' equity as a result of operations.

Answer: The correct answer is d). Revenues are not decreases in owner's equity as a result of operations, but increases. Statements "a", "b" and "c" are true.

3. Which of the following statements is correct?
   a) The official accounting period is called fiscal year, but financial statements (i.e. balance sheet and income statement) can be prepared for shorter periods.
   b) If revenue is recognized before the cash receipt, an asset (Accounts Receivable) decreases.
   c) The cost of the products sold is not an expense.
   d) Accounts Payable increase when the company purchases goods and pays them cash.

Answer: The correct answer is a). The rest of statements are not true.

Understanding the difference between cash and profit (questions 4 – 5):

The ABC Company recognizes credit sales of €100,000. The cost of the goods sold is €60,000. Answer the following two questions:

4. What is the effect of the transaction described above on the cash account?

   a) Cash increases by €100,000.
   b) Cash decreases by €60,000.
   c) Cash increases by €40,000.
   d) Cash does not change.

Answer: The correct answer is d). Cash does not change because the sales are on credit, and the cost of goods sold correspond to inventories that we pay at some other point. The transaction just consists of delivering inventories we had in our warehouse.

5. What is the effect of the transaction described above on the profit and loss account?

   a) The profit and loss account increases by €100,000.
   b) The profit and loss account decreases by €60,000.
   c) The profit and loss account increases by €40,000.
   d) The profit and loss account does not change.

Answer: The correct answer is c). ABC recognizes revenues of €100,000 and cost of goods sold of €60,000. So the total impact on the profit and loss account is +€40,000. Because of accrual accounting, we make this recognition of sales at the moment we deliver with the clear promise that we will collect the cash in the future.

Depreciation and amortization (questions 6 – 10):

Agrokinsey Inc. acquires a new piece of equipment in the beginning of 2016 at a cost of €20,000. The company estimates that the equipment's useful life is 10 years and its salvage value €4,000. Agrokinsey follows the straight-line depreciation method. Answer the following five questions:

6. What is the depreciable amount of the equipment (i.e. total value of the equipment to be depreciated)?

   a) €20,000
   b) €4,000
   c) €16,000
   d) €1,600

Answer: The correct answer is c). The amount to be depreciated is the original purchase cost minus the residual value (i.e. salvage value), that is, 20,000 – 4,000 = 16,000.

7. What is the annual depreciation expense for the equipment?

   a) €20,000
   b) €4,000
   c) €16,000
   d) €1,600

Answer: The correct answer is d). The annual depreciation expense is estimated dividing the depreciable amount of the asset by its useful life. The depreciable amount is the original purchase cost minus the residual value (i.e. salvage value). In this case:

(20,000 – 4,000) / 10 years = €1,600.

8. What is the net book value of the equipment after 2 years (end of 2017)?

   a) €20,000
   b) €16,000
   c) €16,800
   d) €3,200

Answer: The correct answer is c). The net book value equals the original purchase cost minus the accumulated depreciation. The annual depreciation expense is €1,600. After two years the total accumulated depreciation is €3,200. The purchase cost of €20,000 minus the accumulated depreciation of €3,200 equals a net book value of €16,800 at the end of 2017.

9. What is the accumulated depreciation at the end of the 10 years (i.e. end of useful life)?

   a) €20,000
   b) €16,000
   c) €0
   d) €4,000

Answer: The correct answer is b). At the end of the useful life, all the depreciable amount has been depreciated: purchase cost of 20,000 – residual value of 4,000 = €16,000. Another way to look at this is just to multiply the annual depreciation expense of €1,600 by 10 years.

10. Assume now that Agrokinsey Inc. had estimated a useful life of 15 years instead of 10 years with the same salvage value. Ignore any tax effects of this change in accounting policy. Which of the following statements is correct?

    a) The net profit for 2016 would have been lower.
    b) The net profit for 2016 would have been higher.
    c) The total cash in 2016 would have been lower.
    d) The total cash in 2016 would have been higher.

Answer:

The correct answer is b). First of all, let's make clear that depreciation does not affect cash (ignoring tax effects). The cash effect happened the day we purchased and paid for the equipment in the beginning of 2016, and that effect is the same no matter whether you estimate a useful life of 15 or 10 years. Second, if we lengthen the useful life to 15 years, then the annual depreciation expense is going to be lower and therefore the profit is going to be higher for 2016.

Bank loan and interest cost (questions 11 – 12):

Irwin Company obtained a five-year €100,000 bank loan at the end of year x0. The principal had to be repaid in equal installments every December 31st starting in x1. Yearly interest rate is 4% and is also paid every December 31st. Please answer the following two questions:

11. What is the impact of this transaction on the profit and loss account of the year x1?

    a) There is no impact on the profit and loss account in x1.
    b) The profit and loss account decreases by €20,000.
    c) The profit and loss account decreases by €24,000.
    d) The profit and loss account decreases by €4,000.

Answer: The correct answer is d). The part of the principal that we return is not a loss, just a repayment of an obligation. However, the interest cost for the loan (€4,000) is an expense that decreases the profit and loss account. This interest is the cost that the Irwin Company has incurred by using €100,000 from the bank for the past year. Therefore, they recognize the cost of a service that has already been consumed, that is, it does not have a future value.

12. Which of the following statements regarding year x1 is correct?

    a) The company recorded €20,000 as interest expense.
    b) The change in cash due to this loan was -€24,000.
    c) The ending balance of the bank loan liability at the end of year x1 was €76,000.
    d) The effect on the liabilities part of the balance sheet due to this loan was -€24,000.

Answer: The correct answer is b). On December 31^{st} of year x1, the company has to repay €20,000 of the principal and €4,000 for the interest accrued (i.e. 4% x 100,000). The repayment of principal decreases the bank loan liability and the interest is recognized as an expense in the profit and loss account.

<u>Understanding the relationship between inventories and the income statement (question 13)</u>:

13. For the commercial company XYZ in year x2 we know that: (1) gross profit = €50,000; (2) Change in inventories is €30,000; and (3) Purchases of inventory = €180,000. Which of the following statements is correct?

    a) Sales Revenues = €200,000
    b) Cost of Goods Sold = €130,000
    c) Accounts Payable = €180,000
    d) Accounts Receivable= 200,000

Answer: The correct answer is a). Inventories increase with purchases and decrease with the cost of goods sold (i.e. inventories sold). We know that inventories have increased by €30,000 in x2. So the difference between purchases and cost of goods sold is 30,000. We also know purchases were €180,000. Therefore, we can derive the cost of goods sold (COGS):

Change in inventories = Purchases of inventory – COGS

30,000 = 180,000 – COGS → COGS = 180,000 – 30,000 = €150,000

We also know that Gross Profit = Revenues – COGS. We know the gross profit and the COGS, so we can derive the revenues: Revenues = Gross profit + COGS = 50,000 + 150,000 = €200,000. We do not have information about cash collections and payments so we cannot determine the effect on accounts payable and accounts receivable.

<u>Recognizing transactions (question 14 – 19)</u>:

For the remaining questions, please consider the following transactions that happened in The Dorchester Company Ltd. in 2015 (amounts in £000):

- Credit sales amounted to 5,000 (nothing was paid by year-end).
- Cash sales amounted to 3,000.
- Purchases (on account) amounted to 10,000 (7,000 were paid by year-end).
- Cost of goods sold amounted to 6,000.
- Sales and administration expenses (all paid in cash) were 1,450.
- At the end of the year, the company paid 50 for the annual interest accrued on a loan.
- Depreciation of 100 was recorded at the end of the year.

14. What is the gross profit of the company?

    a) -1,000
    b) -2,000
    c) 1,000
    d) 2,000

Answer: The correct answer is d). Sales amount to 8,000 (5,000 credit sales + 3,000 cash sales) and cost of goods sold amount 6,000. The gross profit is the difference: £2,000.

15. What is the Return on Sales (Net profit / Sales) of the company?

    a) 5%
    b) 6.25%
    c) 8%
    d) 13.3%

Answer: The correct answer is a). Net profit = Sales 8,000 – COGS 6,000 – SG&A 1,450 – Depreciation 100 – Interest 50 = 400. Thus, Return on Sales = 400 / 8,000 = 5%

16. What is the change in cash during the year?

    a) -5,500
    b) -3,500
    c) -500
    d) 1,500

Answer: The correct answer is a). Change in cash = cash sales +3,000 – purchases paid 7,000 – selling and administrative expenses paid 1,450 – interest paid 50 = -£5,500

17. What is the change in inventories during the year?

    a) 3,000
    b) 4,000
    c) 6,000
    d) 10,000

Answer: The correct answer is b). There has been inventory purchases of 10,000 and cost of goods sold of 6,000. So the total effect has been an increase of 4,000 in inventories.

18. What is the change in liabilities during the year?

a) 0
b) 400
c) 3,000
d) 7,000

Answer: The correct answer is c). There have been purchases of 10,000 from suppliers, but only 7,000 were paid by the end of the year. So liabilities have increased by 3,000.

19. What is the change in total assets during the year?

a) -1,600
b) 3,400
c) 4,400
d) 8,400

Answer: The correct answer is b). There has been an increase in inventories of 4,000 (10,000 purchases – 6,000 cost of goods sold), a decrease in cash of 5,500, an increase in accounts receivable of 5,000 and a decrease in noncurrent assets due to depreciation of 100. Alternatively, you can consider that total liabilities have increased by 3,000 and owners' equity by 400.