# Module 2 Practice Quiz 1

**5/5** points earned (100%)

Excellent!

Retake

[Course Home](https://www.coursera.org/learn/corporate-finance/home/welcome)

Correct

1 / 1 points

1. Consider the following income statement and answer the question below.

|  |  |  |
| --- | --- | --- |
|  | **2015** | **2016** |
| Revenue | 50000 | 52500 |
| COGS | 32000 |  |
| SG&A | 12000 |  |
| EBIT | 6000 |  |
| Interest expense | 1300 |  |
| Income before tax | 4700 |  |
| Income taxes | 1410 |  |
| Earnings | 3290 |  |

Forecast EBIT in 2016 using the percentage of sales method and choose the correct answer:

1. **EBIT = 6,300**

**Correct Response**

All items grow at the same rate as revenues. Since revenues are growing at 5%, COGS = 33,600; SG&A = 12,600 and this EBIT = 6,300.

1. EBIT = 6,500
2. EBIT = 6,000
3. EBIT = 6,250

Correct

1 / 1 points

2. Consider the following income statement and answer the question below.

|  |  |  |
| --- | --- | --- |
|  | **2015** | **2016** |
| Revenue | 50000 | 52500 |
| COGS | 32000 | 33,600 |
| SG&A | 12000 | 12,600 |
| EBIT | 6000 | 6,300 |
| Interest expense | 1300 |  |
| Income before tax | 4700 |  |
| Income taxes | 1410 |  |
| Earnings | 3290 |  |

Suppose that interest expenses in 2016 will be 6% of total debt in 2015 and total debt in 2015 is equal to 25,000. The income tax is the same as in 2015. Forecast earnings in 2016 and choose the correct answer:

1. Earnings = 3,250
2. **Earnings = 3,360**

**Correct Response**

The interest expense is 6% \* 25,000 = 1,500. Thus, taxable income = 6,300 - 1,500 = 4,800. The tax rate is 30% and thus earnings = 70% \* 4,800 = 3,360.

Your income statement should be as follows:

|  |  |  |
| --- | --- | --- |
|  | **2015** | **2016** |
| Revenue | 50000 | 52500 |
| COGS | 32000 | 33,600 |
| SG&A | 12000 | 12,600 |
| EBIT | 6000 | 6,300 |
| Interest expense | 1300 | 1500 |
| Income before tax | 4700 | 4800 |
| Income taxes | 1410 | 1440 |
| Earnings | 3290 | 3360 |

1. Earnings = 3,350
2. Earnings = 3,400

Correct

1 / 1 points

3. Consider the cash flow statement below and answer the question.

|  |  |  |
| --- | --- | --- |
|  | **2015** | **2016** |
| Earnings | 3290 |  |
| Depreciation | 1200 | 1260 |
| Increase in working capital | -200 | -670 |
| Cash flow from operations | 4290 |  |
|  |  |  |
| Cash flow from investments | -2500 |  |
|  |  |  |
| Cash flow from financing | 230 |  |
|  |  |  |
| Net change in cash | 2020 |  |

Cash flow from operations in 2016 is:

1. 3,850
2. 4,504
3. 4,455
4. **3,950**

**Correct Response**

Cash flow from operations = earnings + depreciation + increase in working capital = 3,950.

Correct

1 / 1 points

4. Consider the cash flow statement below and answer the question.

|  |  |  |
| --- | --- | --- |
|  | **2015** | **2016** |
| Earnings | 3290 |  |
| Depreciation | 1200 | 1260 |
| Increase in working capital | -200 | -670 |
| Cash flow from operations | 4290 |  |
|  |  |  |
| Cash flow from investments | -2500 |  |
|  |  |  |
| Cash flow from financing | 230 |  |
|  |  |  |
| Net change in cash | 2020 |  |

Suppose the company is planning a capital expenditure of 4,500 in 2016. Assume also that this company does not pay dividends. Can the company finance this capital expenditure without issuing new external finance?

1. **Yes, because cash balances are sufficient to cover the difference between the capital expenditure and cash flow in 2016.**

**Correct Response**

Your cash flow statement should look as follows:

|  |  |  |
| --- | --- | --- |
|  | **2015** | **2016** |
| Earnings | 3290 | 3360 |
| Depreciation | 1200 | 1260 |
| Increase in working capital | -200 | -670 |
| Cash flow from operations | 4290 | 3950 |
|  |  |  |
| Cash flow from investments | -2500 | -4500 |
|  |  |  |
| Cash flow from financing | 230 | 0 |
|  |  |  |
| Net change in cash | 2020 | -550 |

Notice we are assuming that there is no inflow or outflow of external finance in 2016 (cash flow from financing = 0). Thus, cash goes down by 550 in 2016. Since the company saved 2,020 in cash in 2015, it can use its own cash to pay for the shortfall in 2016 (irrespective of how much cash it had to begin with).

Remember that capital expenditures are not tax-deductible, so the company must finance the entire value of 4,500.

1. No, because the company does not have sufficient cash to finance the capital expenditure.
2. Yes, because capital expenditures are tax-deductible, and thus, the cash flow from investments will be 70% of 4,500, which is lower than 2016 cash flow from operations.
3. No, because the capital expenditure is larger than the operating cash flow in 2016.

Correct

1 / 1 points

5. Consider the cash flow statement below and answer the question.

|  |  |  |
| --- | --- | --- |
|  | **2015** | **2016** |
| Earnings | 3290 |  |
| Depreciation | 1200 | 1260 |
| Increase in working capital | -200 | -670 |
| Cash flow from operations | 4290 |  |
|  |  |  |
| Cash flow from investments | -2500 |  |
|  |  |  |
| Cash flow from financing | 230 |  |
|  |  |  |
| Net change in cash | 2020 |  |

Suppose now that the company above is also planning a stock repurchase equal to 2,000 in 2016. Assume that total cash at the end of 2015 was 2,100. Can it finance both capital expenditures and thus stock repurchase without issuing new debt in 2016?

1. Yes, because the net change in cash in 2016 will be 1,450.
2. Yes, because the stock repurchase will not reduce cash in 2016.
3. No, because the interest rate on new debt is too high.
4. **No, because the capital expenditures and the stock repurchase will consume all of the cash that the company has.**

**Correct Response**

Your cash flow statement should now look as follows:

|  |  |  |
| --- | --- | --- |
|  | **2015** | **2016** |
| Earnings | 3290 |  |
| Depreciation | 1200 | 1260 |
| Increase in working capital | -200 | -670 |
| Cash flow from operations | 4290 | 3950 |
|  |  |  |
| Cash flow from investments | -2500 | -4500 |
|  |  |  |
| Cash flow from financing | 230 | -2000 |
|  |  |  |
| Net change in cash | 2020 | -2550 |

Notice that the stock repurchase reduces cash flow from financing by 2000. Thus, the net change in cash in 2016 is greater than the entire cash balance that the firm has at the end of 2015 (which is 2,100). The company must issue at least 450 in new debt.