# THE BASIC FINANCIAL STATEMENTS

**Instructor’s Manual Problem Set**

1. Using the data presented below for Blue Sky Inc.:

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|  | 2011 | 2010 |
| Sales | $7,550,000 | $6,150,000 |
| Cost of Goods | 5,750,000 | 4,550,000 |
| Depreciation | 120,000 | 100,000 |
| Selling and G&A Expenses | 820,000 | 730,000 |
| Fixed Expenses | 200,000 | 200,000 |
| Lease Expense | 150,000 | 150,000 |
| Interest Expense | 350,000 | 300,000 |
| Tax Rate | 40.00% | 40.00% |
| Shares Outstanding | 100,000 | 80,000 |
| Cash | 108,000 | 50,000 |
| Marketable Securities | 150,000 | 100,000 |
| Accounts Receivable | 450,000 | 350,000 |
| Inventory | 1,250,000 | 850,000 |
| Prepaid Expenses | 120,000 | 40,000 |
| Plant & Equipment | 5,350,000 | 4,800,000 |
| Accumulated Depreciation | 410,000 | 290,000 |
| Long Term Investments | 450,000 | 360,000 |
| Accounts Payable | 420,000 | 380,000 |
| Notes Payable | 150,000 | 100,000 |
| Accrued Expenses | 150,000 | 100,000 |
| Other Current Liabilities | 200,000 | 180,000 |
| Long-term Debt | 2,900,000 | 2,500,000 |
| Common Stock | 2,500,000 | 2,000 ,000 |
| Additional Paid-in-Capital | 600,000 | 500,000 |
| Retained Earnings | 548,000 | 500,000 |

a. Make the Blue Sky’s income statement and balance sheet using formulas wherever possible. Each statement should be on a separate worksheet. Improve the readability of the data by selecting the format explained on page 50, so that Excel will display the numbers as if they had been divided by 1,000. Make the appropriate note on the heading of each financial statement.

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| **Worksheet:** |
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| **Formulas:** |
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| **Worksheet:** |
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| **Formulas:** |
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b. On another worksheet, create a statement of cash flows for 2011. All formulas should be linked directly to the source on previous worksheets.

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| **Worksheet:** |
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| **Formulas:** |
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c. Using Excel’s outlining feature, create an outline on the balance sheet that, when collapsed, shows only the subtotals for each section.

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| **Worksheet:** |
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| **Collapsed Worksheet:** |
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2. Using the data from the previous problem:

a. Create a common-size income statement and balance sheet for 2011 and 2010. These statements should be created on a separate worksheet with all formulas linked directly to the income statement and balance sheet.

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| **Worksheet:** |
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| **Formulas:** |
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| **Worksheet:** |
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| **Formulas:** |
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b. Using the common-size income statement for 2011, create a pro-forma income statement for 2012 assuming that each item is expected to remain in the same proportion as in 2011. The forecasted sales for 2012 are $8,500,000.

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| **Worksheet:** |
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| **Formulas:** |
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3. Using the data presented below:

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a. Recreate the income statement and balance sheet by filling in the question marks with formulas wherever is possible. Each statement should be on a separate worksheet. Try to duplicate the formatting exactly. Note that the dividend policy in 2010 was based on a dividend payout ratio of 60%. In other words, 60 percent of earnings were paid to shareholders as dividends.

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| **Worksheet:** |
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| **Formulas:** |
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| **Worksheet:** |
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| **Formulas:** |
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b. On another worksheet, create a statement of cash flows for 2011. Use formulas linked directly to the source on previous worksheets instead of numbers.

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| **Worksheet:** |
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| **Formulas:** |
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c. Create a common-size income statement and balance sheet for 2011 and 2010. These statements should be created on a separate worksheet with all formulas linked directly to the income statement and balance sheet.

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| **Worksheet:** |
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| **Formulas:** |
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| **Worksheet:** |
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| **Formulas:** |
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4. Dragon Telecommunications Inc. wants to estimate forecasted financial statements for 2012 based on its accounting data in 2011. In 2011 total revenue was $1,550,000; cost of goods sold was $1,250,000; selling and G&A expenses were $110,000; depreciation expense was $15,000; interest expense was $25,000; the average tax rate was 35 percent, and the number of shares outstanding was 80,000. Also, in 2011 Dragon has cash for $20,000; accounts receivable of $120,000; inventory of $220,000; plant & equipment of $1,150,000 with an accumulated depreciation of $250,000. In 2011, accounts payable, notes payable, long-term debt, common stock, additional paid-in-capital, and retained earnings represented 7, ½, 20, 44.5, 12, and 16 percent of total assets respectively. For 2012, Reptile expects a 25% increase in total revenue, while cost of goods sold and selling and G&A expenses are expected to remain in the same proportion of total revenue as in 2011. Also for 2012, total plant and equipment will increase in 12 percent as well as the total annual depreciation expense. Similarly, long-term debt is forecasted to increase by 20 percent as well as the total annual interest expense, but the tax rate and the number of shares outstanding will remain constant. Additionally in 2012, accounts receivable, inventory, accounts payable, and notes payable are expected to increase 15 percent, while common stocks and paid-in-capital will increase by 25 percent. The dividend policy in 2012 will be based on a dividend payout ratio of 50 percent. In other words, 50 percent of forecasted earnings will be paid to shareholders as dividends. Using all these projections, create the forecasted 2012 income statement, balance sheet, and statement of cash flows for Dragon Telecommunications Inc. Each statement should be on a separate worksheet.

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| **Worksheet:** | **Formulas:** |
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| **Worksheet:** | |
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| **Formulas:** | |
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| **Worksheet:** |
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| **Formulas:** |
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**Test Bank**

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| 1. What custom category was used to format cell A2 using the data on cell A1? |  |
| a. #,##0.00, |
| b. #,##0.00 |
| c. #,###.00 |
| d. #,##0, |
| e. #,##0 |

*Solution: a.*

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| --- | --- |
| 2. How would look cell A1 after being formatted as “#,###.000,”? |  |
| a. 1.23 |
| b. 1,234.56 |
| c. 1.235 |
| d. 1 |
| e. 1,235 |

*Solution: c.*

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| 3. Which cells have the wrong formula to calculate some items associated with the cash flows from operations?  I. cell B8  II. cell B9  III. cell B10  IV. cell B11 |  |
| a. I and III |
| b. II and IV |
| c. I, II, and III |
| d. II, III, and IV |
| e. I, II, III, and IV |
| *Solution: b.* |

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| 4. Which of the following are the correct formulas to calculate the change in accounts receivable, inventories, accounts payable, and other current liabilities for cells B8, B9, B10, and B11 respectively? |  |
| a. =C2-B2, =C3-B3, =C5-B5,and =C6-B6 |
| b. =C2-B2, =B3-C3, =B5-C5,and =C6-B6 |
| c. =B2-C2, =B3-C3, =B5-C5,and =B6-C6 |
| d. =C2-B2, =C3-B3, =B5-C5,and =B6-C6 |
| e. =B2-C2, =C3-B3, =C5-B5,and =B6-C6 |
| *Solution: d.* |

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| 5. Which of the following is the correct formula for cell B8 to calculate the cash dividends paid to shareholders? |  |
| a. =-(B2+(B5-C5)) |
| b. =-(B2-(B6-C6)) |
| c. =B2-(B5-C5) |
| d. =-B2-(B5-C5) |
| e. =-(B2-(B5-C5)) |
| *Solution: e.* |

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| 6. In the following worksheet of an income statement, which cell has an error? |  |
| a. B4 |
| b. B8 |
| c. B10 |
| d. B12 |
| e. None |
| *Solution: b.* |

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| 7. In the following worksheet of a balance sheet, which cell has an error? |  |
| a. B10 |
| b. B11 |
| c. B15 |
| d. B17 |
| e. B21 |
| *Solution: d.* |

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| 8. Which of the following is the correct formula for cell B5 to calculate the earnings per share? |  |
| a. =B2-B3\*B2/B4 |
| b. =(B2-B3)/B4 |
| c. =B2\*(1-B3)/B4 |
| d. =(B2+B3\*B2)/B4 |
| e. =B2\*(1+B3)/B4 |

*Solution: c.*

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| --- | --- |
| 9. Which of the following is the correct formula for cell B9 to calculate the net income? |  |
| a. =B2-(B3-B4-B5-B6)-B7-B8 |
| b. =B2+(B3-B4-B5-B6)-B7-B8 |
| c. =B2-B3-B4-B5-B6-B7+B8 |
| d. =B2-SUM(B2:B8) |
| e. =B2-SUM(B3:B8) |
| *Solution: c.* |

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| 10. Using only the information provided in the following worksheet, what is the correct formula to calculate the total cash flows from financing? |  |
| a. =(B2-C2)-(B4+(B3-C3)) |
| b. =(B2-C2)+(B4-(B3-C3)) |
| c. =(B3-C3)-(B4-(B2-C2)) |
| d. =(B2-C2)-(B4-(B3-C3)) |
| e. =(B2+C2)-(B4+(B3+C3)) |

*Solution: d.*

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| 11. Which is the correct formula to determine depreciation on cell B9? |  |
| a. =(B5+B6) –(B8-B10) |
| b. =(B5-B6)-B8-B10 |
| c. =(B5+B6) –(B8+B10) |
| d. (B5-B6)+(B8-B10) |
| e. =B5-B6-B8+B10 |

*Solution: b.*

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| 12. Which is the correct formula to determine taxes on cell B14? |  |
| a. =(B10+B11)+B14 |
| b. =(B10+B11)-B14 |
| c. =(B10-B11)-B14 |
| d. =(B10-B11)+B14 |
| e. None of the above |

*Solution: c.*

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| 13. Which is the correct formula to determine the average tax rate on cell B15? |  |
| a. =(B10-B11-B14)/(B10-B11) |
| b. =(B10+B11+B14)/(B10-B11) |
| c. =(B10-B11-B14)/(B10+B11) |
| d. =(B10+B11+B14)/(B10-B11) |
| e. =(B10-B11-B14)/B10-B11 |

*Solution: a.*

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| 14. Which is the correct formula to determine the net income on cell B14? |  |
| a. =(B10+B11)\*(1+B15) |
| b. =(B10-B11)\*(1+B15) |
| c. =(B10+B11)\*(1-B15) |
| d. =(B10-B11)\*(1-B15) |
| e. =(B10-B11)/(1-B15) |

*Solution: d.*

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| 15. Which is the correct formula to determine the EPS on cell B16? |  |
| a. =(B10+B11)\*(1+B25)/B15 |
| b. =(B10-B11)\*(1-B25)/B15 |
| c. =(B10-B11)/(1-B25)\*B15 |
| d. =(B10+B11)\*(1-B25)/B15 |
| e. =(B10-B11)\*(1+B25)/B15 |

*Solution: b.*