**CHAPTER 12**

**Answers to EOC Questions, Mini-Exercises, Multiple Choice Questions,**

**and Assigned Exercises and Problems.**

ANSWERS TO QUESTIONS

1. The income statement reports revenues earned and expenses incurred during a period of time. It is prepared on an accrual basis. The balance sheet reports the assets, liabilities, and equity of a business at a point in time. The statement of cash flows reports cash receipts and cash payments of a business, from three broad categories of business activities: operating, investing, and financing.

2. The statement of cash flows reports cash receipts and cash payments from three broad categories of business activities: operating, investing, and financing. While the income statement reports operating activities, it reports them on the accrual basis: revenues when earned, and expenses when incurred, regardless of the timing of the cash received or paid. The statement of cash flows reports the cash flows arising from operating activities. The balance sheet reports assets, liabilities, and equity at a point in time. The statement of cash flows and related schedules indirectly report changes in the balance sheet by reporting operating, investing, and financing activities during a period of time, which caused changes in the balance sheet from one period to the next. In this way, the statement of cash flows reports information to link together the financial statements from one period to the next, by explaining the changes in cash and other balance sheet accounts, while summarizing the information into operating, investing, and financing activities.

3. Cash equivalents are short-term, highly liquid investments that are purchased within three months of the maturity date. The statement of cash flows does not separately report the details of purchases and sales of cash equivalents because these transactions affect only the composition of total cash and cash equivalents. The statement of cash flows reports the change in total cash and cash equivalents from one period to the next.

4. The major categories of business activities reported on the statement of cash flows are operating, investing, and financing activities. Operating activities of a business arise from the production and sale of goods and/or services. Investing activities arise from acquiring and disposing of property, plant, and equipment and investments. Financing activities arise from transactions with investors and creditors.

5. Cash inflows from operating activities include cash sales, collections on accounts, and notes receivable arising from sales, dividends on investments, and interest on loans to others and investments. Cash outflows from operating activities include payments to suppliers and employees, and payments for operating expenses, taxes, and interest.

6. Depreciation expense is added to net income to adjust for the effects of a noncash expense that was deducted in determining net income. It does not involve an inflow of cash.

7. Cash expenditures for purchases and salaries are not reported on the statement of cash flows, indirect method, because that method does not report cash inflows and outflows for each operating activity. Rather, it reports only net income, changes in accounts payable and wages payable, and net cash flow from operating activities.

8. The $50,000 increase in inventory must be used in the statement of cash flows calculations because it increases the outflow of cash all other things equal. It is used as follows:

*Direct method*—added to cost of goods sold, accrual basis (the other adjustment would involve accounts payable) to compute cost of goods sold, cash basis.

*Indirect method*—subtracted from net income as a reconciling item to obtain cash flows from operating activities.

9. The two methods of reporting cash flows from operating activities are the direct method and the indirect method. The direct method reports the gross amounts of cash receipts and cash payments arising from the revenues and expenses reported on the income statement. The indirect method reports the net amount of cash provided or used by operating activities, by reporting the adjustments to net income for the net effects of noncash revenues and expenses, and changes in accruals and deferrals. The two approaches differ in the way they report cash flows from operating activities, but net cash provided by operating activities is the same amount.

10. Cash inflows from investing activities include cash received from sale of operational assets, sale of investments, maturity value of bond investments, and principal collections on notes receivable. Cash outflows from investing activities include cash payments to purchase property, plant, and equipment and investments, and to make loans.

11. Cash inflows from financing activities include cash received from issuing stock, the sale of treasury stock, and borrowings. Cash outflows from financing activities include cash payments for dividends, the purchase of treasury stock, and principal payments on borrowing.

12. Noncash investing and financing activities are activities that would normally be classified as investing or financing activities, except no cash was received or paid. Examples of noncash investing and financing include the purchase of assets by issuing stock or bonds, the repayment of loans using noncash assets, and the conversion of bonds into stock. Noncash investing and financing activities are not reported in the statement of cash flows, because there was no cash received or cash paid; however, the activities are disclosed in a separate schedule.

13. When equipment is sold, it is considered an investing activity, and any cash received is reported as a cash inflow from investing activities. When using the indirect method, the gain on sale of equipment must be reported as a deduction from net income, because the gain was included in net income, but did not provide any cash from operating activities. When using the indirect method, the loss on sale of equipment is added to net income because the loss was included in net income but did not require an operating cash outflow.

ANSWERS TO MULTIPLE CHOICE

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. d) | 1. d) | 1. a) | 1. c) | 1. a) |
| 1. b) | 1. d) | 1. b) | 1. d) | 1. c) |

MINI–EXERCISES

**M12–1.**

|  |  |  |
| --- | --- | --- |
| F | 1. | Purchase of stock. (This involves repurchase of its own stock.) |
| F | 2. | Principal payment on long-term debt. |
| I | 3. | Proceeds from sale of properties. |
| O | 4. | Inventories (decrease). |
| O | 5. | Accounts payable (decrease). |
| O | 6. | Depreciation, depletion, and amortization. |

**M12–2.**

|  |  |  |
| --- | --- | --- |
| + | 1. | Accrued expenses (increase). |
| – | 2. | Inventories (increase). |
| + | 3. | Accounts receivable (decrease). |
| – | 4. | Accounts payable (decrease). |
| + | 5. | Depreciation, depletion, and amortization. |

**M12–3.**

|  |  |  |
| --- | --- | --- |
| O | 1. | Receipts from customers. |
| F | 2. | Dividends paid. |
| F | 3. | Payment for share buy-back. |
| I | 4. | Proceeds from sale of property, plant and equipment. |
| F | 5. | Repayments of borrowings (bank debt). |
| O | 6. | Net interest paid. |

**M12–4.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Quality of income ratio | = | Cash flow from operations | = | $86,500 | = | 0.85 (85%) |
|  |  | Net income |  | $102,000 |  |  |

The quality of income ratio measures the portion of income that was generated in cash. A low ratio indicates a likely need for external financing.

**M12–5.**

|  |  |
| --- | --- |
| Investing Activities |  |
| Sale of used equipment | $ 400 |
| Purchase of short-term investments | (635) |
| Cash used in investing activities | $ (235) |

**M12–6.**

|  |  |
| --- | --- |
| Financing Activities |  |
| Additional short-term borrowing from bank | $1,200 |
| Dividends paid | (700) |
| Cash provided by financing activities | $ 500 |

**M12–7.**

|  |  |
| --- | --- |
| Yes | Purchase of building with mortgage payable |
| No | Additional short-term borrowing from bank |
| No | Dividends paid in cash |
| Yes | Purchase of equipment with short-term investments |

EXERCISES

**E12–2.**

|  |  |
| --- | --- |
| I | 1. Sales of short- and long-term available-for-sale securities. |
| O | 1. Interest paid |
| I | 1. Additions to property, plant, and equipment. |
| O | 1. Income taxes paid. |
| F | 1. Issuance of EMC’s common stock |
| F | 1. Payment of long-term and short-term obligations |
| O | 1. Dividends and interest received. |
| O | 1. Cash received from customers. |
| I | 1. Purchases of short- and long-term available-for-sale securities |
| NA | 1. Net income |

**E12–7.**

Req. 1

|  |  |  |
| --- | --- | --- |
| **Cash flows from operating activities—indirect method** |  |  |
| Net loss | ($6,400 | ) |
| Depreciation expense | 4,500 |  |
| Amortization of copyrights | 200 |  |
| Accounts receivable decrease ($8,000 – $13,000) | 5,000 |  |
| Salaries payable increase ($12,000 – $1,000) | 11,000 |  |
| Other accrued liabilities decrease ($1,000 – $2,800) | (1,800 | ) |
| Net cash provided by operating activities | $12,500 |  |

Req. 2

The first reason for the net loss was the depreciation expense. This is a non-cash expense. Depreciation expense, along with decreased working capital requirements (current assets - current liabilities), turned the net loss into positive operating cash flow from operations. The reasons for the difference between net income and cash flow are important because they help the financial analyst determine if the trends are sustainable or whether they represent one-time events.

**E12–8.**

|  |  |  |
| --- | --- | --- |
| **Cash flows from operating activities—indirect method** |  |  |
| Net income | $ 14,000 |  |
| Depreciation expense | 8,500 |  |
| Loss on sale of equipment  Accounts receivable decrease | 2,500  10,000 |  |
| Salaries payable increase | 11,000 |  |
| Other accrued liabilities decrease | (2,000 | ) |
| Net cash provided by operating activities | $44,000 |  |

**E12–10.**

|  |  |  |
| --- | --- | --- |
| Account |  | Change |
| Receivables |  | Increase |
| Inventories |  | Increase |
| Other current assets |  | Decrease |
| Payables |  | Increase |

**E12–14.**

Req. 1

|  |  |  |
| --- | --- | --- |
| **Cash flows from operating activities—indirect method** |  |  |
| Net income | $6,462 |  |
| Depreciation and amortization | 2,737 |  |
| Increase in accounts receivable | (666 | ) |
| Increase in inventory | (331 | ) |
| Increase in prepaid expense | (27 | ) |
| Increase in accounts payable | 520 |  |
| Decrease in taxes payable | (340 | ) |
| Increase in other current liabilities | 589 |  |
| Cash flows from operating activities | $8,944 |  |

Note: The cash dividends paid and treasury stock purchased are not related to operating activities and do not affect cash flows from operating activities.

Req. 2

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Quality of income ratio | = | Cash flow from operations | = | $8,944 | = | 1.38 |
|  |  | Net income |  | $6,462 |  |  |

Req. 3

The reason the quality of income ratio was greater than one was primarily because of large non-cash depreciation charges.

**E12–15.**

The investing and financing sections of the statement of cash flows for Oering’s Furniture:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | |  | | |
| **Cash flows from investing activities:** |  | |  | | |
| Purchase of property, plant & equipment | | $(1,071) | | |  | | |
| Sale of marketable securities | | 219 | | |  | | |
| Proceeds from sale of property, plant & equipment | | 6,894 | | |  | | |
| Net cash flows from investing activities | |  | | | $6,042 | | |
|  |  | |  | | |
| **Cash flows from financing activities:** |  | |  | | |
| Borrowings under line of credit | 1,117 | | |  | | |
| Proceeds from issuance of stock | 11 | | |  | | |
| Payments on long-term debt | (46) | | |  | | |
| Payment of dividends | (277) | | |  | | |
| Purchase of treasury stock | (2,583) | | |  | | |
| Net cash flows from financing activities |  | | | (1,778) | | |

**ASSIGNED PROBLEMS**

**P12–2.**

Req. 1

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Related Cash | **Balance sheet at December 31** | | | |  | | |  | |  | |  | | |
| Flow Section |  | | **2016** | | **2015** | | | **Change** | | | | |  | | | |
| Δ in Cash | Cash | $37,000 | | $29,000 | | | +8,000 | | | 10 | | Net increase in cash | | | |
| O | Accounts receivable | 32,000 | | 28,000 | | | +4,000 | | | 3 | | Subtract from net income the increase in A/R | | | |
| O | Merchandise inventory | 41,000 | | 38,000 | | | +3,000 | | | 4 | | Subtract from net income the increase in Inventory | | | |
| I | Property and equipment | 132,000 | | 111,000 | | | +21,000 | | | 7 | | Payment in cash for equipment | | | |
| O | Less: Accumulated depreciation | (41,000) | | (36,000) | | | -5,000 | | | 2 | | Add back to NI because depreciation expense does not affect cash | | | |
|  |  | $201,000 | | $170,000 | | |  | | |  | |  | | | |
| O | Accounts payable | $36,000 | | $27,000 | | | +9,000 | | | 5 | | Add to net income the increase in Accounts Payable | | | |
| O | Accrued wage expense | 1,200 | | 1,400 | | | -200 | | | 6 | | Subtract from net income the decrease in accrued wage expense | | | |
| F | Note payable, long-term | 38,000 | | 44,000 | | | -6,000 | | | 8 | | Cash used for repayment of note principal | | | |
| F | Contributed capital | 88,600 | | 72,600 | | | +16,000 | | | 9 | | Issuance of stock for cash | | | |
| O,F | Retained earnings | 37,200 | | 25,000 | | | +12,200 | | | 1 | | Increased for net income amount | | | |
|  |  | $201,000 | | $170,000 | | |  | | |  | |  | | | |
|  |  | |  | |  | | |  | |  | |  | | |
|  | **Income statement for 2016** | | | |  | | |  | |  | |  | | |
|  | Sales | | $120,000 | | |  | | |  | |  | | |  | | | |
|  | Cost of goods sold | | 70,000 | | |  | | |  | |  | | |  | | | |
|  | Other expenses | | 37,800 | | |  | | |  | |  | | |  | | | |
|  | Net Income | | $12,200 | | |  | | | | |  | | |  | | | |

**P12–2. (continued)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| BG Wholesalers | | | | |
| Statement of Cash Flows | | | | |
| For the Year Ended December 31, 2016 | | | | |
|  |  |  |  |  |
| **Cash flows from operating activities:** |  |  |  |  |
| Net income |  |  | $12,200 | 1 |
| Adjustments to reconcile net income to net cash provided by operating activities: |  |  |  |  |
| Depreciation expense | $ 5,000 | 2 |  |  |
| Increase in accounts receivable | (4,000) | 3 |  |  |
| Increase in merchandise inventory | (3,000) | 4 |  |  |
| Increase in accounts payable | 9,000 | 5 |  |  |
| Decrease in accrued expenses | (200) | 6 | 6,800 |  |
| Net cash provided by operating activities |  |  | 19,000 |  |
| **Cash flows from investing activities:** |  |  |  |  |
| Cash payments to purchase fixed assets |  |  | (21,000) | 7 |
| **Cash flows from financing activities:** |  |  |  |  |
| Cash payments on long-term note | (6,000) | 8 |  |  |
| Cash receipts from issuing stock | 16,000 | 9 |  |  |
| Net cash provided by financing activities |  |  | 10,000 |  |
| Net increase in cash during the year |  |  | 8,000 | 10 |
| Cash balance, January 1, 2016 |  |  | 29,000 |  |
| Cash balance, December 31, 2016 |  |  | $37,000 |  |

Req. 2

There was an increase in cash for BG Wholesalers this year of $8,000. Operating activities provided a positive cash flow of $19,000. This inflow of cash from operating activities, combined with the stock issuance for $16,000 cash, allowed the company to invest $21,000 in fixed assets and pay down a long-term note by $6,000

**P12–4.**

Req. 1

|  |  |  |
| --- | --- | --- |
| OMEGA COMPANY Cash Flows from Operating Activities Direct Method | | |
| **Cash flows from operating activities:** |  |  |
| Cash receipts from customers | $22,780 |  |
| Cash payments to suppliers | (10,512 | ) |
| Cash payments for salaries | (4,055 | ) |
| Cash payments for rent | (3,205 | ) |
| Cash payments for insurance | (1,113 | ) |
| Cash payments for utilities | (850 | ) |
| Cash payments for bond interest | (450 | ) |
| Net cash provided by operating activities | $2,595 |  |

Req. 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| OMEGA COMPANY Cash Flows from Operating Activities Indirect Method | | | | |
| **Cash flows from operating activities:** |  |  |  |  |
| Net loss |  |  | $ (220 | ) |
| Adjustments to reconcile net loss to net cash |  |  |  |  |
| provided by operating activities: |  |  |  |  |
| Depreciation expense | $2,000 |  |  |  |
| Loss on sale of investments | 650 |  |  |  |
| Decrease in accounts receivable | 180 |  |  |  |
| Increase in merchandise inventory | (85 | ) |  |  |
| Increase in accounts payable | 73 |  |  |  |
| Increase in salaries payable | 15 |  |  |  |
| Decrease in rent payable | (6 | ) |  |  |
| Decrease in prepaid rent | 1 |  |  |  |
| Increase in prepaid insurance | (13 | ) |  |  |
| Total adjustments |  |  | 2,815 |  |
| Net cash provided by operating activities |  |  | $2,595 |  |

**P12–5.**

Req. 1

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Related Cash | **Balance sheet at December 31** | |  | |  | |  | | |  | | |
| Flow Section |  | **2014** | **2013** | | **Change** | | | | |  | | |
| Δ in Cash | Cash | $ 34,000 | $ 29,000 | | +5,000 | | | 10 | | | Net increase in cash | | |
| O | Accounts receivable | 35,000 | 28,000 | | +7,000 | | | 3 | | | Subtract from net income the increase in A/R | | |
| O | Merchandise inventory | 41,000 | 38,000 | | +3,000 | | | 4 | | | Subtract from net income the increase in Inventory | | |
| I | Property and equipment | 121,000 | 100,000 | | +21,000 | | | 7 | | | Payment in cash for equipment $31,000  Original cost of equipment sold ($10,000) | | |
| O | Less: Accumulated depreciation | (30,000) | (25,000) | | -5,000 | | | 2 | | | Accumulated depreciation on equipment sold $7,000  Add back $12,000 to NI because depreciation expense does not affect cash | | |
|  |  | $201,000 | $170,000 | |  | | |  | | |  | | |
| O | Accounts payable | $ 36,000 | $ 27,000 | | +9,000 | | | 5 | | | Add to net income the increase in Accounts payable | | |
| O | Wages payable | 1,200 | 1,400 | | -200 | | | 6 | | | Subtract from net income the decrease in Wages  payable | | |
| F | Note payable, long-term | 38,000 | 44,000 | | -6,000 | | | 8 | | | Cash used for repayment of note principal | | |
| F | Contributed capital | 88,600 | 72,600 | | +16,000 | | | 9 | | | Issuance of stock for cash | | |
| O, F | Retained earnings | 37,200 | 25,000 | | +12,200 | | | 1 | | | Increased for net income amount | | |
|  |  | $201,000 | $170,000 | |  | | |  | | |  | | |
|  |  |  |  | |  | | |  | | |  | | |
|  | **Income statement for 2014** | |  | |  | | |  | | |  | | |
|  | Sales | $120,000 |  | |  | | |  | | |  | | |
|  | Gain on sale of equipment | 1,00010 | |  | |  | | |  | | |  | | |
|  | Cost of goods sold | 70,000 |  | |  | | |  | | |  | | |
|  | Other expenses | 38,800 |  | |  | | |  | | |  | | |
|  | Net Income | $ 12,200 |  | | | |  | | |  | | |

**P12–5. (continued)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| XS Supply Company | | | | | | | | | |
| Statement of Cash Flows | | | | | | | | | |
| For the Year Ended December 31, 2014 | | | | | | | | | |
|  |  |  | |  | |  | |
| **Cash flows from operating activities:** |  | |  | |  | |  | |
| Net income |  | |  | | $12,200 | | 1 | |
| Adjustments to reconcile net income to net cash provided by operating activities: |  | |  | |  | |  | |
| Depreciation expense | $ 12,000 | | 2 | |  | |  | |
| Gain on sale of equipment | (1,000) | | 10 | |  | |  | |
| Increase in accounts receivable | (7,000) | | 3 | |  | |  | |
| Increase in merchandise inventory | (3,000) | | 4 | |  | |  | |
| Increase in accounts payable | 9,000 | | 5 | |  | |  | |
| Decrease in wages payable | (200) | | 6 | | 9,800 | |  | |
| Net cash provided by operating activities |  | |  | | 22,000 | |  | |
| **Cash flows from investing activities:** |  | |  | |  | |  | |
| Cash payments to purchase equipment | (31,000) | | 7 | |  | |  | |
| Cash received from sale of equipment | 4,000 | |  | |  | |  | |
| Net cash used by investing activities |  | |  | | (27,000) | |  | |
| **Cash flows from financing activities:** |  | |  | |  | |  | |
| Cash payments on long-term note | (6,000) | | 8 | |  | |  | |
| Cash receipts from issuing stock | 16,000 | | 9 | |  | |  | |
| Net cash provided by financing activities |  | |  | | 10,000 | |  | |
| Net increase in cash during the year |  | |  | | 5,000 | | 10 | |
| Cash balance, January 1, 2014 |  | |  | | 29,000 | |  | |
| Cash balance, December 31, 2014 |  | |  | | $34,000 | |  | |

Req. 2

There was an increase in cash for XS Supply Company this year of $5,000. Operating activities provided a positive cash flow of $22,000. This inflow of cash from operating activities, combined with the $4,000 proceeds from sale of equipment and the stock issuance for $16,000 cash, allowed the company to invest $31,000 in new equipment and pay down a long-term note by $6,000.