**CHAPTER 9**

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

**and Assigned Exercises and Problems.**

ANSWERS TO QUESTIONS

1. Liabilities are obligations that result from past transactions that require future payment of assets or the future performance of services, that are definite in amount or are subject to reasonable estimation. A liability usually has a definite payment date known as the maturity or due date. A current liability is a short-term liability; that is, one that will be paid during the coming year or the current operating cycle of the business, whichever is longer. It is assumed that the current liability will be paid out of current assets. All other liabilities are defined as long-term liabilities.

2. External parties have difficulty determining the amount of liabilities of a business in the absence of a balance sheet. Therefore, about the only sources available to external parties for determining the number, type, and amounts of liabilities of a business are the published financial statements. These statements have more credibility when they have been audited by an independent CPA.

3. A liability is measured at acquisition at its current cash equivalent amount. Conceptually, this amount is the present value of all of the future payments of principal and interest. For a short-term liability the current cash equivalent usually is the same as the maturity amount. The current cash equivalent amount for an interest-bearing liability at the going rate of interest is the same as the maturity value. For a long-term liability, the current cash equivalent amount will be less than the maturity amount: (1) if there is no stated rate of interest, or (2) if the stated rate of interest is less than the going rate of interest.

4. Most debts specify a definite amount that is due at a specified date in the future. However, there are situations where it is known that an obligation or liability exists although the exact amount is unknown. Liabilities that are known to exist but the exact amount is not yet known must be recorded in the accounts and reported in the financial statements at an estimated amount. Examples of a known obligation of an estimated amount are estimated income tax at the end of the year, property taxes at the end of the year, and obligations under warranty contracts for merchandise sold.

5. Working capital is computed as total current assets minus total current liabilities. It is the amount of current assets that would remain if all current liabilities were paid, assuming no loss or gain on liquidation of those assets.

6. An accrued liability is an expense that was incurred before the end of the current period but has not been paid or recorded. Therefore, an accrued liability is recognized when such a transaction is recorded. A typical example is wages incurred during the last few days of the accounting period but not recorded because no payroll was prepared and paid that included these wages. Assuming wages of $2,000 were incurred, the adjusting entry to record the accrued liability and the wage expense would be as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| December 31: |  |  |  |
|  Wage expense (+E, -SE)…………………………………… | 2,000 |  |  |
|   Wages payable (+L) ………………………………….. |  |  | 2,000 |

7. A deferred revenue (usually called unearned revenue or revenue collected in advance) is a revenue that has been collected in advance of being earned and recorded in the accounts by the entity. Because the amount already has been collected and the goods or services have not been provided, there is a liability to provide goods or services to the party who made the payment in advance.

8. A note payable is a written promise to pay a stated sum at one or more specified dates in the future. A secured note payable is one that has attached to it (or coupled with it) a mortgage document which commits specified assets as collateral to guarantee payment of the note when due. An unsecured note is one that does not have specific assets pledged, or committed, to its payment at maturity. A secured note carries less risk for the note holder (creditor).

9. A contingent liability is not an effective liability; rather it is a potential future liability. A contingent liability arises because of some transaction or event that has already occurred which may, depending upon one or more future events, cause the creation of a true liability. A typical example is a lawsuit for damages. Whether the defendant has a liability depends upon the ultimate decision of the court. Pending that decision there is a contingent liability (and a contingent loss). This contingency must be recorded and reported (debit, loss; credit, liability) if it is “probable” that the decision will require the payment of damages that can be reasonably estimated. If it is only “reasonably possible” that a loss will be incurred, only footnote disclosure is required.

10. $4,000 x 12% x 9/12 = $360.

11. The time value of money is another way to describe interest. Time value of money refers to the fact that a dollar received today is worth more than a dollar to be received at any later date because of interest.

12. Future value—The future value of a number of dollars is the amount that it will increase to in the future at *i* interest rate for *n* periods. The future value is the principal plus accumulated interest compounded each period.

 Present value—The present value of a number of dollars, to be received at some specified date in the future, is that amount discounted to the present at *i* interest rate for *n* periods. It is the inverse of future value. In compound discounting, the interest is subtracted rather than added as in compounding.

13. $8,000 x .3855 = $3,084.

14. An annuity is a term that refers to equal periodic cash payments or receipts of an equal amount each period for two or more periods. In contrast to a future value of $1 or a present value of $1 (which involve a single contribution or amount), an annuity involves a series of equal contributions for a series of equal periods. An annuity may refer to a future value or a present value.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 15. |  |  |  |  | Table Values |
|  | Concept |  |  |  | *i* = 5%; *n* =4 |  | *i* = 10%; *n* =7 |  | *i* = 14%; *n* = 10 |
|  | PV of $1 |  |  |  |  .8227 |  |  .5132 |  |  .2697 |
|  | PV of annuity of $1 |  |  |  | 3.5460 |  | 4.8684 |  |  5.2161 |

16. $18,000 – $3,000 = $15,000 ÷ 4.9173 = $3,050.

ANSWERS TO MULTIPLE CHOICE

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

**MINI-EXERCISES**

**M9–1.**

 **1st Year** $600,000 × .11 ×1/12 = $5,500

 **2nd Year** $600,000 × .11 × 2/12 = $11,000

**M9–2.**

October 1

|  |  |  |  |
| --- | --- | --- | --- |
| Cash (+A)  | 290,000 |  |  |
|  Note payable (+L)  |  |  | 290,000 |

December 31

|  |  |  |  |
| --- | --- | --- | --- |
| Interest expense (+E, -SE)  | 7,250 |  |  |
|  Interest payable (+L)  |  |  | 7,250 |

**M9–3.**

1. Computed from balance sheet data
2. Balance sheet
3. Notes to the statements
4. Not reported but can be computed from balance sheet and income statement data.
5. Statement of cash flows

**M9–4.**  Working Capital: $ 120,000 - $ 90,000 = $ 30,000

**M9–5.**

|  |
| --- |
| **Working Capital** |
| Remain the same |
| Decrease |
| Remain the same |
| Remain the same |

**M9–6.**

 **2014** Buzz does not have to record or disclose the liability because the chance of the liability occurring is remote.

 **2015** Buzz must disclose the liability in a note because the liability is reasonably possible.

 **2016** Buzz must disclose the liability in a note since the existence of a liability is reasonably possible. If the lawyers believe that the case will be lost on appeal, a liability should be recorded.

 **2017** Buzz must record the loss and the liability because the out of court settlement made the $150,000 loss probable.

**M9–7.**

|  |  |  |
| --- | --- | --- |
| $500,000 × 0.4632 | = | $231,600 |

**M9–8.**

|  |  |  |
| --- | --- | --- |
|  $15,000 × 6.1446  | = | $92,169 |

**M9–9.**

|  |  |  |
| --- | --- | --- |
|  $118,000 | = | $118,000 |
| + $129,000 × 0.9524 | = | 122,860 |
| + $ 27,500 × 5.0757 | = | 139,582 |
| Total | = | $380,442 |

**M9–10.**

|  |  |  |
| --- | --- | --- |
| $27,500 × 5.9847 | = | $164,579 |
| $16,250 × 15.1929 | = | $246,885 |

It is much better to save $16,250 for 10 years.

**M9–11.**

|  |  |  |
| --- | --- | --- |
|  $125,000 | = | X (7.3359) |
|  $17,039 | = | X |

**EXERCISES**

**E9–1.**

Req. 1

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| (a) | Current assets  |  |  | $168,000  |  |
|  | Current liabilities: |  |  |  |  |
|  |  Accounts payable  | $56,000 |  |  |  |
|  |  Income taxes payable  | 14,000 |  |  |  |
|  |  Liability for withholding taxes  | 3,000 |  |  |  |
|  |  Rent revenue collected in advance  | 7,000 |  |  |  |
|  |  Wages payable  | 7,000 |  |  |  |
|  |  Property taxes payable  | 3,000 |  |  |  |
|  |  Note payable, 10% (due in 6 months)  | 12,000 |  |  |  |
|  |  Interest payable  |  400 |  | (102,400 | ) |
|  | Working capital  |  |  | $ 65,600  |  |

Working capital is critical for the efficient operation of a business. Current assets include cash and assets that will be collected in cash within one year or the normal operating cycle of the company. A business with insufficient working capital may not be able to pay its short term creditors on a timely basis.

Req. 2

 No, contingent liabilities are reported in the notes, not on the balance sheet. Therefore, they are not included in the required computations.

**E9–4.**

Req. 1

November 1

|  |  |  |  |
| --- | --- | --- | --- |
| Cash (+A)  | 4,800,000 |  |  |
|  Note payable (+L)  |  |  | 4,800,000 |
| Borrowed on 6-month, 8%, note payable. |  |  |  |

Req. 2

December 31 (end of the accounting period):

|  |  |  |  |
| --- | --- | --- | --- |
| Interest expense (+E, -SE)  | 64,000 |  |  |
|  Interest payable (+L)  |  |  | 64,000 |
| Adjusting entry for 2 months’ accrued interest ($4,800,000 x 8% x 2/12 = $64,000). |  |  |  |

Req. 3

April 30 (maturity date):

|  |  |  |  |
| --- | --- | --- | --- |
| Note payable (-L)  | 4,800,000 |  |  |
| Interest payable (per above) (-L)  | 64,000 |  |  |
| Interest expense ($4,800,000 x 8% x 4/12) (+E, -SE)  | 128,000 |  |  |
|  Cash (-A)  |  |  | 4,992,000 |
| Paid note plus interest at maturity. |  |  |  |

Req. 4

It is doubtful that long-term borrowing would be appropriate in this situation. After the Christmas season, Neiman Marcus will collect cash from its credit sales. At this point, it does not need borrowed funds. It would be costly to pay interest on a loan that was not needed. It might be possible to borrow for a longer term at a lower interest rate and invest idle cash to offset the interest charges. Neiman Marcus should explore this possibility with its bank but in most cases it would be better to borrow on a short-term basis to meet short-term needs.

**E9–8.**

Req. 1

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Assets | Liabilities | Stockholders’ Equity |
| January 10 | Inventory + | Accounts Payable + | Not Affected |
| March 1 | Cash + | Note Payable + | Not Affected |

Req. 2

 August 31 Cash Paid: $47,250 (Principal plus interest)

Req. 3

Transaction (a) has no impact on cash flows because there is neither an inflow nor an outflow of cash. Transaction (b) results in an inflow of cash from financing activities. The August 31 payment is an outflow of cash. (Note to instructor: If you have emphasized the Statement of Cash Flows, you should discuss the specific nature of these cash flows. The repayment of principal is a cash flow from financing activities and the payment of interest expense is a component of cash flows from operating activities.)

**E9–11.**

Req. 1

 **Year 2014 Year 2015**

Income taxes payable $250,000 $290,000

Increase in deferred tax liability 54,000 58,000

Income tax expense $304,000 $348,000

 Req. 2.

Tax expense is based on income reported on the income statement while tax liability is based on income reported on the tax return. Because different rules govern the preparation of the two statements, the tax expense and taxes currently payable are usually different.

**E9–15.**

Present value of annuity: $20,000 x 4.8684 = $97,368

Because the present value of the annuity is less than the immediate cash payment, the winner should select the cash payment.