## SOLUTIONS

## Multiple Choice

1. $d(40$ hours $\times \$ 20=\$ 800)+(6$ hours $\times \$ 30=\$ 180)$
2. d
3. a Human resource activities include authorizing employees, terminating employees, setting pay rates, and setting withholding allowances. The departments that calculate the payroll or distribute checks should never do this.
4. c Check distribution should be separated from personnel, payroll, and direct supervisory functions.
5. d Both FUTA and SUTA are only employer expenses, and are never paid by employees.
6. b Joe claims one exemption for himself, one for his wife, and one for each child. However, he may claim more exemptions if he has other losses on his income tax return that create constant refunds.
7. c This is either "reasonably possible" or "remote," but unlikely to be "probable."
8. b Payroll tax is only calculated on the amount of the wage base for the year. At the point at which the next dollar of gross pay exceeds the wage base limit, no further tax is due.
9. c
10. c
11. d
12. c Salaries and Wages expense should always be accrued. It is also technically good practice to accrue employer payroll taxes because they are expenses that are created as wage expense is created, even though the obligation for payment does not exist until the payroll is paid. Benefit expenses should also be accrued.
13. d "Consultant" refers to an independent business, not an employee.
14. a
15. c
16. b $\$ 180 / 5=\$ 36$ overtime rate; $\$ 36 / 1.5=\$ 24$ regular pay rate; 40 hours $\times \$ 24=\$ 960$.
17. d The OASDI part is $6.2 \%$ up to an annual maximum that normally increases each year. In this text we approximate the current base amount at $\$ 120,000$. The Medicare part is $1.45 \%$ on all gross wages. Therefore, the total for the year is $(\$ 120,000 \times .062)+(\$ 125,000 \times .0145)=$ \$9,252.50.
18. c The supervisor potentially could submit time cards for fictitious employees and cash the checks.

## SOLUTIONS

## Discussion Questions and Brief Exercises

1. 

a. Journal entry: A journal entry is not necessary.

Long-Term Note Payable<br>85,0000

Current Portion of Long-Term Debt

## Balance sheet:

## Current liabilities

Current portion of long-term debt

Long-term liabilities
Long-term note payable less \$85,000 current portion of long-term debt
b.

1. Assets received but not yet paid for: purchase supplies on account
2. Accrued expense: interest payable
3. Advance payment from customer: unearned revenue
4. Loans payable within a year: two examples-a six-month loan, or the current portion of long-term debt
5. $\$ 100$. Anne-Marie has 4 exemptions and the $\$ 1,600$ is in the bracket of at least $\$ 1,600$ but less than $\$ 1,620$.
6. An employee is an individual who performs services for a business when the business controls (1) what will be done and (2) how it will be done. An independent contractor is an individual who is in business to offer services to the public and who is in full control of the way in which the services are performed. An employee classification results in tax withholding and payroll tax.
7. Form W-2 is an annual document from an employer that reports an employee's gross pay, taxable gross pay, and withholding items for a calendar year. (Other items may also be reported on the W-2 such as employer reimbursements and retirement plan contributions.) Form W-4 is used by the employer to determine employee filing status (married, single, etc.) and the number of withholding allowances claimed by the employee. A W-4 is submitted by an individual at the time that individual is hired as an employee.
8. An employee earnings record is a legally required record of an employee's gross pay, withholding, and net pay that must be maintained by an employer for each employee. The earnings record is necessary because it shows for each employee the gross wages, withholding, and net pay for each pay period, as well as the year-to-date cumulative amount. The primary use of the employee earnings record is as the source of the information that is entered on form W-2. The cumulative information is also useful for indicating when wage base limits are reached.
9. FICA is an acronym that stands for Federal Insurance Contribution Act. This is the law that created the Social Security system. FICA imposes a tax that consists of two parts. The first part is OASDI (Old Age and Survivor's Disability Insurance). The second part is Medicare, added in 1965, which provides a minimum level of medical insurance coverage. OASDI tax is calculated as a percentage of gross wages up to maximum gross wage amount, referred to as the wage base. The Medicare tax is a percentage of all gross wages. In this text, we use $7.65 \%$ on a wage base of $\$ 120,000$ for OASDI and $1.45 \%$ on all wages for Medicare. FICA is paid by employees, and then an equal amount is matched by the employer.

## SOLUTIONS Learning Goal 20, continued

7. FUTA is an acronym for "Federal Unemployment Tax Act", and SUTA is an acronym for "State Unemployment Tax Act." These are programs that provide temporary income to unemployed workers. FUTA and SUTA are taxes that are imposed only upon employers, and not on employees. The FUTA rate is $6 . \%$; however, a credit of up to $5.4 \%$ is allowed to states that impose state unemployment taxes.
8. Federal and state income tax withholding are not employer expenses. The employer is simply holding back some of the employee pay that the employee will need to pay income taxes. Soon after the end of the payroll period the employer transfers the withheld amounts to the federal and state taxing authorities.
9. Average daily pay $\$ 170 \times 30$ employees $\times 1.5$ days per employee $=\$ 7,650$.

| Vacation Pay Expense | 7,650 |  |
| :---: | :---: | :---: |
| Vacation Pay Liabilitiy |  | 7,650 |

10. A payroll register is used to record all the wages and withholding for each payroll period. It is often the source of the journal entry for that period's payroll. It is also the source of the information that flows into the each employee's earnings record. An employee earnings record is a legally required permanent record maintained for each employee. (See 5 above.)
11. Internal control for payroll:

- Separation of duties: The payroll calculations are prepared by people who do not work in the Human Resources (Personnel) Department and who do not distribute paychecks or have access to cash.
- Time cards: Time cards are maintained to record the hours worked. Time card use is supervised and checked for accuracy.
- Double check: Payroll calculations are independently checked for accuracy by another person in the payroll or accounting department. If a computer is used for calculations, calculations are randomly sampled and verified.
- Paycheck distribution controls: Paychecks are not distributed by immediate supervisors, and a photo ID is required to obtain a paycheck or a paycheck is sent directly to an employee.
- Other payment controls: Payroll bank accounts, independent payroll services, and use of voucher system.

12. Wrong. The SUTA tax (and other payroll taxes) should be calculated on the amount of current gross pay that does not exceed the wage base limit. Because January is the first month of the year, we can safely assume that Dave's cumulative gross pay is the same as his January gross pay, which is $\$ 4,500$ and which does not exceed the SUTA limit of $\$ 7,000$. Therefore, the SUTA tax should be calculated on the full $\$ 4,500$ : $\$ 4,500 \times .054=\$ 243$.
13. FLSA refers to the Fair Labor Standards Act, which is a federal law. This law affects many aspects of employment, especially working conditions and pay rates. In particular, the FLSA sets the minimum hourly wage. It also sets the number of hours an employee works to be paid overtime as well as the minimum overtime rate of pay.
14. Gross pay: $(\$ 20 \times 40$ hours $)+(8$ hours and $\$ 30)=\$ 1,040$. Net pay: $\$ 1,040-\$ 220$ income tax $(\$ 1,040 \times .0765$ FICA $)=\$ 740.44$.
15. First, an employer pays gross wages to employees. Second, an employer pays payroll taxes (FICA, FUTA, SUTA, and sometimes additional state and local taxes). Third, many employers also pay employee benefits such as medical insurance and retirement plan payments.
16. Identify employees, calculate the payroll, record the payroll, make payments, submit forms and reports.

## SOLUTIONS Learning Goal 20, continued

17. FICA, $\$ 30,000 \times .0765=\$ 2,295 ;$ SUTA, $\$ 30,000 \times .054=\$ 1,620 ;$ FUTA, $\$ 30,000 \times .006=\$ 180$.

| Payroll Tax Expense | 4,095 |  |
| :---: | ---: | ---: |
| FICA Payable |  | 2,295 |
| SUTA Payable | 1,620 |  |
| FUTA Payable | 180 |  |

18. 

Salary Expense 124,000
Federal Income Tax Payable 32,000
State Income Tax Payable 6,500
FICA Payable 9,238
Medical Insurance Payable 1,800
Salary Payable 74,462
Benefits Expense $\quad 1,800$
Payroll Tax Expense 9,658
FICA Payable 9,238
SUTA Payable 378
FUTA Payable 42
Medical Insurance Payable $\quad 1,800$

## Calculations:

FICA: $(\$ 120,000 \times .0765)+(\$ 4,000 \times .0145)=\$ 9,238$
SUTA: $\$ 7,000 \times .054=\$ 378$
FUTA: $\$ 7,000 \times .006=\$ 42$
Medical insurance: The employer pays $50 \%$, so that would equal the amount of medical insurance withholding from the employee.

LG 20-1.
a.

Item c: $\$ 30,000+\$ 18,000=\$ 48,000$
Item f: $\$ 48,000 \times 0765=\$ 3,672$ (Note: The problem does not indicate that any payroll tax wage base
limits have been exceeded. This is because it is January, and it is the first payroll month.)
Item h: \$48,000 - \$6,800 - \$900 - \$3,672 - \$1,000 = \$35,628
Item i: $\$ 48,000 \times .054=\$ 2,592$
Item j: $\$ 48,000 \times .006=\$ 288$
Item m: $\$ 3,672+\$ 2,592+\$ 288+\$ 2,500+\$ 750=\$ 9,802$ (Employer matches employee FICA.)

## SOLUTIONS

## Learning Goal 20, continued

## LG 20-1, continued

b.

| August 31 | Wages Expense | 48,000 |  |
| :---: | :---: | ---: | ---: |
|  | Federal Income Tax Payable |  | 6,800 |
|  | State Income Tax Payable |  | 900 |
|  | FICA Payable |  | 3,672 |
|  | Charitable Contributions Payable |  | 1,000 |
|  | Wages Payable |  | 35,628 |
|  |  | 6,552 |  |
|  | Payroll Tax Expense |  | 3,672 |
|  | FICA Payable |  | 2,592 |
|  | SUTA Payable |  | 288 |
|  | FUTA Payable |  |  |
|  |  | 2,500 | 750 |
|  | Employee Benefits Expense |  |  |
|  | Pension Plan Expense |  |  |
|  | Benefits and Pension Plan Payable |  |  |
|  |  |  |  |

LG 20-2.

| August 31 | Wages Expense | 70,000 |  |
| :--- | :--- | ---: | ---: |
|  | Federal Income Tax Payable |  | 9,800 |
|  | State Income Tax Payable |  | 2,870 |
|  | FICA Payable |  | 5,107 |
|  | Union Dues Payable |  | 220 |
|  | Wages Payable |  | 52,003 |
|  |  | 6,007 |  |
|  | Payroll Tax Expense |  | 5,107 |
|  | FICA Payable |  | 810 |
|  | SUTA Payable |  | 90 |
|  | FUTA Payable | 2,400 |  |
|  | Employee Benefits Expense |  |  |
|  | Pension Plan Expense |  |  |
|  | Benefits and Pension Plan Payable |  | 4,850 |
|  |  |  |  |

## SOLUTIONS

## LG 20-3.

a.

Evelyn
Step 1:
Wage Base \$ 120,000
Cumulative gross pay Cumulative excess non-taxable

Step 2:
Current gross pay $\quad \$ 4,750$ Excess Current taxable

Step 3:
OASDI: $\$ 3,500 \times .062$
Medicare: $\$ 4,750 \times .0145$ Current FICA tax
$(1,250)$
\$3,500
\$217.00
68.88
$\underline{\underline{\$ 285.88}}$

## Sue

## Step 1:

| Wage Base | $\$ 120,000$ |
| :--- | ---: |
| Cumulative gross pay | 96,900 |
| No cumulative excess - go | $\$ 23,100$ |
| to step 3 |  |

Step 2:

## Step 3:

Current FICA tax: $\$ 2,800 \times .0765$
$\underline{\underline{\$ 214.20}}$
b.

OASDI: $\$ 120,000 \times .062$
\$7,440.00
1,758.13
$\overline{\$ 9,198.13}$

Current FICA tax: $\$ 96,900 \times .0765$

## LG 20-4.

a. Kenai Company

| Oct. 12 | Wages Expense | $6,350.00$ |  |
| :---: | :---: | ---: | ---: |
|  | Federal Income Tax Payable |  | $1,427.00$ |
|  | FICA Payable |  | 386.58 |
|  | Wages Payable |  | $4,536.42$ |
|  |  |  | 434.58 |
|  | Payroll Tax Expense |  | 386.58 |
|  | FICA Payable |  | 43.20 |
|  | SUTA Payable |  | 4.80 |
|  | FUTA Payable |  |  |

## SOLUTIONS

## Learning Goal 20, continued

## LG 20-4, continued

## Calculations:

- Gross wages: Chignik has earned 4 hours of overtime. Chignik's overtime rate is $\$ 25 \times 1.5=$ $\$ 37.50$. Therefore, Chignik's gross wages are ( 40 hours $\times \$ 25$ ) $+(4$ hours $\times \$ 37.5)=\$ 1,150$. None of the other employees have overtime, so the total gross wages are $\$ 1,200+\$ 1,150+$ $\$ 1,600+\$ 2,400=\$ 6,350$.
- FICA: This is $7.65 \%$ times the gross wages of all the employees except Sagamore. Only $\$ 800$ of Sagamore's current earnings are subject to the $6.2 \%$ OASDI tax ( $\$ 120,000$ wage base - $\$ 119,200$ ). All of Sagamore's earnings are subject to the $1.45 \%$ Medicare tax. Therefore, $(\$ 800 \times .062)+$ $(\$ 2,400 \times .0145)=\$ 84.40$ total for Sagamore. For all of the other employees, the calculation is: $\$ 3,950 \times .0765=\$ 302.18$.
- SUTA: All the employees have exceed the $\$ 7,000$ SUTA wage base except Peters. $\$ 800$ of Peters' gross wages are subject to SUTA tax: $\$ 800 \times .054=\$ 43.20$.
- FUTA: All the employees have exceed the $\$ 7,000$ FUTA wage base except Peters. $\$ 800$ of Peters' gross wages are subject to FUTA tax: $\$ 800 \times .006=\$ 4.80$.
b. Talkeetna Company

| Oct. 31 | Wages Expense | $4,060.00$ |  |
| :---: | :---: | :---: | :---: |
|  | Wages Payable |  | $4,060.00$ |
|  |  |  |  |
|  | Payroll Tax Expense | 191.63 |  |
|  | FICA Payable |  | 156.83 |
|  | SUTA Payable |  | 31.32 |
|  | FUTA Payable |  | 3.48 |
|  |  |  |  |

## Calculations:

- Gross wages: For the hourly employees the gross wage are ( 24 hours $\times \$ 20$ ) $+(24$ hours $\times \$ 45)+$ $(20$ hours $\times \$ 35)=\$ 2,260$. For Tok, the weekly salary is prorated for three days: $\$ 3,000 / 5=\$ 600$ per day. For three days: $3 \times \$ 600=\$ 1,800$. Total for all employees: $\$ 2,260+\$ 1,800=\$ 4,060$.
- FICA: The current gross pay of Abrams and Wenham are fully taxable for FICA because the cumulative wages are less than the $\$ 120,000$ tax base. For Cantwell, $\$ 400$ of the current wages are subject to the OASDI tax base ( $\$ 120,000-\$ 119,600$ ), and all of the current earnings are subject to Medicare tax. Tok has exceeded the OASDI tax base, so the current gross earnings are subject only to Medicare tax.
Abrams and Wenham: $\$ 1,180 \times .0765=\$ 90.27$
Cantwell: $(\$ 400 \times .062)+(\$ 1,080 \times .0145)=\$ 40.46$
Tok: $\$ 1,800 \times .0145=\$ 26.10$
- SUTA: The full $\$ 480$ of Abram's current gross wages are taxable for SUTA, and $\$ 100$ of Wenham's wages are taxable for SUTA $(\$ 7,000-\$ 6,900)$. SUTA tax is $\$ 580 \times .054=\$ 31.32$.
- FUTA: The full $\$ 480$ of Abram's current gross wages are taxable for FUTA, and $\$ 100$ of Wenham's wages are taxable for FUTA ( $\$ 7,000-\$ 6,900$ ). FUTA tax is $\$ 580 \times .006=\$ 3.48$.
Comment: Notice that because the accounting period has ended, the wages expense and the payroll tax expense must be accrued. However, because the payroll period will not end until Friday, it is not necessary to calculate the employee withholding until Friday, when the total wages for the payroll period will be known.


## LG 20-5.

a. Current liability (an accrued expense)
b. Not a liability. Employee withholding is not a liability until the employees are paid (end of payroll period).
c. Current liability
d. Current liability and/or long-term liability depending on terms of warranty (an accrued expense that can be reasonably estimated)
e. Current liability (unearned revenue)
f. Not a recordable liability; possibility is remote
g. Current liability
h. Long-term liability
i. Not a recordable liability; probably should be disclosed in footnotes as reasonably possible
j. Current liability (unearned revenue)
k. Current liability (an accrued expense)

1. Current liability (an accrued expense that can be reasonably estimated)
m . Current liability (an accrued expense that can be reasonably estimated)

LG 20-6.

| Cumulative <br> Gross Pay <br> Through <br> November 30 | Current <br> Gross Pay: <br> December | Cumulative <br> Gross Pay <br> Year to <br> Date | Current <br> Gross Pay <br> Subject to <br> OASDI Tax | Current Gross <br> Pay Subject <br> to Medicare <br> Tax | December <br> OASDI <br> Withheld | December <br> Medicare <br> Withheld |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\$ 44,300$ | $\$ 3,750$ | $\$ 48,050$ | $\$ 3,750$ | $\$ 3,750$ | $\$ 232.50$ | $\$ 54.38$ |
| $\$ 114,150$ | $\$ 7,200$ | $\$ 95,350$ | $\$ 5,850$ | $\$ 7,200$ | $\$ 362.70$ | $\$ 104.40$ |
| $\$ 120,700$ | $\$ 3,550$ | $\$ 124,250$ | $-0-$ | $\$ 3,550$ | $-0-$ | $\$ 51.47$ |
| $\$ 117,900$ | $\$ 5,200$ | $\$ 123,500$ | $\$ 2,100$ | $\$ 5,200$ | $\$ 130.20$ | $\$ 75.40$ |

LG 20-7.

| May 15 | Sales Salaries Expense | 5,150 |  |
| :--- | :--- | ---: | ---: |
|  | Office Wages Expense | 3,330 |  |
|  | Federal Income Tax Payable |  | 1,400 |
|  | State Income Tax Payable |  | 410 |
|  | FICA Payable |  | 620 |
|  | Union Dues Payable |  | 125 |
|  | Salaries and Wages Payable |  | 5,925 |

Note: The Salaries and Wages Payable is calculated as the total gross pay minus the total withholding items. There is no particular order for the withholding liabilities, but Salaries and Wages Payable is generally shown as the last credit item.

## SOLUTIONS Learning Goal 20, continued

## LG 20-8.

Don's gross pay is $\$ 1,000+(\$ 21,500 \times .1)=\$ 3,150$. Don's net pay is his gross pay minus the withholding amounts, which are:
Federal income tax: $\$ 3,150 \times .15=\$ 472.50$
State income tax: $\$ 3,150 \times .03=\$ 94.50$
FICA: $\$ 3,150 \times .0765=\$ 240.97$
Savings plan: $\$ 50.00$
Total: \$857.97
Therefore net pay is: $\$ 3,150-\$ 857.97=\$ 2,292.03$

LG 20-9.

| Date | Account | Post <br> Ref. | Dr. | Cr. |
| :---: | :---: | :---: | :---: | :---: |
| March 31 | Sales Salaries Expense |  | $3,150.00$ |  |
|  | Federal Income Tax Payable |  |  | 472.50 |
|  | State Income Tax Payable |  |  | 94.50 |
|  | FICA Payable |  |  | 240.97 |
|  | Savings Administrator Payable |  |  | 50.00 |
|  | Salaries and Wages Payable |  |  | $2,292.03$ |
|  |  |  |  |  |
|  | Payroll Tax Expense |  | 294.97 |  |
|  | FICA Payable |  |  | 240.97 |
|  | SUTA Payable |  |  | 48.60 |
|  | FUTA Payable |  |  | 5.40 |
|  |  |  |  |  |

## Calculations:

FICA: $\$ 3,150 \times .0765=\$ 240.97$ (same as withholding)
SUTA: $\$ 900 \times .054=\$ 48.60$
FUTA: $\$ 900 \times .006=\$ 5.40$

## SOLUTIONS

LG 20-10.
(Note: Payroll register continues on next page.)

| Payroll Register for the Week |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employee Name | Tot. <br> Hrs. | Earnings |  |  |  | Current Gross <br> Taxable for . . . |  |
|  |  | Regular | Overtime | Current <br> Gross | YTD <br> Gross | FUTA/ <br> SUTA | FICA <br> (OASDI) |
| Evans | 41 | \$800 | \$30.00 | \$830.00 | \$7,430.00 | \$400.00 | \$830.00 |
| Griffin |  | \$3,100 | -0- | \$3,100.00 | \$121,650.00 | -0- | \$1,450.00 |
| Klosterman | 40 | \$1,000 | -0- | \$1,000.00 | \$49,000.00 | -0- | \$1,000.00 |
| Theriault | 40 | \$760 | -0- | \$760.00 | \$7,530.00 | \$230.00 | \$760.00 |
| Walzak | 45 | \$880 | \$165.00 | \$1,045.00 | \$36,845.00 | -0- | \$1,045.00 |
| Total |  | \$6,540 | \$195.00 | \$6,735.00 | \$196,455.00 | \$630.00 | \$5085.00 |

Journal:

| Nov. 8 | Office Salaries Expense | $3,100.00$ |  |
| :---: | :--- | ---: | ---: |
|  | Sales Wages Expense | $3,635.00$ |  |
|  | Federal Income Tax Payable |  | $1,195.00$ |
|  | State Income Tax Payable |  | 267.00 |
|  | FICA Payable |  | 412.92 |
|  | Health Plan Administrator |  | 140.00 |
|  | Salaries and Wages Payable |  | $4,720.08$ |
|  |  |  | 450.72 |
|  | Payroll Tax Expense |  | 412.92 |
|  | FICA Payable |  | 34.02 |
|  | SUTA Payable |  | 3.78 |
|  | FUTA Payable |  |  |
|  | Benefits Expense |  | 550.00 |
|  | Benefits Plan Administrator Payable |  | 550.00 |

## SOLUTIONS

LG 20-10, continued

| Ended November 8, 200X |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Deductions |  |  |  |  | Payments |  | Office <br> Salaries | Sales <br> Wages |
| Fed. Inc. Tax | State Inc. Tax | OASDI/ <br> Medicare | Health Insurance | Total | Net Pay | Ck \# |  |  |
| \$120.00 | \$25.00 | \$63.49 | \$28.00 | \$236.49 | \$593.51 | 704 |  | \$830.00 |
| \$470.00 | \$110.00 | \$134.85 | \$28.00 | \$742.85 | \$2,357.15 | 705 | \$3,100.00 |  |
| \$240.00 | \$44.00 | \$76.50 | \$28.00 | \$388.50 | \$611.50 | 706 |  | \$1,000.00 |
| \$155.00 | \$38.00 | \$58.14 | \$28.00 | \$279.14 | \$480.86 | 707 |  | \$760.00 |
| \$210.00 | \$50.00 | \$79.94 | \$28.00 | \$367.94 | \$677.06 | 708 |  | \$1,045.00 |
| \$1195.00 | \$267.00 | \$412.92 | \$140.00 | \$2,014.92 | \$4,720.08 |  | \$3,100.00 | \$3,635.00 |

## Calculation Notes:

Overtime:

- Evans: $\$ 800 / 40=\$ 20 / \mathrm{hr} \times 1.5=\$ 30 / \mathrm{hr} \times 1 \mathrm{hr} . \$ 30$
- Walzak: $\$ 880 / 40=\$ 22 / \mathrm{hr} \times 1.5=\$ 33 / \mathrm{hr} \times 5 \mathrm{hrs} . \$ 165$

OASDI \& Medicare withholding:

- All employees except Griffin are below $\$ 120,000$ OASDI base, so the full current gross wages are subject to the .0765 rate.
- For Griffin, $\$ 120,000-\$ 118,550=\$ 1,450$ subject to OASDI tax. The full $\$ 3,100$ is subject to Medicare. Therefore, for Griffin: $(\$ 1,450 \times .062)+(\$ 3,100 \times .0145)=\$ 134.85$ withholding.

Wages subject to FUTA/SUTA:

- Evans: $\$ 7,000-\$ 6,600=\$ 400$ taxable
- Theriault: $\$ 7,000-\$ 6,770=\$ 230$ taxable


## SOLUTIONS

## LG 20-11.

a.

| March 31 | Sales Wages Expense | 168,000 |  |
| :--- | :--- | ---: | ---: |
|  | Administrative Salary Expense | 325,000 |  |
|  | Sales Commissions Expense | 112,000 |  |
|  | Federal Income Tax Payable |  | 134,200 |
|  | State Income Tax Payable |  | 18,300 |
|  | FICA Payable |  | 38,240 |
|  | Medical Insurance Payable |  | 12,200 |
|  | Salaries, Wages, \& Commissions Payable |  | 402,060 |

b.

| March 31 | Payroll Tax Expense | 44,580 |  |
| :---: | :---: | ---: | ---: |
|  | FICA Payable (same as employees) |  | 39,780 |
|  | SUTA Payable $(80,000 \times .054)$ |  | 4,320 |
|  | FUTA Payable $(80,000 \times .006)$ |  | 480 |
|  |  | 35,800 |  |
|  | Medical Insurance Expense | 24,400 |  |
|  | Workman's Compensation Ins. Expense |  | 35,800 |
|  | Medical Insurance Payable |  | 24,400 |
|  | Workman's Comp. Insurance Payable |  |  |

LG 20-12.

|  | Wages Expense | 9,585.00 |  |
| :---: | :---: | :---: | :---: |
|  | Federal Income Tax Payable |  | 1,360.00 |
|  | State Income Tax Payable |  | 285.00 |
|  | FICA Payable |  | 671.25 |
|  | Health Insurance Plan Payable |  | 195.00 |
|  | Wages Payable |  | 7,073.75 |
|  |  |  |  |
|  | Payroll Tax Expense | 763.95 |  |
|  | FICA Payable |  | 671.25 |
|  | SUTA Payable |  | 83.43 |
|  | FUTA Payable |  | 9.27 |
|  |  |  |  |
|  | Employee Benefits Expense | 780.00 |  |
|  | Benefits and Pension Plan Payable |  | 780.00 |
|  |  |  |  |
|  | Vacation Pay Expense | 766.80 |  |
|  | Vacation Pay Liability |  | 766.80 |
|  |  |  |  |
|  | (For Walker) |  |  |
|  | Vacation Pay Liability | 2,000.00 |  |
|  | Federal Income Tax Payable |  | 350.00 |
|  | State Income Tax Payable |  | 100.00 |
|  | FICA Payable |  | 153.00 |
|  | Health Insurance Plan Payable |  | 35.00 |
|  | Cash |  | 1,362.00 |
|  |  |  |  |
|  | Payroll Tax Expense | 153.00 |  |
|  | FICA Payable |  | 153.00 |
|  |  |  |  |
|  | Employee Benefits Expense | 140.00 |  |
|  | Benefits and Pension Plan Payable |  | 140.00 |
|  |  |  |  |

## Calculations:

- Gross wages: Chen has earned 2 hours of overtime and Siler has earned 8 hours. Chen's overtime rate is $\$ 1,200 / 80=\$ 15 \times 1.5=\$ 22.50$. Siler's rate is $\$ 1,600 / 80=\$ 20 \times 1.5=\$ 30$. Therefore, Chen's gross wages are $\$ 1,245$, and Siler's gross wages are $\$ 1,840$.
- FICA: The earnings of all employees except Grossman are fully within the FICA $\$ 120,000$ wage base. Grossman has earned $\$ 117,700$ prior to this period, so only $\$ 2,300$ of Grossman's current earnings are taxable for the OASDI $6.2 \%$ rate. The full amount is subject to the Medicare $1.45 \%$ rate. Grossman: $(\$ 2,300 \times .062)+(\$ 3,300 \times .0145)=\$ 190.45$. All other employees: $(\$ 6,285 \times .0765)=\$ 480.80$. Total FICA is therefore $\$ 671.25$.


## SOLUTIONS Learning Goal 20, continued

## LG 20-12, continued

- SUTA: All of Chen's earnings are within the $\$ 7,000$ SUTA wage base. $\$ 300$ of Siler's earnings are within the SUTA wage base. $\$ 1,545 \times .054=\$ 83.43$.
- FUTA: All of Chen's earnings are within the $\$ 7,000$ FUTA wage base. $\$ 300$ of Siler's earnings are within the FUTA wage base. $\$ 1,545 \times .006=\$ 9.27$
- Employer medical plan expense. Employees pay 20\%, so the total cost is $\$ 195 / .2=\$ 975$. $\$ 975 \times .8=\$ 780$
- Vacation pay expense: 2 weeks per year is $8 \%$ per biweekly payroll period for the 50 weeks worked ( $2 / 25$ biweekly periods $=8 \%$ ). Therefore, $\$ 9,585 \times .08=\$ 766.80$.

LG 20-13.
a. The regular pay rate is $\$ 1,200 / 40=\$ 30 /$ hour. The overtime rate is therefore $\$ 30 \times 1.5=\$ 45$. Gross pay: $\$ 1,200+(\$ 45 \times 6)=\$ 1,470$.

Net pay is gross pay minus withholding. Net is calculated as:
$\qquad$
Less:
FICA withheld (. $0765 \times \$ 1,470$ ) . . . . . . . . . . . . . . . $\$ 112.46$
Federal income tax withheld $(\$ 1,470 \times .2) \ldots . .$. . 294.00
Child support wage garnishment . . . . . . . . . . . . . . . 200.00
Total withholding . . . . . . . . . . . . . . . . . . . . . . . . . .
606.46

Net pay................................................ . . .
b. Watson's wages expense, withholding, and net pay:

| May 10 | Wages Expense | $1,470.00$ |  |
| :---: | :--- | :---: | :---: |
|  | Federal Income Tax Payable |  | 294.00 |
|  | FICA Payable |  | 112.46 |
|  | Garnishment Payable |  | 200.00 |
|  | Wages Payable |  | 863.54 |
|  |  |  |  |

## SOLUTIONS Learning Goal 20, continued

## LG 20-13, continued

The employer's payroll tax expense:

| May 10 | Payroll Tax Expense | 148.46 |  |
| :---: | :---: | ---: | ---: |
|  | FICA Payable |  | 112.46 |
|  | SUTA Payable $(600 \times .054)$ |  | 32.40 |
|  | FUTA Payable $(600 \times .006)$ |  | 3.60 |
|  |  | 44.10 |  |
|  | Medical Insurance Expense |  | 44.10 |
|  | Medical Insurance Payable |  |  |

The cash payment to Watson on May 12:

| May 12 | Wages Payable | 863.54 |  |
| :---: | :---: | :---: | :---: |
|  | Cash |  | 863.54 |
|  |  |  |  |

The cash payment to pay all payroll taxes on May 15:

| May 12 | Federal Income Tax Payable | 294.00 |  |
| :--- | :--- | ---: | ---: |
|  | FICA Payable | 224.92 |  |
|  | SUTA Payable | 32.40 |  |
|  | FUTA Payable | 3.60 |  |
|  | Cash |  | 554.92 |
|  |  |  |  |

Note: The cash payment for all payroll taxes includes payment for both employer and employee FICA: $\$ 112.46 \times 2=\$ 224.92$.

LG 20-14.
(Note: Payroll register continues on next page.)

| Payroll Register for the Semi-Monthly |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employee Name | Tot. Hrs. | Earnings |  |  |  | Current Gross Taxable for . . . |  |
|  |  | Regular | Overtime | Current Gross | $\begin{aligned} & \text { YTD } \\ & \text { Gross } \end{aligned}$ | FUTA/ <br> SUTA | FICA (OASDI) |
| Curtis, R. | 80 | 3,200 | -0- | 3,200 | 44,500 | -0- | 3,200 |
| Fisher, Y. | 85 | 1,280 | 120 | 1,400 | 4,100 | 1,400 | 1,400 |
| McLeod, S. |  | 7,500 | -0- | 7,500 | 123,100 | -0- | 4,400 |
| Slocum, P. |  | 4,800 | -0- | 4,800 | \$123,500 | -0- | 1,300 |
| Teruya, M. | 84 | 1,520 | 114 | 1,634 | 49,600 | -0- | 1,634 |
| Total | - | 18,300 | 234 | 18,534 | 344,800 | 1,400 | 11,934 |

## Calculations:

Curtis:
a. Because the YTD gross is less than $\$ 120,000$, we know that all the current wages are subject to combined OASDI/Medicare rates.
b. The YTD gross exceeds the FUTA/SUTA limit of $\$ 7,000$ by much more than the current gross pay, so none of the current gross will be taxed for this.

## Fisher:

a. The overtime rate is $\$ 120 / 5 \mathrm{hrs} .=\$ 24 / \mathrm{hr}$.
b. The regular rate is therefore $\$ 24 / 1.5=\$ 16 / \mathrm{hr}$.
c. Current regular pay is therefore $80 \times \$ 16=\$ 1,280$.
d. Because the YTD gross is less than $\$ 120,000$, we know that all the current wages are subject to combined OASDI/Medicare rates.
e. To determine federal income tax withholding, locate $\$ 1,400$ in the "at least" column of the tax table and look for the column with 3 exemptions.
f. The full $\$ 1,400$ is subject to FUTA/SUTA because the YTD gross does not exceed $\$ 7,000$.

## McLeod:'

a. Current period gross pay is $\$ 300.00 / .04$ state tax rate $=\$ 7,500$.
b. The YTD gross is $\$ 123,100$ so $(\$ 123,100-\$ 7,500)=\$ 115,600$, the YTD gross preceding the current payroll period. Therefore, $(\$ 120,000-\$ 115,600=\$ 4,400)$, the portion of the current gross pay subject to both OASDI/Medicare. The excess above $\$ 120,000$ is also subject to the $1.45 \%$ Medicare rate.

SOLUTIONS

## LG 20-14, continued

| Period Ended November 12, 20XX |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Deductions |  |  |  |  | Payments |  |  |  |
| Fed. Inc. Tax | State Inc. Tax | OASDI/ <br> Medicare | Health Insurance | Total | Net Pay | Ck \# | Admin. Salaries | Sales <br> Wages |
| 440.00 | 128.00 | 244.80 | 32.00 | 844.80 | 2,355.20 | 250 |  | 3,200 |
| 89.00 | 56.00 | 107.10 | 12.80 | 264.90 | 1,135.10 | 251 |  | 1,400 |
| 652.50 | 300.00 | 381.55 | 75.00 | 1,409.05 | 6,090.95 | 252 | 7,500 |  |
| 895.00 | 192.00 | 150.20 | 48.00 | 1,285.20 | 3,514.80 | 253 | 4,800 |  |
| 103.00 | 65.36 | 125.00 | 15.20 | 308.56 | 1,325.44 | 254 |  | 1,634 |
| 2,179.50 | 741.36 | 1,008.65 | 183.00 | 4,112.51 | 14,421.49 | ... | 12,300 | 6,234 |

## Slocum:

a. The part of current gross pay subject to OASDI/Medicare is $\$ 1,300$. The OASDI tax on this is $\$ 1,300 \times .062=\$ 80.60$. The total OASDI/Medicare for the current period is $\$ 150.20$.
Therefore, the Medicare portion is $\$ 150.20-\$ 80.60=\$ 69.60$. We can now calculate current period gross pay because we know that the Medicare rate is $1.45 \%$ of all gross pay. So $\$ 69.60$ / $.0145=\$ 4,800$ current period gross pay.
b. We can calculate the YTD gross pay because we know that in the current period only $\$ 1,300$ of the $\$ 4,800$ was subject to the combined OASDI/Medicare tax. This limit is $\$ 120,000$. Therefore, $(\$ 120,000-\$ 1,300)=\$ 118,700$ YTD gross pay preceding the current period. $\$ 118,700+\$ 4,800=$ \$123,500 YTD gross pay.

## Teruya:

a. Health insurance is $1 \%$ of regular pay, so regular pay is $\$ 15 \cdot 20 / .01=\$ 1,520$.
b. The regular pay rate is therefore $\$ 1,520 / 80 \mathrm{hrs} .=\$ 19 / \mathrm{hr}$. Therefore, the overtime pay rate is $\$ 19 \times 1.5=\$ 28.50 / \mathrm{hr}$.
c. Overtime pay is $\$ 28.50 / \mathrm{hr} \times 4 \mathrm{hrs} .=\$ 114$.

LG 20-15.

| Form/Report | Frequency | What For |
| :--- | :--- | :--- |
| Form 941/Employer's Federal Payroll <br> Tax Return | Quarterly | Reports the liability and withholding for <br> federal income tax, employer/employee <br> FICA, and Medicare |
| Form XXX/Employer's State Payroll <br> Tax Return | Quarterly | Reports the liability and withholding for <br> state income tax, SUTA, and other state <br> taxes |
| Form 940/Employer's Federal Unemploy- <br> ment Tax Return | Annual <br> (year end) | Reports the liability and withholding <br> for FUTA |
| Form W-2 (copies)/Employee Wage and Tax <br> Statement | Annual <br> (year end) | Reports the employee gross pay and with- <br> holding for the year; sent to federal, state, <br> and local taxing authorities |
| Form W-3/Transmittal form | Annual <br> (year end) | Summary federal transmittal form that <br> must accompany the copies of the W-2 and <br> 1099 (below) |
| Form 1099 (copies)/Non-Employee <br> Compensation Statement | Annual <br> (year end) | Reports a non-employee's compensation <br> and withholding; sent to federal, state, and <br> local taxing authorities |

