# Solutions to Chapter 1 Problem Assignments

Check Your Understanding

1. [LO 1.1] *What is a tax?*

What is a tax? How does a tax differ from a fine?

**Solution:** A tax is a payment that is not voluntary but is required to be paid to a governmental unit to support its operations; it is not based on the value of goods or services the person or business receives, however. A fine is levied as a result of an unlawful act.

2. [LO 1.1] *Constitutional Authority*

What Constitutional Amendment allowed implementation of an income tax? In what year was it ratified?

**Solution:** The federal income tax system as we know it today did not begin until 1913 when the 16th Amendment to the U.S. Constitution was ratified. The 16th Amendment gave Congress the power to lay and collect taxes “on income, from whatever source derived,” without the previous requirement that all direct taxes be imposed based on population.

3. [LO 1.1] *Current Tax Code*

Which version of the tax code is applicable today?

**Solution:** The Tax Reform Act of 1986 was so extensive, the Code was renamed the *Internal Revenue Code of 1986*. Any current changes to the tax laws are now amendments to the *Internal Revenue Code of 1986.*

4. [LO 1.1] *Tax Expenditures*

Define tax expenditure?

**Solution:** Tax expenditures can take the form of special exclusions, deductions, credits or preferential rates for specific activities. These tax expenditures result in a reduction in the revenue that would be collected under a more comprehensive income tax.

5. [LO 1.1] *SALT*

What is a SALT practice?

**Solution:** The practice of state and local taxation is commonly referred to as a SALT practice.

6. [LO 1.1] *Franchise Tax*

How does a franchise tax differ from an income tax?

**Solution:** A franchise tax is an excise tax based on the right to do business or own property in a state. It is, however, usually determined based on corporate income so would, in effect, simply be another name for the income tax.

7. [LO 1.1] *State Income Allocation*

What three factors determine the percentage of corporate income allocated to a particular state?

**Solution:** The three-factor allocation formula uses a percentage of corporate sales, payroll costs, and tangible property allocated to the state.

8. [LO 1.1] *Employment Taxes*

What employment taxes are imposed on an employee and an employer?

**Solution:** An employee pays the Social Security and Medicare (FICA) tax; the employer also pays an equivalent Social Security and Medicare (FICA) tax, but the employer also may have to pay an unemployment tax.

9. [LO 1.1] *Wealth Taxes*

What is the most common wealth tax and how is it levied?

**Solution:** The most common wealth tax is the real property tax based on the fair market value of property owned by an individual or a business.

10. [LO 1.1] *Intangible Tax*

What property is subject to the intangible tax?

**Solution:** The intangible tax is levied on intangible property such as receivables, stocks, bonds, and other forms of investment instruments owned by businesses and individuals.

11. [LO 1.1] *Estate and Gift Tax*

Explain the integration of the gift and estate taxes.

**Solution:** Property that is given away during a lifetime that exceeds a certain amount is subject to a gift tax after using up a lifetime exemption. When the person passes away, property that the person still owned (had not given away) is now subject to the estate tax. Any gift tax exemption that has not been used by the decedent is then available as an exemption from the estate tax. Thus, a decedent’s estate escapes taxation unless his or her total lifetime taxable gifts plus taxable transfers at death exceed the lifetime exclusion.

12. [LO 1.1] *Consumption vs Income Tax*

Differentiate a consumption based tax from an income tax and illustrate with an example.

**Solution:** A consumption tax is levied on purchases of goods or services that are going to be used or consumed. The most common consumption tax is the sales tax, but the value-added tax is another form used in many countries outside the United States. The income tax is based on the value of money or goods that are received, whether it is spent or saved. An income tax will tax money that is going to be saved rather than spent while the consumption tax only taxes money that is spent. The consumption tax is thought to encourage savings.

13. [LO 1.1] *Wealth Taxes*

Differentiate a wealth tax from a wealth transfer tax and give examples of each.

**Solution:** A wealth tax is based on the value of wealth that a person has at a particular point in time. The real or personal property taxes are wealth taxes. The wealth transfer tax is based on the value of money or property that is passed on to another person. The estate, gift, and inheritance taxes are wealth transfer taxes.

14. [LO 1.1] *Income Taxes*

Over what ranges of taxable income in 2016 will the total income tax liability two persons with equal incomes who file as single individuals equal their income tax liability if they file jointly as a married couple?

**Solution:** Two persons with taxable income of $75,950 each will pay the same total tax as a married couple with taxable income of $151,900. Above $151,900 the married couple’s rate increases to 28% while each of the single persons does not reach that rate until taxable income is over $91,150.

15. [LO 1.2] *Types of Taxes*

Differentiate a progressive tax system from a proportional and a regressive system and give examples of each.

**Solution:** The income tax system in the United States is a progressive system; that is, as income increases, the tax rate increases and the person pays a greater percentage of income as a tax. A person who has $9,000 of taxable income will pay $900 in taxes (10%). A person who makes $18,000 will pay $2,236.25 ($927.50 + .15 ($18,000 - $9,275). $2,236.25/$18,000 = 12.42%. A regressive tax system imposes a lower tax rate as income increases; that is, a person pays a decreasing percentage of their income in taxes as income increases. The Social Security portion of the FICA tax is a regressive tax; as the taxpayer’s income on which the tax is based exceeds a maximum, the tax is no longer collected and the rate declines. A proportional tax would collect the same percentage of tax on the tax base, regardless of the size of the base. The sales tax is a proportional tax as the same percent tax is collected regardless of the amount spent.

16. [LO 1.2] *Income Tax Rates*

What basic tax rates apply to the ordinary income, dividend income, and interest income of an individual? What are they for a corporation?

**Solution:** Individuals have basic tax rates of 10%, 15%, 25%, 28%, 33%, 35%, and 39.6% that apply to their ordinary income and their interest income. The basic tax rates for their dividend income are 0%, 15%, and 20%. Corporations have no tax-favored incomes so they pay tax on all income at rates of 15%, 25%, 34%, and 35%, excluding surtaxes on certain portions of income that ultimately produce a flat tax of 35% on income above $18,333,333.

17. [LO 1.2] *Income Tax Rates*

What tax rates apply to an individual’s capital gains and to which tax brackets do each of this rates apply?

**Solution:** Individual’s short-term capital gains tax rates are the same as the tax rates on ordinary income. A single individual’s long-term capital gains rates are 0% on long-term capital gains (LTCG) from 0 to $37,650; 15% on LTCG from $37,651 to $415,050, and 20% on LTCG exceeding $415,050.

18. [LO 1.3] *Canons of Taxation*

Briefly explain Adam Smith’s four canons of taxation.

**Solution:** The basic idea of equity is that persons with similar incomes will face similar taxes. Thus, individuals each with $200,000 in taxable income will pay the same amount of tax. A tax meets the criterion of economy when the amount of revenue it raises is at an optimum level after the costs of administration and compliance are considered. The canon of certainty would dictate that a taxpayer know with reasonable accuracy the tax consequences of a transaction at the time the transaction takes place. The last canon of convenience states that a convenient tax is one that would be readily determined and paid with little effort.

19. [LO 1.3] *Equity Concepts*

Differentiate horizontal from vertical equity.

**Solution:** Horizontal equity would require persons with equal incomes pay equal amounts of taxes. Vertical equity would require persons with higher incomes to pay a higher percentage of their income than persons with lower incomes. This is the basis of the U.S. tax system.

20. [LO 1.4] *Taxable Persons*

Which three taxable persons pay all of the income taxes?

**Solution:** Only individuals, regular (or C) corporations, and fiduciaries (estates and trusts) pay income taxes.

21. [LO 1.4] *Gross Income*

Define gross income.

**Solution:** The term gross income is an all-inclusive term that includes income from all sources that are not specifically excluded.

22. [LO 1.4] *Basic Tax Model*

Briefly describe the basic elements of the tax model.

**Solution:** The basic elements of the tax model are gross income, less deductions, that equal taxable income or loss. To this it applies the applicable tax rate to determine the gross tax liability. From this tax credits and prepayments are deducted to determine the tax liability owed or the refund due.

23. [LO 1.4] *Capital Losses*

Differentiate the tax treatment of an individual’s capital losses from the tax treatment of corporate capital losses.

**Solution:** An individual may deduct up to $3,000 of capital losses in excess of capital gains annually; the excess may be carried forward to succeeding years. A corporation can only offset capital losses against capital gains; they are not deductible against other income. Instead the corporation first carries the losses back to the three previous years and then forward for 5 years.

24. [LO 1.4] *Basic Income Tax Rates*

What are the basic tax rates for an individual and a corporation?

**Solution:** Individuals have basic tax rates of 10%, 15%, 25%, 28%, 33%, 35%, and 39.6% that are applied to their ordinary income. A corporation’s basic tax rates rates are 15%, 25%, 34%, and 35%, excluding surtaxes.

25. [LO 1.4] *Fiduciaries*

What are two fiduciary entities and how are they created? Define grantor, trustee, and beneficiary for a trust.

**Solution:** Trusts and estates are two fiduciary entities; a trust is established by a grantor who appoints a trustee to manage the assets for the benefit of the trust’s beneficiaries. An estate is an entity that is created on the death of a person that provides management for the assets in the decedent’s estate until they can be distributed to the beneficiaries. A grantor is the person who creates the trust when assets are placed in the trust for the benefit of the beneficiaries. The trustee is the person selected by the grantor to oversee the assets and ensure the trust functions as specified by the grantor. The beneficiary of the trust is the person for whom the trust was established and who is to benefit from the income from the trust (an income beneficiary) or receive the assets when the trust is closed (the remainderman).

26. [LO 1.5] *Sole Proprietorships*

What are three characteristics of a sole proprietorship? Are these characteristics the same as or different from those of a partnership? What are three characteristics of a limited liability company that differ from those of a partnership?

**Solution:** Only one taxable person, who must be an individual, can own a sole proprietorship. The sole proprietor is personally liable for all debts of the business. The sole proprietor cannot be an employee of the business and must pay self-employment tax. The results of operations of the sole proprietorship are reported on the Schedule C and these are then included in the owner’s personal tax return.

A partnership must have more than one owner. A general partner is liable for partnership debts but limited partners are only liable for their investment in the partnership. Like sole proprietors, partners cannot be employees of the partnership and general partners are required to pay self-employment tax. Although partnerships do not pay taxes directly, they must file information tax returns. The income/loss from the partnership flows through to the partners and is reported on their own tax returns. Partners pay any taxes owing on the income items but loss is deductible only if a partner has sufficient basis. A partner’s basis begins with his or her investment in the partnership and is increased for the partner’s share of partnership liabilities.

Partnerships and limited liability companies differ in a number of ways. Owners of partnerships are partners while owners of limited liability companies are called members. There are no legal requirements to set up a partnership but a limited liability company must be established according to the laws of the state of domicile. Limited liability companies can elect to be taxed as corporations while partnerships do not have that option. In some states, a limited liability company may have only one owner but a partnership must have two or more owners. Only the managing members of a limited liability company may be subject to self-employment taxes.

27. [LO 1.5] *Corporations*

Compare a C corporation to an S corporation.

**Solution:** The principal difference between a C corporation and an S corporation is in the method of taxation. A corporation pays a tax directly on its income. Any net after-tax income that is distributed to its shareholders as dividends is subject to a second level of tax. Thus, these corporate earnings are said to be subject to double taxation. An S corporation’s income flows directly through to its shareholders (whether there is an actual distribution of this income in cash or not) undiminished by taxes at the corporate level. The income is then taxed once only at the shareholder level. The corporation can then make actual distributions of this previously-taxed income to the S corporation shareholders without any additional taxes due. There are a number of other differences in that the number and type of S corporation shareholders is limited; it can only have one class of stock outstanding, and its choice of tax year is restricted. None of these restrictions apply to a C corporation. Other items of comparison could be drawn from the table in the text comparing business entity attributes.

Crunch the Numbers

28. [LO 1.1] *Property Taxes*

Dane City's total assessed valuation for all of the property in its jurisdiction is $4,000,000,000. It needs $20,000,000 in revenue for the services it provides its citizens. Joe owns property that is assessed at $150,000. How much will he pay in property taxes?

**Solution:** He will pay $750. $20,000,000 / $4,000,000,000 = .005 or 5 mills per $1 of valuation.  $150,000 x .005 = $750 in tax

29. [LO 1.1] *FICA Tax*

If a taxpayer has $40,000 of employee salary in 2016, how much will be withheld for the Social Security and Medicare taxes?

**Solution:** $40,000 x 7.65% = $3,060

30. [LO 1.1] *FICA Taxes*

If a taxpayer has $140,000 of employee salary, how much will be withheld for the Social Security and Medicare taxes in 2016?

**Solution:** 9,377is withheld for FICA taxes in 2016.

|  |  |
| --- | --- |
| $118,500 x 6.2% = | $7,347 |
| $140,000 x 1.45% = | 2,030 |
| Total | $9,377 |

31. [LO 1.4] *Taxable Income*

Determine Amy's taxable income for 2016 if she has $40,000 of salary income, is single, and has $10,350 in total allowable deductions.

**Solution:** Taxable income = $29,650

|  |  |  |
| --- | --- | --- |
|  | $40,000 | Salary |
| minus | 10,350 | Deductions |
| equals | $29,650 | Taxable income |

32. [LO 1.4] *Taxable Income*

Marlee is a single parent with $25,450 in total allowable deductions and qualifies as head of household for 2016. Determine her taxable income if she has a salary of $71,000 and interest income of $1,500.

**Solution:** Taxable income = $47,050

|  |  |  |
| --- | --- | --- |
|  | $71,000 | Salary |
| plus | 1,500 | Interest income |
| minus | 25,450 | Deductions |
| equals | $47,050 | Taxable income |

33. [LO 1.4] *Taxable Income*

Determine a corporation's taxable income if it has $450,000 of gross receipts, $145,000 cost of goods sold, $276,000 of deductible business expenses, $20,000 of gain on the sale of machinery, and $500 of interest income from State of New York bonds.

**Solution:** Taxable income = $49,000

|  |  |  |
| --- | --- | --- |
|  | $450,000 | Gross receipts |
| minus | 145,000 | Cost of goods sold |
| equals | $305,000 | Gross income |
| plus | 20,000 | Gain on sale |
| minus | 276,000 | Expenses |
| equals | $49,000 | Taxable income |

The $500 interest on State of New York bonds is tax-exempt.

34. [LO 1.4] *Taxable Income*

The Warner Corporation has gross income of $560,000. It has business expenses of $325,000, a capital loss of $20,000, and $2,500 of interest income on temporary investments. What is the corporation's taxable income?

**Solution:** Taxable income = $237,500

|  |  |  |  |
| --- | --- | --- | --- |
|  | $560,000 | Gross income |  |
| plus | 2,500 | Interest income |  |
| minus | 325,000 | Expenses |  |
| equals | $237,500 | Taxable income |  |
|  |  |  |  |

The $20,000 capital loss is not deductible currently.

35. [LO 1.4] *Taxable Income*

Determine George and Mary's taxable income and tax liability for 2016 if George has $65,000 and Mary has $45,000 of salary income, they have $36,200 of total allowable deductions, and they file a joint tax return.

**Solution:** Taxable income = $73,800

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| --- | --- | --- |
|  | George's salary | $65,000 |
| plus | Mary's salary | 45,000 |
| equals | Gross income | $110,000 |
| minus | Deductions | 36,200 |
| equals | Taxable income | $73,800 |

36. [LO 1.4] *Determining Tax Liability*

Refer to the information in problem 31. Determine Amy's income tax liability for 2016.

**Solution:** Taxable income = $29,650; income tax = $4,023.75.

Income Tax: ($9,275 x 10%) + ($20,375 x 15%) = $3,983.75.

37. [LO 1.4] *Determining Tax Liability*

Refer to the information in problem 32. Determine Marlee's income tax liability for 2016.

**Solution:** Taxable income = $47,050; income tax = 6,395.

Income Tax: [($47,050 - $13,250) x 15%] + $1,325 = $6,395

38. [LO 1.4] *Determining Tax Liability*

Refer to the information in problem 33. Determine the corporation's income tax liability.

**Solution:** Taxable income = $49,000; income tax = $7,350.

Income Tax: $49,000 x 15% = $7,350.

39. [LO 1.4] *Determining Tax Liability*

Refer to the information in problem 34. Determine Warner Corporation's income tax liability.

**Solution:**  Taxable income = $237,500; Income tax = $75,875

[($237,500 - $100,000) x 39%] + $22,250 = $75,875

(The $20,000 capital loss is not deductible currently.)

40. [LO 1.4] *Marriage Penalty*

Sally and Jim are married and have taxable income in 2016 of $160,000. If they could file their income tax as single individuals, each of them would have taxable income of $80,000. Do they have a marriage penalty when they file their joint return? If so, what is the amount of the penalty?

**Solution:** They have a marriage penalty of $243 ($31,785.50 - $31,542.50).

MFJ: [($160,000 - $151,900) x 28%] + $29,517.50 = $31,785.50

Single: [($80,000 - $37,650) x 25%] + $5,183.75 = $15,771.25 x 2 = $31,542.50

41. [LO 1.4] *Joint vs. Single Filing*

Conrad and Anita (a college student with no income) plan to marry on December 21, 2016. Filing jointly, they expect to have $180,000 of taxable income for the year. If they wait until January of 2017 to marry, Conrad will file as a single person and report the $180,000 of taxable income on his separate return.

a. Will it be to their advantage to marry before the end of 2016 or should they wait until 2017?

b. How much in tax will they save or have to pay extra if they marry in 2016?

c. How would your answers change if Conrad and Anita each expect $90,000 of taxable income in 2016?

**Solution:** a.It will be to their advantage to marry in 2016.

b.By marrying before the end of 2016 and filing jointly, they save $6,051.25 ($43,436.75 - $37,385.50) in taxes.

MFJ: [($180,000 - $151,900) x 28%] + $29,517.50 = $37,385.50

Single: [($180,000 - $91,150) x 28%] + $18,558.75 = $43,436.75

c. If they each have $90,000 of income, they would each pay $18,271.25 in taxes and they would then have a marriage penalty of $842.50 ($37,385 - $36,542.50). In this case, they would be slightly better off by postponing their wedding until 2016.

Tax on $90,000 (Single): [($90,000 - $37,650) x 25%] + $5,183.75 = $18,271.25

$18,271.25 x 2 = $36,542.50

42. [LO 1.4] *Income Tax Liability*

Carrie and Stephen have gross salary and wages of $76,000 in 2016 and file a joint return. They have $27,150 of total allowable deductions and a $240 child care credit. Determine their taxable income and their tax liability.

**Solution:** Taxable income = $48,850 and the net tax liability = $6,160.

$76,000 salary and wages - $27,150 allowable deductions = $48,850 taxable income.

Income tax liability is: $1,855 + .15 x [$48,850 - $18,550] = $6,400

$6,400 - $240 credit = $6,160

43. [LO 1.4] *Tax Liability*

An estate has $20,000 of taxable income in 2016. What amount of tax will the estate pay if it fails to distribute the income to the beneficiaries?

**Solution:** The estate will pay $6,215.60.

|  |  |
| --- | --- |
| $2,550 x 15% = | $382.50 |
| $3,400 x 25% = | 850.00 |
| $3,100 x 28% = | 868.00 |
| $3,350 x 33% = | 1,105.50 |
| $7,600 x 39.6 = | 3,009.60 |
| Total tax | $6,215.60 |

44. [LO 1.4] *Tax Rates*

Perform the calculations to prove that the 5 percent surtax on corporate income between $100,000 and $335,000 equals the benefit that the corporation enjoys on income of no more than $100,000.

**Solution**: .05 x ($335,000 - $100,000) = $11,750

$50,000 (.34 - .15) = $9,500

($75,000 - $50,000)(.34 - .25) = $2,250.

$9,500 + $2,250 = $11,750

45. [LO 1.4] *Tax Rates*

Perform the calculation to prove that the 3 percent surtax on corporate income between $15,000,000 and $18,333,333 equals the benefit of the 34 percent tax rate on income of no more than $10,000,000.

**Solution: .**03 x ($18,333,333 - $15,000,000) = $100,000

(.35 - .34)($10,000,000) = $100,000

46. [LO 1.5] *Tax Liability*

John has taxable income of $30,000. William has taxable income of $60,000. Determine their 2016 income taxes if they are both single individuals. Compare their incomes and their income taxes. What does this illustrate?

**Solution:** William’s income is twice John’s, but his taxes are 2.67 ($10,771.25/$4,036.25) times John’s. This illustrates the progressive nature of the tax system as well as vertical equity.

[($30,000 - $9,275) x 15%] + $927.50 = $4,036.25

[($60,000 - $37,650) x 25%] + $5,183.75 = $10,771.25

47. [LO 1.5] *Net Operating Loss*

Lilikoi Corporation began business in 2014. Lilikoi earned taxable income of $40,000 in 2014 and $120,000 in 2015. For 2016, Lilikoi Corporation has a net operating loss of $50,000 and decides to carry the loss back, filing a refund claim. Compute the amount of corporate income tax that Lilikoi paid for 2014 and 2015 and then determine the amount of tax that will be refunded from carrying back the 2016 NOL.

**Solution:** Lilikoi paid $6,000 tax for 2014 and $30,050 tax for 2015. Lilikoi will have a refund of $9,900 from carrying back $40,000 of the 2016 loss to 2014 and $10,000 of the loss to 2015. (Note that Lilikoi cannot carry the loss back to only 2015 without first carrying it back to 2014.)

Tax paid for 2014 on $40,000 was $40,000 x 15% = $6,000

Tax paid for 2015 on $120,000 was [($20,000 x 39%) + $22,250] = $30,050.

The $10,000 loss that is carried back to 2015 reduces the taxable income for that year from $120,000 to $110,000 saving tax at the 39% rate that applies to income between $110,000 and $120,000.

Tax refund from 2016 loss is ($40,000 x 15%) + ($10,000 x 39%) = $9,900

48. [LO 1.5] *Determining Tax Liability*

Hunter Corporation has $250,000 in gross income, $125,000 in deductible business expenses, and a $12,000 business tax credit. Determine the corporation's net tax liability.

**Solution:** The net tax liability is $20,000.

$250,000 gross income - $125,000 expenses = $125,000 taxable income.

The income tax liability is: [($25,000 x 39%) + $22,250] = $32,000 gross tax

$32,000 - $12,000 tax credit = $20,000 net tax

49. [LO 1.5] *Determining Tax Liability*

Carolyn has a 50 percent interest in a general partnership that has a $14,000 loss for the year. She materially participates in the partnership. Her basis in the partnership is $10,000. She also has salary from other employment of $46,000. If she is single with $10,350 in allowable deductions, what is her taxable income and her tax liability in 2016?

**Solution:** Taxable income = $28,650 and the tax liability is $3,833.75

|  |  |  |
| --- | --- | --- |
|  | $46,000 | Salary |
| minus | 7,000 | Partnership loss (50% x $14,000) |
| equals | $39,000 | Gross income |
| minus | 10,350 | Deduction |
| equals | $28,650 | Taxable income |

Tax: [($28,650 - $9,275) x 15%] + $927.50 = $3,833.75

50. [LO 1.4 & 1.5] *Tax Liability Comparisons*

June and John decide to form a business. They each plan to contribute $20,000 in exchange for a 50 percent interest in the business. They will then take out a bank loan for $30,000 to cover the balance of their working capital needs. They expect that the business will make a profit of $64,000 in the first year and that it will not make any cash distributions that year. Excluding the business income, June, who files as head of household, has $475,000 of other ordinary taxable income. John is married and files a joint return; he and his wife have $130,000 of other ordinary taxable income. They want to know how much tax the business will pay and how much additional tax they will personally pay in 2016 if they form the business as a partnership, S corporation, or C corporation. Consider only income taxes.

**Solution:** Partnership: Pays no tax. June and John are each taxed on the $32,000 passed through to them at their marginal tax rates.

To determine their marginal tax rates, find the tax bracket in which their other taxable income falls. (Note that the “other ordinary taxable income” is provided; either the standard or their itemized deductions and the personal exemptions have already been subtracted.) June’s $475,000 of other ordinary taxable income puts her in the 39.6% marginal tax bracket because she is a head of household with taxable income over $441,000. John’s $32,000 straddles the 25% and 28% marginal tax brackets because his $130,000 of taxable income plus the additional $32,000 exceeds $151,900 – the 25% tax bracket. Thus, $21,900 is taxed at 25% and $10,100 ($162,000 - $151,900) is taxed at 28% for a married taxpayer filing a joint return.

June’s tax = $32,000 x 39.6% = $12,672.

John’s tax = [$21,900 x 25% = $5,475] + [10,100 x 28% = $2,828] = $8,303.

Together they pay a total of $20,975 in taxes.

S Corporation: Pays no tax. June and John are each taxed on the $32,000 passed through to them at their marginal tax rates as shown above for the partnership and together they pay $20,975 in taxes.

C Corporation: The corporation pays a tax of $11,000

[$7,500 + ($64,000 - $50,000) x 25%] = $11,000

Neither June nor John pay any taxes as they received no distributions from the corporation.

Note the problem specified only income taxes; employment taxes are not included in the solution to this problem.

51. [LO 1.4 & 1.5] *Tax Liability Comparisons*

Assume the same facts as problem 50, except that the business expects to make a cash distribution of $28,000 each to June and John the first year. Determine how much tax the business will pay and how much additional tax they will personally pay if they form the business as a partnership, S corporation, or C corporation. Consider only income taxes.

**Solution:** Partnership: The answer does not change because June and John are taxed fully on their shares of income whether they are distributed or not and the partnership pays no tax. Thus, June’s tax is still $12,672 and John’s tax is $8,303 for a total of $20,975 in taxes. They pay no additional tax on the $28,000 distribution.

S Corporation: The answer does not change because June and John are taxed fully on their shares of income whether they are distributed or not and the S corporation pays no tax. Thus, June’s tax is still $12,672 and John’s tax is $8,303 for a total of $20,975 in taxes. They pay no additional tax on the $28,000 distribution.

C Corporation: The corporation pays the same tax of $11,000 [($50,000 x 15%) + ($14,000 x 25%)]. June and John, however, will now have to recognize $28,000 of dividend income; John will be taxed at the 15% dividend rate but June will be taxed at 20% (the dividend rate for taxpayers in the 39.6% marginal tax bracket).

June’s tax = $28,000 x 20% = $5,600.

John’s tax = $28,000 x 15% = $4,200.

The total tax for the corporation, June, and John is $20,800 ($11,000 + $5,600 + $4,200).

Note the problem specified only income taxes; Medicare surtaxes and employment taxes are not included in the solution to this problem.

52. [LO 1.4 & 1.5] *Tax Liability Comparisons*

Assume the same facts as problem 50, except that John and June expect the business will have a $44,000 loss in the first year (instead of a $64,000 profit) and will not make any cash distributions. Determine the income tax savings in the current year for the business and for them personally if they form the business as a partnership, S corporation, or C corporation. (They both materially participate in the business and their marginal tax bracket will not change because of the business loss.)

**Solution:** Partnership: The partnership does not benefit from the loss. June and John are each allocated $22,000 of loss and can deduct the loss against their other income because they have sufficient basis in the partnership [$15,000 invested + ($30,000 bank loan x 50%) = $30,000 basis before loss - $22,000 loss = $8,000 ending basis]. June’s and John’s incomes are high enough for them to remain fully in their respective marginal tax rates of 39.6% and 25%. June benefits from a reduction in taxes of $8,712 ($22,000 x 39.6%) and John saves $5,500 ($22,000 x 25%) in taxes at his marginal tax rate. The total tax savings for both are $14,212 ($8,712 + $5,500).

S Corporation: The S corporation does not benefit from the loss. June and John are each allocated $22,000 of the loss but they can only deduct $15,000 of this loss against their other income because their deduction is limited to their basis in their S corporation stock (which does not include any of the corporation’s liabilities). Thus, June benefits from a reduction in taxes of $5,940 ($15,000 x 39.6%) at her marginal tax rate. John reduces his taxes by $3,750 ($15,000 x 25%) at his marginal tax rate. They will each carry their excess $7,000 loss forward; these losses can be deducted in a future year when they have sufficient basis. The total tax savings for the current year is $9,690 ($5,940 + $3,750).

C Corporation: Neither June nor John have any current tax savings from the $44,000 loss. As a new corporation, it can only carry its loss forward to offset income (and realize tax savings) in a future year. Losses of a C corporation do not pass through to shareholders.

Note the problem specified only income taxes; Medicare surtaxes and employment taxes were not included in the solution.

53. [LO 1.4 & 1.5 *Choice of Business Entity*]

Clara and Charles decide to form a business. They each plan to contribute $15,000 in exchange for a 50 percent interest. The business will borrow $20,000 to cover the balance of its working capital needs. In their business plan, Clara and Charles show that the business will have a loss of $54,000 in its first year. In the second year, however, the business will have a profit of $60,000 and they will each be able to withdraw $5,000 from the business. Clara is in the 28 percent marginal tax bracket and Charles is in the 25 percent marginal tax bracket.

a. Determine the taxes paid by the business (if any) in the first and second year if they organize the business as (1) a partnership, (2) an S corporation and (3) a C corporation.

b. Determine Clara's and Charles's income tax savings in the first year and their bases in the business at year-end if they organize the business as (1) a partnership, (2) an S corporation, and (3) a C corporation.

c. Determine the income tax Clara and Charles will pay in the second year from business operations and their bases in the business at year-end if they organize the business as (1) a partnership, (2) an S corporation, and (3) a C corporation.

**Solution:** a. (1) The partnership does not pay any tax in years 1 or 2.

(2)The S corporation does not pay any tax in years 1 or 2.

(3) The C corporation pays no tax in year 1 but its year-1 loss can be carried forward to year 2 to offset $54,000 of its year-2 $60,000 income; it will pay a tax of $900 ($6,000 x 15%) on this remaining $6,000 income in year 2.

b**.** (1) Tax savings for first year of partnership: Clara and Charles are each allocated $27,000 of loss and each can deduct $25,000 of the loss (the extent of basis [$15,000 investment + (50% x $20,000 loan)]. Clara’s tax savings will be $7,000 ($25,000 deductible loss x 28%) and Charles’s tax savings will be $6,250 ($25,000 deductible loss x 25%). The excess loss is carried forward to the next year.

Partner’s basis computations:

|  |  |
| --- | --- |
| $15,000 | Partner’s original investment |
| +10,000 | Partner’s share of liabilities ($20,000 loan x 50%) |
| $25,000 | Basis before deducting loss |
| - 25,000 | Deductible loss ($54,000 loss x 50% = $27,000 but limited to basis and $2,000 excess loss carried forward) |
| 0 | Basis at end of first year |

(2) Tax savings for first year of S corporation: Clara and Charles are each allocated $27,000 of loss and can deduct loss to the extent of the basis in the S corporation stock. Clara’s tax savings will be $4,200 ($15,000 deductible loss x 28%) and Charles’s savings will be $3,750 ($15,000 deductible loss x 25%).

S corporation shareholder’s stock basis computations:

|  |  |
| --- | --- |
| $15,000 | Shareholder’s original investment |
| -15,000 | Deductible loss ($54,000 loss x 50% = $27,000 but limited to basis and $12,000 excess loss carried forward) |
| 0 | Basis at end of first year |

Note that an S corporation shareholder does not increase stock basis for any corporate liabilities.

(3) First year of C corporation: No effect on Clara or Charles. Their basis in stock remains $15,000 each.

c. (1) Income tax for second year of partnership: Clara pays $7,840 income tax [($30,000 profit - $2,000 loss carried forward) x 28%] and Charles pays $7,000 income tax [($30,000 profit - $2,000 loss carried forward) x 25%]. The cash distribution is not taxed but is a reduction of basis.

Partner’s basis computations:

|  |  |
| --- | --- |
| 0 | Basis at end of first year |
| $30,000 | Year 2 profit ($60,000 x 50%) |
| - 5,000 | Cash distribution |
| $25,000 | Subtotal |
| - 2,000 | Deduct loss carried forward from previous year |
| $23,000 | Basis at end of second year |

(2) Income tax for second year of S corporation: Clara pays $5,040 in tax [($30,000 profit - $12,000 loss carried forward) x 28%] and Charles pays $4,500 tax [($30,000 profit - $12,000 loss carried forward) x 25%]. The cash distribution is not taxed but is a reduction of basis.

S corporation shareholder’s stock basis computations:

|  |  |
| --- | --- |
| 0 | Basis at end of first year |
| $30,000 | Year 2 profit ($60,000 x 50%) |
| - 5,000 | Cash distribution |
| $25,000 | Subtotal |
| - 12,000 | Deduct loss carried forward from previous year |
| $13,000 | Basis at end of second year |

(3) Income tax for second year of C corporation: Clara and Charles each pay $750 tax on their dividend income ($5,000 dividend income x 15% dividend rate = $750 tax). Their basis in the corporate stock remains $15,000.

54. [LO 1.5] *Partnership Basis*

Carl is a 30 percent partner in the CCF Partnership. At the beginning of the year, his basis in the partnership is $4,000. The partnership reports $7,000 of ordinary income and distributes $3,000 to the partners. What is Carl's basis at the end of the year?

**Solution:** His basis is $5,200.

$4,000 beginning basis + (30% x $7,000 partnership income) – (30% x $3,000 distribution) = $4,000 + $2,100 - $900 = $5,200

Develop Planning Skills

55. [LO 1.4] *Single vs. Married Filing Status*

John and Martha are planning to be married. Both are professionals each with taxable incomes of $89,700 annually. They are deciding on a wedding date. They have two dates to choose from: December 14, 2016, or January 11, 2017. If they marry on December 14, 2016, they will have to choose between married filing separately and married filing jointly. Is there an advantage to either method of filing? If they postpone their wedding until the January date and file as single persons, will they reduce their tax bill for 2016?

**Solution:**

Married Filing Separately: [($89,700 - $75,950) x 28%] + $14,758.75 = $18,608.75

$18,608.75 x 2 = $37,217.50

Married Filing Jointly: [($179,400 - $151,900) x 28%] + $29,517.50 = $37,217.50

Single: [($89,700 - $37,650) x 25%] + $5,183.75 = $18,196.25 x 2 = $36,392.50

It makes no difference if they marry this year and file either as married filing jointly or separately. If they postpone the wedding until next year, they will save $825 ($37,217.50 - $36,392.50) in taxes filing as single individuals this year.

56. [LO 1.4 & 1.5] *Total Tax Comparison*

Jeremy is setting up a service business. He can either operate the business as a sole proprietorship or he can incorporate as a regular C corporation. He expects that the business will have gross income of $80,000 in the first year with expenses of $12,000 excluding the following. He plans to take $30,000 from the business for living expenses as a salary. Compare his tax costs for 2016 considering only income taxes if he is single, has no other income, and total allowable deductions of $10,350. Which option do you recommend based solely on these tax costs?

**Solution:** Sole Proprietorship: Jeremy will be taxed on the entire net income from the sole proprietorship of $68,000 ($80,000 – $12,000) regardless of the “salary.” $68,000 - $10,350 allowable deduction = $57,650 taxable income; [25% x ($57,650 - $37,650)] + $5,183.75 = $10,183.75 income tax.

Corporation: $80,000 - $12,000 - $30,000 = $38,000 taxable income; $38,000 x 15% = $5,700 corporate income tax. Income tax on Jeremy’s $30,000 salary: Jeremy’s taxable income = $30,000 - $10,350 allowable deduction = $19,650. Tax on $19,650 = $927.50 + [($19,650 - $9,275) x 15%] = $2,438.75. Total taxes as a corporation = $5,700 + $2,438.75 = $8,183.75

Based solely on income taxes, Jeremy should incorporate because his taxes will be $2,000 ($10,183.75 - $8,183.75) less than operating as a sole proprietorship.

57. [LO 1.4 & 1.5] *Form of Business Operations: C Corporation vs. S Corporation*

Carol has recently incorporated her sole proprietorship and is considering making an S election. The corporation has $200,000 of gross revenue and expenses of $75,000 before Carol's salary. She plans to take a gross salary of $60,000 from the business and this will be her only income for the year. Compare the total tax burden for Carol and the corporation with and without the S election. Consider both income and employment taxes. Carol is single and has total allowable deductions of $10,350. She plans to reinvest all of the corporation's net income after taxes into the business. Based on tax burden alone for 2016, should Carol make the S election?

**Solution:** Regular C Corporation: FICA tax on Carol’s $60,000 salary is $4,590 ($60,000 x 7.65%). FUTA = $420 ($7,000 x 6%)

Corporate taxable income = $200,000 - $75,000 - $60,000 salary - $4,590 FICA -$420 FUTA= $59,990.

Income tax on $59,990 = [($59,990 - $50,000) x 25%] + $7,500 = $9,997.50.

Total corporate taxes = $4,590 + $420 + $9,997.50 = $15,007.50.

Carol’s taxes: Carol also pays $4,590 ($60,000 x 7.65%) in FICA taxes on her salary but she cannot deduct these taxes.

Carol’s taxable income = $60,000 - $10,350 allowable deduction = $49,650.

Income tax: ($49,650 - $37,650) x 25%] + $5,183.75 = $8,183.75.

Carol’s total taxes = $8,183.75 + $4,590 = $12,773.75.

Total taxes = $15,007.50 + $12,773.75 = $27,781.25

S Corporation: FICA tax on Carol’s $60,000 salary is $4,590 ($60,000 x 7.65%). FUTA = $420 ($7,000 x 6%).

The net S corporation income of $59,990 (same as the regular corporation) is passed through to Carol for taxation along with her salary income.

Carol’s taxable income = $60,000 salary + $59,990 corporation income - $10,350 allowable deduction = $109,640.

Tax on Carol’s $109,640 taxable income = [($109,640 - $91,150) x 28%] + $18,558.75 = $23,735.95

Carol’s total tax = $23,735.95 + $4,590 = $28,325.95

Total taxes = $28,325.95 + $4,590 +$420 = $33,335.95

Based on 2016 total taxes only, Carol should not make the S corporation election because the total taxes will be $5,554.70 ($33,335.95 - $27,781.25) less operating as a regular C corporation.

Think Outside the Text

*These questions require answers that are beyond the material that is covered in this chapter*.

58. [LO 1.2] *Tax Rates*

What is the maximum income tax rate that applies to the employee salary, the employment tax rate(s) on the salary, and the capital gain rate(s) on the long-term capital gains, for these four single individual taxpayers in 2016?

a. Employee Salary = $27,000; Capital Gain = $9,000

b. Employee Salary = $132,000; Capital Gain = $24,000

c. Employee Salary = $176,000; Capital Gain = $139,000

d. Employee Salary = $285,000; Capital Gain = $248,000

**Solution:**

|  |  |  |
| --- | --- | --- |
| Income Tax Rate on salary | Employment Tax Rate | Capital Gains Tax Rate |
| 15% | 7.65% | 0% |
| 28% | 6.2% up to $118,500 and 1.45% on $132,000 | 15% |
| 28% | 6.2% up to $118,500 and 1.45% on $176,000 salary | 15% on $139,000\* |
| 33% | 6.2% up to $118,500; 1.45% on $285,000\* | 15% on the first $128,200 (up to AGI of $415,050) and 20% on remaining $118,050\* |

\*excluding Medicare surtaxes

59. [LO 1.2] *Tax Fairness*

Do you believe that a progressive, proportional, or regressive tax is the most fair? Explain your answer.

**Solution:** No answer is suggested here as the purpose of this question is to require the student to select an alternative and construct an argument to support that position.

60. [LO 1.2] *Property Tax*

Is a property tax generally a progressive, proportional, or a regressive tax? Explain.

**Solution:** As an ad valorem tax, a property tax is proportional. If you use another tax base except the value of the property, the tax may be progressive for some group of citizens and regressive for others. For example, senior citizens generally have lower incomes than working persons. They may have lived in their home a long time and paid off the mortgage. If it had significantly appreciated (with property tax increases), based on a percentage of their income, the property tax would be regressive. Alternatively, a lower income person may spend only 25 percent of his or her income on housing because of other necessities. A high-income person may be able to spend 40 percent of his or her income on housing. The latter’s property taxes will be much higher as a percent of income than the former. In this situation, the tax is progressive when based on income. Thus, for a wealth tax such as a property tax, wealth is the only base on which it is practical to evaluate it. It is generally proportional, although a certain base amount may be excluded from the tax (for example, a $25,000 homestead exemption for persons who own their own home would make it somewhat progressive).

61. [LO 1.2] *Flat Tax*

If the Congress were to enact a flat tax, do you believe that there should be any exclusions or deductions from income before the single tax rate is applied? Explain

**Solution:** Most students will agree that there will have to be some basic exclusions or deductions to enact a viable flat tax. Comparisons can be drawn, however, to the FICA taxes, which have been flat over incomes up to the Social Security base amount ($118,500 for 2016), but only the Medicare portion applies above this base amount; an income flat tax, on the contrary, could be structured to exempt a certain base amount from tax with the tax applying on all income above that minimum excluded base. Discussions of a flat tax can often lead to discussions of higher minimum wages, guaranteed annual incomes, and negative income taxes in order to keep the flat tax relatively simple.

62. [LO 1.3] *Tax Evaluation Using the Canons of Taxation*

Evaluate the sales tax and the income tax using Adam Smith's four canons of taxation.

**Solution:** The four canons of taxation are equity, economy, certainty, and convenience. In general, with the exception of an evaluation based on equity, many persons believe the sales tax that most states levy is superior to the income tax. The costs to collect and comply with the sales tax are relatively small compared to the amounts collected (although internet sales are a significant problem now); most persons know that when they purchase certain items they are required to pay sales taxes; *and* they pay at the point of sale without having to file end-of-year returns. Sales taxes are considered regressive, however, and therefore not considered equitable. As a percentage of income, lower income persons pay more sales tax than higher income persons do because they are obliged to spend more of their income. As an absolute amount, however, most wealthy persons spend more overall than poor persons, and, as a result pay more sales taxes (vertical equity). Two persons with equal incomes can pay different amounts of sales taxes, however, if one party chooses to save money while the other spends; this would violate horizontal equity. The income tax has far higher costs of collections and administration but its tax rates are progressive and it contains provisions that exempt low-income taxpayers from paying any taxes. Thus, it is generally seen as more equitable than a sales tax. It fails, however, on convenience and certainty because of the annual filing requirements and constant changing of the laws.

63. [LO 1.4] *Marriage Penalty*

Evaluate allowing married individuals with dual incomes to choose to file a joint tax return or to file as two single individuals as a remedy for the marriage penalty.

**Solution:** An evaluation of this proposal at this point usually focuses on the cost to the taxpayer in time and money to determine the tax under the dual system. Other problems arise in the dividing up of dependency exemptions, itemized deductions, and tax credits. If taxpayers are allowed to choose the method that allows them to pay the lower tax, there will also be a decline in total tax revenues. To some degree taxpayers have a choice now – but the difference in tax rates from single to married filing separately and the requirement that both must either choose the standard deduction or itemize deductions limits their “gaming the system.”

64. [LO 1.4] *After-Tax Interest Rate*

What is the after-tax interest rate that a corporation in the 38 percent tax bracket pays on a loan of $100,000 at 7 percent interest?

**Solution:** The interest rate = 4.34%.

The $7,000 interest ($100,000 x 7%) would reduce taxes by $2,660 ($7,000 x 38%). Thus the net interest paid is $4,340 ($7,000 - $2,660). The after-tax interest rate is 4.34% ($4,340/$100,000). Alternatively, this can be calculated directly as 7% (1 - .38) = 4.34%

65. [LO 1.4] *Deductions vs. Credits*

Compare the benefits of a $4,000 deduction and a $4,000 tax credit for two single taxpayers, one with taxable income of $50,000 and the other with taxable income of $200,000.

**Solution:** Taxable income = $50,000; marginal tax bracket = 25%. Tax savings from the $4,000 deduction = $1,000 (25% x $4,000).

Taxable income = $200,000; marginal tax bracket = 33%. Tax savings from the $4,000 deduction = $1,320 (33% x $4,000).

A $4,000 tax credit reduces each taxpayer’s tax by $4,000. The tax savings from a tax credit is independent of the taxpayer’s marginal tax rate.

Search the Internet

*For the following four problems, consult the IRS Web site (*[*www.irs.gov*](http://www.irs.gov)*)*.

*Check solutions*

66. [LO 1.1] *Statistical Information*

Briefly describe the statistical information available when you search the IRS website for statistics.

**Solution:** On the IRS.gov home page search for tax statistics or click on Tax Stats, Facts and Figures at the bottom of the page to access *www.irs.gov/uac/Tax-Stats*-2. There are links to a wide range of tables, articles, and data that describe and measure elements of the U.S. tax system. These include statistics and other information about returns filed with the IRS. Headings under this section include: Business Tax Statistics; Individual Tax Statistics; IRS Operations & Budget; Statistics of Income (SOI); Charitable & Exempt Org. Statistics; Products, Publications, & Papers; Statistics by Form; Other IRS Data and Research, Additional Information; and What’s New.

67. [LO 1.1] *Asking Questions or Making Comments to the IRS*

How do you make a comment or ask a question about the tax statistics provided by the IRS?

**Solution:** On www.irs.gov/uac/TaxStats-2page under “Additional Information,” there is a direct link under Questions on Tax Statistics? that accesses a page on which you can send an email to the IRS with general questions or comments regarding these statistics. Links are also provided for accessing other information**.**

68. [LO 1.1] *Statistics of Income*

What subheadings appear under the “Statistics of Income”?

**Solution:** About SOI, Dissemination Policy, SOI Products and Services, SOI Data Releases, Statistical Methodology, and All Topics

69. [LO 1.1] *Information about the IRS*

Where would you find information about the IRS?

**Solution:** At the bottom of the IRS home page, click on "About Us." A list of topics pop up including “The Commissioner’s Section,” “The Agency, Its Mission and Statutory Authority” and “Brief History of IRS” along with other links including Today’s IRS Organization, Equity, Diversity and Inclusion of IRS, Strategic Plan and Other References, Open Government Initiative, Contracting Opportunities, and Contact Us.

70. [LO 1.1] *Tax Freedom Day*

Go to *www.taxfoundation.org* (the Web site for the Tax Foundation).

a. What is Tax Freedom Day?

b. When were Tax Freedom Days in 2014 and 2015?

**Solution:** (a) Tax Freedom Day is the specific day in the year that, on average, Americans stop working to pay the government; that is, income to that date all goes to pay taxes; income for the rest of the year belongs to the taxpayer to do with as he or she chooses. (b) Tax Freedom Day was April 21 in 2014 and April 24 in 2015. Thus, 111 days in 2014 and 114 days in 2015 were worked to pay taxes. This date varies greatly when done on a state-by-state basis.

Identify the Issues

*Identify the issues or problems suggested by the following situations. State each issue as a question*.

71. [LO 1.4] *Filing Status*

John and Mary filed for divorce in November of the current year. The divorce will not become final until May of the following year.

**Solution:** What is John and Mary’s filing status for the current year?

72. [LO 1.5] *S Corporation Requirements*

DEE is an S corporation with 100 shareholders. John, one of these shareholders, gives half of his shares of stock to his new wife as a wedding gift.

**Solution:** Is the S corporate restriction of no more than 100 shareholders violated when John gives half of his shares to his wife? Will its S election terminate?

73. [LO 1.5] *Disguised Dividend*

Clifford owns 75 percent of AFK, a C corporation. He spends little time in the business, but takes a salary of $750,000.

**Solution:** Will all of Clifford’s salary be deductible by the corporation as salary or is it possible that a portion of it will be declared a disguised dividend?