1. a. What is meant by the term excess burden?

   The burden on the taxpayer beyond the dollars paid in the tax.

b. Suppose that widgets and ratchets each cost $10 and a consumer has a budget of $100. Let us suppose that the government puts a 150% tax on ratchets so they now cost $25. Given the indifference curves and relevant budget lines, please show the excess burden. See answer page 303-307.

c. How many dollars is the excess burden? How did you arrive at this number?

   Person buys 50 ratchets
   \[ \text{Cost} = 50 \times \text{taxed price} = 75 \]
   
   But like paying $100. So excess burden $25

2. Suppose the citizens of Delaware, Ohio have a budget line for money that could be spent either on their own private consumption or government provided goods. The budget line and the community indifference curve are given below.

   a. Suppose the State of Ohio gives the City of Delaware a dollar for dollar matching grant for government provided goods. Draw the new budget line and label it CD.

   b. Draw a new indifference curve that is tangent to CD and consistent with $E_1$. Label it $E_2$. Many possible curves.

   c. How much of the government good is now consumed?

   d. Cite an example of an actual activity for which one level of government provides a grant to another. Medicaid, support for higher ed, Mass transit.

   e. Cite two reasons why a grant is used to transfer funds between different levels of government.

      - Some localities have needs, at not resource.
      - Local grant revenue base has not grown as quickly as federal.
      - Positive externalities. An improved road in Ohio will help a Michigan resident driving to Kentucky at or Florida.
3. On the next page I have placed a column from the *Columbus Dispatch* of Monday May 8, 2006. Do you agree with the author? Please integrate what we have learned in the class in developing your answer. Write legibly here, as I have no intention of spending extra time deciphering hard-to-read handwriting.

Obviously the answers will vary.

There are several inaccurate statements in what the author said. I have noted them on the next page.
SHOULD THE ESTATE TAX BE ENDED BY CONGRESS?

Yes: This legacy of wartime need has become an impediment to good business

Monday, May 8, 2006
JAMES L. MARTIN

In the interest of fairness, we must cut beloved Founding Father and statesman Benjamin Franklin some serious slack; it was he who proclaimed more than 200 years ago that "nothing can be said to be certain, except death and taxes."

But he was wrong. The fullness of time has revealed a third certainty for Americans: taxes after death on money they already had paid taxes on when they were living.

The federal estate tax has been enacted four times in our nation's history, each time to help finance war. But the first three times, it was blessedly rescinded. Unfortunately, this miserable tax remained in place after its fourth enactment - to help fund World War I. From 1916 to 2006 - 90 years - Uncle Sam has reached into the coffins of American taxpayers to extract money ostensibly to pay for a war long, long over.

And the terrible burden of this regressive levy on America's farmers, small businesses and families continues. Finally, relief may be on the way. Senate Majority Leader Bill Frist, R-Tenn., plans to push legislation to bury this Dracula-like tax this month.

Mind you, the House has moved several times, most recently in April 2005, to repeal this onerous tax. Then it achieved a bipartisan consensus of 272-162, with 42 Democrats joining their GOP counterparts. Eight of those Democrats were members of the Black Congressional Caucus, who concluded the tax severely affects first-generation black entrepreneurs.

A prime example occurred recently with the death of John Sengstacke, the publisher of the legendary Chicago Defender, one of the nation's oldest black newspapers. Deprived of a chunk of his estate, his relatives are struggling to keep the paper in business.

Now, with Frist's promise, the Senate seems poised to follow in kind, despite the fact that a supermajority of 60 votes will be required. The proverbial light may indeed be at the end of the tunnel.

Why does our government see fit to re-tax the accumulated savings of productive, entrepreneurial people? In a nation beset with debt, with a citizenry less and less likely to save for tomorrow's uncertainities, let's hope the repeal of the estate tax will provide the incentives for Americans to take control of their economic futures.

As grieving families try to cope with the death of a loved one, there's no earthly reason Uncle Sam should seize upward of 55 percent of the deceased's assets, especially when they already have been taxed at least once!

The permanent repeal of the tax offers fairness to American families by removing an illogical motivation - one that makes it cheaper for individuals to sell their businesses prior to death and pay individual capital gains than to pass it along to heirs.

I've been hammering away at this simple bit of logic for the past 15 years, trying to honor Ronald Reagan, the first president to call the estate tax by its rightful name: the death tax.

Pushing a permanent repeal certainly has been a Sisyphean struggle. Every time we rolled this legislation almost to the top of the hill, it rolled back down.

We're determined to win this fight because we know how much senior citizens hate a tax that deprives their children and grandchildren of their rightful inheritance.

America's seniors and all who love and admire them should urge their senators and representatives, in no uncertain terms, that now is the time to drive a stake through the heart of this universally despised tax.

James L. Martin is president of the 60 Plus Association, a senior-citizens advocacy organization.
4. Mark Huddleston lives in Delaware, Ohio with his wife and two children. Let us assume that last year Ohio Wesleyan paid him $100,000 in salary plus put $20,000 in fringe benefits. Among their expenses are $6,000 for an uninsured hospital stay, $12,000 in donations to Ohio Wesleyan, $200 on bow ties, and $2,000 on school lunches for the kids. They also were able to save $13,000.

a. Given the Federal Personal Income Tax Table below, how much will the Huddlestons owe in taxes?

<table>
<thead>
<tr>
<th>If taxable income is over</th>
<th>But not over</th>
<th>The tax is:</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0</td>
<td>$14,600</td>
<td>10% of the amount over $0</td>
</tr>
<tr>
<td>$14,600</td>
<td>$59,400</td>
<td>$1,460.00 plus 15% of the amount over $14,600</td>
</tr>
<tr>
<td>$59,400</td>
<td>$119,950</td>
<td>$8,180 plus 25% of the amount over $59,400</td>
</tr>
<tr>
<td>$119,950</td>
<td>$182,800</td>
<td>$23,317.50 plus 28% of the amount over $119,950</td>
</tr>
<tr>
<td>$182,800</td>
<td>$326,450</td>
<td>$40,915.50 plus 33% of the amount over $182,800</td>
</tr>
<tr>
<td>$326,450</td>
<td>no limit</td>
<td>$68,320.00 plus 35% of the amount over $326,450</td>
</tr>
</tbody>
</table>

Standard Deduction = $10,000  
Personal Exemption = $3,200

b) How much is their effective tax rate?

\[
\frac{12,130}{182,800} = 0.066\]

12.13%

c) How much is their marginal tax rate?

25%

d) If Mark had acquired some stock in Apple computer in 2000 and sold it for a $10,000 more than he paid for it, how much would his taxes have gone up?

Long term capital gain, only 15% taxable

$15,000 more.
5. Let us suppose the supply and demand for construction grade lumber in the Bahamas may be given by

\[ Q_s = 70 \text{ Price} \]
\[ Q_d = 500 - 30 \text{ Price} \]

As I have mentioned in class, the Bahamas puts a rather large excise tax on imported goods. Since they produce very little in the way of construction grade lumber and must import what they use. This means that they are essentially subjecting this good to an excise tax. Let us assume that the tax is 40%.

a. What would be the equilibrium price of this lumber in the Bahamas after the imposition of the tax?

\[ Q_s = \frac{70 \cdot \rho}{1.4} = 50 \rho \]
\[ Q_s = 50 \rho = 50 \cdot \frac{6.25}{2.5} = 125 \]
\[ \rho = 50 \]
\[ \rho = 6.25 \]

b. What would be the quantity purchased?

\[ Q_d = 500 - 30 \rho = 500 - 30 \cdot 6.25 = 312.5 \]

\[ \rho = 4.46 \]

\[ 50 \rho = 275 \]

\[ 4.46 \]

\[ = 275 - 187.5 = 87.5 \]

(c. What share (percent) of the tax is paid by the firms, i.e., the sellers?

\[ \frac{Q_s}{\rho} = 70 \]
\[ 312.5 \]
\[ 4.46 \]
\[ 1.79 \]
\[ 30.2 \%

\[ \frac{4.46}{1.79} = 2.5 \]
\[ \frac{1.25}{1.79} = \frac{69.82}{125} \]

\[ e. \text{Cite two goods in the United States that are actually subject to an excise tax and the reason that each is subject to such a tax.} \]

- Alcohol
- Cigarettes
- Symphony
- Gasoline, hunting & fishing equipment - user fee
- Telephone - revenue.
6. (10 points. All must answer.)

Let us suppose gasoline sells for $2.75 a gallon. (Do you wonder what students next year will think about this price?) The private demand for gas is given in the graph to the right.

a. Suppose each gallon of gasoline causes a 50 cent externality to society. What is the socially optimal quantity of gasoline?

b. Suppose we put a 50 cents a gallon tax on gasoline. What is the name for such a tax? (Note: I am looking for an answer that reflects the name of the economist who came up with the idea.)

Pigouvian

c. Please explain what CAFÉ is and discuss it in terms of gasoline.

corporate Avg. Fuel Economy. Manufacturers of autos must meet an avg. level of fuel efficiency, mpg, on new vehicle.

d. Would you favor the use of CAFÉ, gasoline taxes or neither to get to the socially optimal quantity? Defend your answer.
7. (10 points. All must answer.)

a. Give an example of an in-kind transfer.

Medicaid, Food stamps, Section 8 Housing
Ford College scholarships

b. A recipient’s utility is usually lower if an in-kind transfer is used. Give one reason from the class why they are used.
- Donor has desires as to how used
- Essentials: Food stamps help farmers (a bit)
- Ensure while family gets benefits Housing is all in family

c. What are two features of TANF that differentiated it from the program it replaced?
- Limited time (5 yrs or less)
- Less harsh reduction in benefit if work
- Requires training or education of recipient

In the graph to the right we have an individual who can work up to 100 hours a week. Let us assume their wage rate is $7 per hour. Their budget line is given by AB.

d. Draw an indifference curve that shows the person working 30 hours per week. Label it U1.

\[ \text{70 hrs Leisure} \]

e. Suppose TANF gives this person $200. The person is allowed to earn $60 without any reduction in their benefits, but after that they lose 50 cents in benefits for every dollar they earn. Draw their new budget line and label it CD.

\[
\begin{array}{ccccccccc}
\text{Leisure} & \text{Labor} & \text{TANF} & \text{Total Inc} & \text{Leisure} & \text{Labor} & \text{Empire} & \text{TANF} & \text{Total Inc} \\
100 & 10 & 0 & 200 & 85 & 30 & 45 & 2.50 & 460 \ 
90 & 20 & 20 & 220 & 80 & 36 & 44 & 1.00 & 460 \ 
80 & 30 & 40 & 240 & 75 & 50 & 43 & 0.50 & 460 \ 
\end{array}
\]

f. Draw a new indifference curve tangent to CD and consistent with the first one. Label the new one U2.

\[ \text{U1. Label the new one U2.} \]

g. What has happened to the number of hours worked since part (d)

\[ \text{went down, but answer will vary} \]
Number 8-27 are worth one point each. Short answer.

8. Cite one characteristic that defines a public good.
   
   \[ \text{non-excludable or non-rival or lightly excludable} \]

9. Give an example of a public good.
   
   \[ \text{fence, dam} \]

10. Give an example of a good subject to a network externality.
   
   \[ \text{phones, fax, etc.} \]

11. What is the Rawls criterion, i.e., Rawlsianism?
   
   \[ \text{Maximin subjective utility is least worst off persons.} \]

13. Who gets the best return on their social security taxes?
   
   a. single men
   b. single women
   c. married men
   d. married women

14. Which government program provides health insurance, i.e., covers the health care costs, of the indigent?
   
   \[ \text{Medicare} \]

15. Cite one way from class or the text, used to set the social discount rate in a cost benefit analysis

   \[ \text{Cost of capital, time preference (savings), legislation} \]

16. How would you describe the value of the United States Gini coefficient relative to Europe?

   \[ \text{higher} \]

17. From class, cite one of the flaws with the current measure of poverty in the United States.

   a. no adjusted cost of living
   b. no taking into account household

18. What is the highest marginal tax rate under the Corporate Income Tax?

   \[ 35\% \]

19. True or False: The Corporate Income Tax allows firms to both depreciate investments as well as offering an investment tax credit.

   False

20. Suppose you owned a house in Ohio that has a true market value of $100,000. If the local tax rate is 20 mills, how much do you owe in property taxes?

   \[ 20 \text{ mills} \times 20 \text{ mills} = 2 \text{ mills} 

   \[ 2 \times 100,000 = 2,000 \]

21. True or False: There is no United States federal inheritance tax.

   True

22. True or False. In general, sales taxes tend to be regressive.

   True

23. In general, which government program pays for nursing home stays?

   \[ \text{Medicare} \]

24. Cite one activity that Milton Friedman belies is not an appropriate role for government.

   \[ \text{Interstate Highways} \]

25. The Corporate Income Tax leads to a greater use of debt financing. Why?

   \[ \text{The interest is tax deductible} \]