

Final Exam: Economics & U.S. Government

Name and date:

Here is your open-book final exam. Follow the instructions for due date and turn-in procedure. Complete the questions below in pen/pencil. Give complete answers. If you don't use this handout, you won't get credit for your work. The chapters are from the textbook.

(50 questions, 100 points)

Core concepts

1) (4 points) Economics uses big numbers:

1. Brent asks, "Will you marry me?" Brenda replies, "I'll let you know in one thousand seconds." How long is that in minutes?

Show work:

Answer: _____

2. Brenda replies, "I'll let you know in one million seconds." How long is that in days?

Show work:

Answer: _____

3. Brenda replies, "I'll let you know in one billion seconds." How long is that in years?

Show work:

Answer: _____

4. Brenda replies, "I'll let you know in one trillion seconds." How long is that in years?

Show work:

Answer: _____

2) (2 points) Definitions: See the test review notes posted nearby.

1. Microeconomics deals with _____ and _____.
2. Macroeconomics deals with _____ and _____.

3) (1 pt) Give a quick definition of "Economics": What is it, at its core? See the test review notes.

4) (1/2 pt each, 2 pts) Four factors of production

- 1.
- 2.
- 3.
- 4.

5) (2 pts) The three basic questions of Economics. The first one is given. See review notes.

1. What to produce?
- 2.
- 3.

Ch. 2: Scarcity and Choice

6) (1 pts) The basic problem of Economics:

"The reality that human beings have _____ wants and needs, but resources are always _____.

7) (2 pts) Big Corporation was faced with a choice: In the end, they decided to buy a new CNC drill for \$100,000 instead of upgrading their factory air conditioning, which would have cost \$125,000. The new CNC drill will save them \$40,000 a year in labor costs. Upgrading their air conditioner would have saved them \$25,000 a year in electricity.

1. What was their actual cost in dollars? _____
2. What was their opportunity cost in dollars per year? _____

Ch. 3-5: Supply & Demand

8) (4 pts) See chart below.

1. What's the equilibrium price? _____
2. At a price of \$12, will there be a surplus or shortage? _____
3. Of how many units? _____

4. Explain why: _____

Market Demand and Supply Schedules			
Price	Quantity Demanded	Quantity Supplied	Surplus/Shortage
\$20	0	20	20
18	2	16	14
16	4	10	6
14	7	7	0
12	11	5	?
10	13	0	-13

9) (3 pts) See chart below.

1. What's the equilibrium price? _____
2. If the government imposed a price ceiling of \$4, what would be the result? _____

3. If the government imposed a price floor of \$7, what would be the result? _____

Price	Quantity Demanded	Quantity Supplied
\$1	14	2
2	12	3
3	10	4
4	8	5
5	6	6
6	4	7
7	2	8
8	0	10

10) (2 pts) If Big Corporation charges \$100 per widget, they can sell 10,000 units. If they lowered their price to \$95 per widget, they could sell 11,000 units. Their manufacturing cost in both scenarios is \$50 per unit. Which price would net them the most profit?

Show work:

Answer: _____

Ch. 7-8: Economics of the Firm

11) (2 pts) Three classic business structures. The first one is given.

1. Sole proprietorship
- 2.
- 3.

12) (5 pts) Corporations sell stock to raise capital. The owners of the stock are known as

S _____. For each share of stock they own, they get one V _____ in deciding the affairs of the business. If the corporation is profitable, it can declare a quarterly D _____ which is paid to said owners of stock. If the corporation is successful, your stock value should go U _____. On the other hand, if the corporation is managed poorly and goes bankrupt, your stock value will become Z _____.

13) (2 pts) Big Corporation decides to borrow the \$100,000 for their new CNC drill from a bank. If they finance the whole amount (\$100,000) at an annual interest rate of 5% for a period of 5 years:

1. What will their monthly payments be? _____
2. What will their total-of-payments be? i.e. How much will they have paid in principal and interest over the entire 60-month term? _____

14) (3 pts) Big Corporation loan continued: Now compare a 7-year loan with an annual interest rate of 6%.

1. Monthly payments? _____
2. Total principal & interest over the entire 84 months? _____
3. Which loan terms should they go with? WHY? _____

15) (1 pt) Re-read the original scenario, back in question #7. What is the “payoff period” in years for the new CNC drill?

Show work:

Answer: _____

Ch. 8-11: Market Structure and Competition

16) (3 pts) List the four types of competition, going from most competitive to least competitive.

Give 2 examples of each. The first one is given. See test review notes posted nearby.

1. Perfect competition. Examples: An open-air fish market, and toothpaste in a supermarket.

2. _____

3. _____

4. _____

17) Antitrust laws.

a) (1 pt) Give a short description of the Sherman Act, 1890. What was it trying to address? Who were the bad guys? Who were the good guys? Did it work?

b) (1 pt) Do the same for the Clayton Act, 1914.

18) (1 pt) Securities Exchange Commission (SEC). Give a summary of its history and mission. 5-6 bullet points.

19) (1 pt) Food & Drug Administration (FDA). Give a summary of its history and mission. 5-6 bullet points.

20) (1 pt) Department of Commerce (DOC). Give a summary of its history and mission. 5-6 bullet points.

21) (1 pt) Securities Exchange Commission (SEC). Give a summary of its history and mission. 5-6 bullet points.

22) (1 pt) Federal Trade Commission (FTC). Give a summary of its history and mission. 5-6 bullet points.

Ch. 17: Money

23) (3 pts) Three functions of money. See test review notes.

1. _____
2. _____
3. _____

24) (4 pts) Two measures of the nation's money supply. You can use the definitions in our test review notes.

M1: Includes _____

M2: Includes M1 plus _____

What is M1 currently in the U.S., in dollars? _____

What is M2 currently in the U.S., in dollars? _____

25) (5 pts) If the government creates (prints) too much money, too quickly, it causes

_____ . If, in the middle of a Monopoly game, you suddenly handed each player an additional \$2,000 in cash, the price of any traded properties would go _____. If Governor Newsom handed out \$5,000 cash debit cards to everyone in order to get their votes, the prices of everything in the State would go _____. If Mayor Gloria raised the San Diego minimum wage to \$50 per hour in order to secure their votes, the price of burgers and French fries would go _____. If Treasury Secretary Scott Bessent just simply printed \$32 Trillion dollars and 'paid off' the entire national debt in one day, the price of everything in the nation would go _____ .

Ch. 17: Financial Markets

26) (2 pts) Boeing Corporation makes commercial airliners like the 747 Jumbo Jet and the 787 Dreamliner. Let's say Boeing decides to raise \$20 Billion capital by selling bonds. Each bond certificate has the following:

- Face Value: \$1,000
- Term: 1 year to maturity
- Initial price: \$900

How many bonds (bond certificates) will they need to sell in order to raise the \$20 billion?

Show work:

Answer: _____

27) (2 pts) By raising the \$20 billion in this way, what interest rate are they (Boeing) effectively paying for the money? Another way of asking the question is, "What is the bond yield?"

Show work:

Answer: _____

28) (2 pts) Congratulations, you have invented a rechargeable battery that can power a full-size automobile for 10 years between charges. Now you need to sell stock to raise capital to build your battery factory. You sell stock to 5 friends, plus yourself:

<u>Shareholder</u>	<u># of shares purchased</u>
1	100
2	200
3	500
4	400
5	300
Yourself	1,000
Total shares sold	2,500

By selling stock in this manner, what percentage of your company are you giving up?

Show work:

Answer: _____

29) (1 pt) Batteries, continued: Can any group of 3 shareholders (not counting you) absolutely dictate how the company is run? WHY or WHY NOT?

Answer: _____

30) (1 pt) Sam Stinson wants to start a solar company, the *Samuel S. Stinson Solar Company*. He borrows \$40,000 seed capital from his uncle Steve Stinson, who receives an I.O.U. from Sam for that amount. He also requires Sam to hand over his rare coin collection as collateral for the loan. When the loan is paid off, he agrees to return the coin collection back to Sam. This is an example of which type of financing? EXPLAIN YOUR ANSWER.

Answer: _____

31) (2 pts) Additional terms in Sam's loan agreement:

- Amount borrowed: \$40,000
- Term: 5 years
- Interest: 5% per annum

1. What is Sam's monthly payment for principal & interest, in dollars? Show work.

2. What is his total of payments over the 60-month loan term? Show work.

32) (1 pt) Sam is not a prudent manager, and the solar business is forced into bankruptcy at the end of year 2. Poor Sam is left with nothing. He still owes his Uncle Steve a large part of the \$40,000. What is Steve's recourse with a loan like this? Go back and re-read the scenario. Explain your answer.

33) (1 pt) Sally saves 10% of her monthly income in a bank account. Her bank account has grown to \$50,000 over the course of several years. She lends part of this money directly to her sister Samantha to help her start a banjo-playing business. This is an example of which type of financing? Explain.

Ch. 19: Gross Domestic Product (GDP)

34) (1/2 pt each, 2 pts) The formula for GDP is: $GDP = C + I + G + NX$. Define each term:

C =

I =

G =

NX =

Next few problems: *“Gross Domestic Product (GDP) is the total market value of all final goods and services produced within a country’s borders in a given time period”*

35) (2 pts) Manufacturing example:

- Car production for the year: 10 million vehicles
- Cost to manufacture each car, including materials & labor: \$20,000
- Selling price of each car: \$30,000
- Profit per car: \$10,000

How much does car production contribute to GDP for that year?

Show work:

Answer: _____

36) (2 pts) Services example:

During the past year, the law firm of “*Dewey, Cheatham and Howe*” billed its clients as follows:

- 800 Senior Partner hours @ \$300/hr
- 500 Junior Partner hours @ \$200/hr
- 400 Associate hours @ \$100/hr

During the year, the firm had total expenses of \$200,000, including labor, rent, supplies, and related items. How much did the firm contribute to GDP that year?

Show work:

Answer: _____

37) (1 pt) Used car example:

Elvis sells his used 2015 BMW on Facebook Marketplace for \$12,000. He paid \$14,000 for the car two years earlier. He spent \$1,000 on repairs over the past two years. Immediately after selling it, he spends \$10,000 on another used car. How much did his Facebook Marketplace sale contribute to GDP? Explain.

38) (1 pt) Manufacturing example:

Ford manufactures a new F-150 truck in its Michigan plant in November, 2026. The truck is loaded on a train and shipped north to Canada, where it is sold in December to a man named James MacDonald for the equivalent of \$30,000 U.S. dollars. MacDonald is actually a car broker, and turns around and sells it a day later to a man called Marc-Antoine Beaulieu for the equivalent of \$31,500. Beaulieu is actually buying it for his nephew, Benjamin Hartley, who pays him the \$31,500, plus a \$500 gold watch that he’s owned for 2 years, all in the month of December.

How much does the Ford F-150 contribute to U.S. GDP for 2026? Explain your answer.

39) (1 pt) Would this be C, I, G, or NX?

The Smith's buy groceries and an automobile.

40) (1 pt) Would this be C, I, G, or NX?

Tesla manufactures a vehicle in its Fremont, CA plant, which is ultimately sold to a buyer named Mr. Nkosi in South Africa.

41) (1 pt) Would this be C, I, G, or NX?

You start a green, ocean-friendly, sustainable cosmetics company with an eco-friendly vibe. In order to ship your products in biodegradable packaging, you purchase a \$10,000 packaging machine that uses glue made from quinoa starch. Would this purchase be C, I, G, or NX?

U.S. Constitution

42) (4 pts) Explain what these are, and how the Constitution deals with these four core ideas.

Use 3-4 bullet points each:

1. Limited government:

2. Separation of powers:

3. Checks and balances:

4. Popular sovereignty:

43) (1/2 pt each, 5 pts) Article 1 establishes the _____ branch. Its purpose is to _____ the law. Our Congress is B _____, which is a word that means two-houses. The _____ is the upper house, while the _____ is the lower house. The elected terms are _____ years, and _____ years, respectively. The upper house has _____ members from each State, for a total of _____ members. The lower house is based on population, and always has a total of _____ members.

44) (1/2 pt each, 2 pts) Article 2 establishes the _____ branch, headed by a single _____, elected by all the people for a term of _____ years. This branch of government is responsible for _____ the law.

45) (1/2 pt each, 3 pts) Article 3 establishes the _____ branch, which is responsible for _____ the law. The Supreme Court currently has _____ Justices, appointed for life. The _____ appoints new Justices, and the _____ confirms the appointments. Our current Chief Justice, appointed by President Bush, is named _____.

46) (1 pt) Which amendment guarantees freedom of expression? _____

47) (1 pt) Which amendment guarantees protection from unreasonable searches and seizures?

48) (1 pt) Which amendment outlawed slavery? _____

49) (1 pt) Which amendment created the Federal Income Tax? _____

50) (1 pt) Which amendment outlawed liquor? _____

****End of exam****