

Sample Midterm 1

This sample exam is not a study guide. It is just a sample of the type of questions you will find on the exam. Just knowing the answers to these questions is not enough preparation for the test. To truly prepare for the exam, you should: read textbook chapters 1 through 6, review your lecture notes, and **review all homework assignments 1 -4 and problems solved in class.** Any problem solved in class or asked in a homework assignment is a fair question on the exam.

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) In economics, scarcity refers to the situation of: 1) _____
 - A) optimizing with the use of limited information.
 - B) having more wants than the amount of available resources.
 - C) sellers setting the prices of their products too high for people to be able to afford them.
 - D) rationing of available goods and services by the government.

- 2) Which of the following correctly defines the term "equilibrium"? 2) _____
 - A) It refers to a situation where all agents are simultaneously optimizing.
 - B) It refers to government intervention that efficiently allocates scarce resources.
 - C) It refers to an optimizing decision made by an individual economic agent.
 - D) It refers to analysis that uses data to arrive at conclusions.

- 3) A student has two options: she can either surf the web, or work part-time. Working part-time pays her \$20 per hour. What is the student's opportunity cost of surfing the web for 5 hours? 3) _____
 - A) \$100
 - B) \$20
 - C) \$50
 - D) \$4

Maria has to choose between driving and taking a train to destination A. Travelling by train will cost her \$400 and will take 4 hours. Driving to destination A takes 6 hours, and the required amount of gasoline costs \$250. Her opportunity cost of time is \$15 per hour.

- 4) Refer to the scenario above. To optimize, Maria should choose to: 4) _____
 - A) drive, as it will save her \$120.
 - B) travel by train, because it is quicker.
 - C) travel by train, as it will save her \$30 in travel time.
 - D) drive, as it will give her a real saving of \$150.

- 5) Empiricism refers to the process of: 5) _____
 - A) making choices using values and beliefs.
 - B) measuring variables.
 - C) collecting and organizing data.
 - D) testing ideas using data.

- 6) Which of the following statements identifies a difference between correlation and causation? 6) _____
 - A) Correlation occurs when one thing directly affects another, whereas causation implies a mutual relationship between two things.
 - B) Causation cannot arise when correlation is present, and correlation cannot arise when causation is present.
 - C) A causal relationship exists between two variables when they are correlated, but correlation does not necessarily exist if there's a causal relationship between two variables.
 - D) Correlation implies a mutual relationship between two things, whereas causation occurs when one thing directly affects another.

- 7) Randomization is the assignment of subjects by _____ to a _____. 7) _____
- A) chance, rather than by choice; treatment group or into a test group.
 - B) choice, rather than by chance; treatment group or into a control group.
 - C) chance, rather than by choice; treatment group or into a control group.
 - D) choice, rather than by chance; treatment group or into a test group.
- 8) If Project A has a cost of \$2 and provides a benefit of \$3, and Project B has a cost of \$ 5 and provides a benefit of \$8, which of the following statements is true? 8) _____
- A) The net benefit of Project A is \$5.
 - B) A shift from Project A to Project B increases the net benefit by \$1.
 - C) An individual can optimize by choosing Project B.
 - D) Project A has a higher net benefit than Project B.

Sarah has to choose between renting a hotel room for two days and renting a hotel room for three days.

- 9) Refer to the scenario above. If Sarah is optimizing in differences, then which of the following statements is true? 9) _____
- A) An optimizer will rent the hotel room for three days if the benefit of staying for the third day exceeds the benefits of staying for the first two days.
 - B) An optimizer will rent the hotel room for three days if the benefit of staying for the third day exceeds the cost of staying for the third day.
 - C) An optimizer will rent the hotel room for three days if the net benefit of staying for three days exceeds the net benefit of staying for two days.
 - D) An optimizer will rent the hotel room for three days if the cost of staying for the first two days is less than the cost of staying for the third day.

Assume that a firm wants to set up a factory. It has four different options. The rent of the factory in the four different locations and the time taken to transport the product from each location to the market is shown in the table below. The opportunity cost of time is \$10 per hour.

Factory Location	Monthly Commuting Time (hours)	Monthly Rent (\$)
Very Far	30	2,060
Far	25	2,100
Close	15	2,300
Very Close	5	2,500

- 10) Refer to the table above. Which is the optimum location for the firm to set up its factory? 10) _____
- A) Close
 - B) Very Far
 - C) Very Close
 - D) Far
- 11) Which of the following statements is correct about the concept of willingness to pay? 11) _____
- A) The willingness to pay is the lowest price that a buyer is willing to pay for an extra unit of a commodity.
 - B) The willingness to pay for a commodity increases exponentially as the consumption of the commodity increases.
 - C) The willingness to pay for a commodity decreases as the amount consumed of the commodity increases.
 - D) The willingness to pay for a commodity increases linearly as the consumption of the commodity increases.

The following table shows the demand schedules of three consumers of wine. Assume that these three buyers constitute the entire market.

Price (\$/Bottle)	Sandra's Demand (Bottles)	David's Demand (Bottles)	Mary's Demand (Bottles)
\$8	2		10
\$6	14	15	18
\$4		23	24
\$2	24	27	28

- 12) Refer to the table above. If the market price of wine is \$8/bottle, and the market demand for wine is 19 bottles, David's consumption of wine is: 12) _____
 A) 7 bottles. B) 4 bottles. C) 9 bottles. D) 12 bottles.
- 13) Two goods are said to be substitutes when a fall in the price of one good: 13) _____
 A) doesn't affect the demand for the other good.
 B) leads to a right shift in the demand for the other good.
 C) leads to a rise in the price of the other good.
 D) leads to a left shift in the demand for the other good.
- 14) Assume that the economy is in a recession and consumers are expecting a fall in their income levels. This will cause a(n): 14) _____
 A) increase in the total quantity demanded of all inferior goods.
 B) decrease in the total quantity demanded of all normal goods.
 C) right shift in the market demand for all normal goods.
 D) left shift in the market demand for all normal goods.
- 15) Which of the following is likely to lead to an increase in the quantity supplied of steel? 15) _____
 A) A rise in the market price of steel
 B) A fall in the wage rate of labor employed in the steel industry
 C) An increase in the productivity of capital due to technological innovation
 D) An expected increase in the demand for steel in the future
- 16) Assume that a worker in a technology firm can produce 3 circuit boards in an hour. Due to subsequent innovation, he is now able to produce 6 circuit boards per hour. Other things remaining the same, the firm's supply curve is likely to: 16) _____
 A) shift to the right. B) remain unchanged.
 C) become steeper. D) shift to the left.

The following table shows the market demand schedule and supply schedule for notebooks.

Price (\$/unit)	Quantity Demanded (units)	Quantity Supplied (units)
1	20	4
2	16	6
3	14	10
4	12	12
5	10	14
6	7	17
7	4	20
8	2	22
9	1	25

- 17) Refer to the table above. What is the equilibrium price of notebooks? 17) _____
 A) \$2 B) \$7 C) \$6 D) \$4
- 18) If the demand and supply curves for a commodity shift to the right and the shift in demand is greater than the shift in supply, then in comparison to the initial equilibrium, the new equilibrium will be characterized by: 18) _____
 A) a higher price and a lower quantity. B) a higher price and quantity.
 C) the same price and quantity. D) a lower price and quantity.
- 19) Z is a normal good. The equilibrium price and quantity of Z in the year 2011 was \$25 and 60 units, respectively. In 2014, the equilibrium price of Z had increased to \$35 but the equilibrium quantity had decreased to 50 units. Other things remaining the same, which of the following could explain this change? 19) _____
 A) Shift of the supply curve of Z to the right
 B) Shift of the demand curve for Z to the right
 C) Shift of the supply curve of Z to the left
 D) Shift of the demand curve for Z to the left
- 20) The market demand for hamburgers is given by $Q_d = 50 - 2P$. The market supply of hamburgers is given by $Q_s = 5P - 6$. The equilibrium price and quantity of hamburgers is; 20) _____
 A) $P^* = 8, Q^* = 34$ B) $P^* = 9, Q^* = 32$ C) $P^* = 10, Q^* = 30$ D) $P^* = 12, Q^* = 26$
- 21) Which of the following is likely to be included in a country's Gross Domestic Product in a particular year? 21) _____
 A) The total amount of flour used by bakeries to make bread in that year
 B) An unused stock of goods produced in the previous year
 C) An unsold inventory of automobiles produced in that year
 D) The total amount steel used in the production of automobiles in that year
- 22) Which of the following will be included in the calculation of gross domestic product using the expenditure method? 22) _____
 A) Services purchased by the government B) Interest paid by households for loans
 C) Dividends paid by firms to shareholders D) Wages paid to labor by firms

- 23) The gross domestic product of Ritzland during a particular year was \$120,000. If the expenditure on investment was \$16,000, the expenditure incurred by the government was \$35,000, the value of exports was \$10,000, and the value of imports was \$22,000, calculate the expenditure on consumption. 23) _____
- A) \$44,000 B) \$37,500 C) \$19,000 D) \$81,000
- 24) Which of the following will be included in the income-based method of national accounting? 24) _____
- A) A consumer's expenditure on a imported car
 B) A student's expenditure on education
 C) A worker's retirement benefits
 D) A firm's expenditure on raw materials

Infi Corp. is a leading manufacturer of smart phones. Every year, customers spend \$31 billion on smart phones manufactured Corp. \$10 billion of this sale comes from a leading retailer while the remaining buy directly from Infi Corp. The retailer pays 70% of its revenue to Infi Corp. and Infi Corp. pays \$19 billion to its suppliers.

- 25) Refer to the scenario above. The retailer adds a value of _____ to the production process. 25) _____
- A) \$3 billion B) \$10 billion C) \$1 billion D) \$5 billion
- 26) The value of production generated by a country's factors of production within the borders of foreign countries during a particular year was \$51,000 and the production of foreign factors of production within the borders of the country during that year was worth \$80,000. Which of the following is likely to be true in this case? 26) _____
- A) The GDP of the country is lower than its GNP.
 B) The GDP of the country equals its GNP.
 C) The GDP of the country is higher than its GNP.
 D) The GDP of the country equals its trade balance.

A country produces only one good. It produced 5,000 units of the good during Year 1 and 6,000 units of the good in Year 2. The price of each unit of the good in Year 1 was \$280 and it was \$320 in Year 2. Suppose Year 1 is taken as the base year for the calculation of GDP.

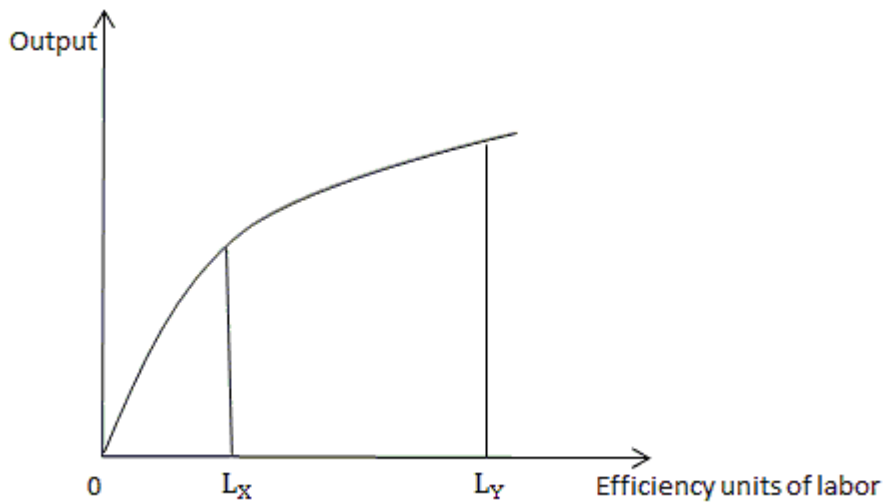
- 27) Refer to the scenario above. The real GDP of the country in Year 2 was _____. 27) _____
- A) \$1,420,000 B) \$1,680,000 C) \$32,000,000 D) \$240,000
- 28) Refer to the scenario above. The nominal GDP of the country for Year 2 was _____. 28) _____
- A) \$1,920,000 B) \$2,510,000 C) \$174,000 D) \$180,000
- 29) The consumer price index for a country in Year 1 was 129 and in Year 2, it was 133. The inflation rate of the country between the two years is approximately _____. 29) _____
- A) 2.2 percent B) 6 percent C) 3.1 percent D) 4 percent
- 30) Mr. Clooney inherited a sum of \$30,000 in 1990. If the price index for 1990 was 100 and the price index for 2014 is 188, the value of the money he inherited in 2014 dollars is _____. 30) _____
- A) \$48,000 B) \$38,800 C) \$56,400 D) \$45,200
- 31) The gross domestic product of a small country which has a population of 200,000 is \$56,000,000. The income per capita of the country is _____. 31) _____
- A) \$50 B) \$200 C) \$280 D) \$100

The price of an Apple Watch Series 3 GPS + Cellular in the U.S. is \$399. The table below lists the income per capita and prices of the same Apple Watch in four different countries in 2017 in their own currencies. Using the Apple Watch as a representative commodity common to the countries, you can calculate the purchasing power parity (PPP)-adjustment factor for each country, and then the PPP adjusted level of GDP per capita in each country

Country	GDP per capita	Apple Watch Price
1	15,600 units of local currency	999 units of local currency
2	34,500 units of local currency	2,300 units of local currency
3	22,670 units of local currency	10,500 units of local currency
4	20,000 units of local currency	1,900 units of local currency

- 32) Refer to the scenario above. Which country has the highest income per capita in PPP adjusted dollars? 32) _____
- A) Country 1 B) Country 2 C) Country 3 D) Country 4
- 33) The income per capita and population of two neighboring countries for a particular year were equal. However, Country 1 had a higher income per worker than Country 2. Which of the following is likely to be true? 33) _____
- A) The number of people employed is higher in Country 2 than in Country 1.
 B) The number of people unemployed is lower in Country 1 than in Country 2.
 C) The number of retired people is higher in Country 2 than in Country 1.
 D) The number of children aged below 15 is higher in Country 2 than in Country 1.

Country X and Country Y have identical aggregate production functions as shown below. The amount of capital stock available to each country is also equal. However, Country X has L_X amount of labor supply while Country Y has L_Y amount of labor supply.



- 34) Refer to the figure above. What does the slope of the aggregate production function imply? 34) _____
- A) Diminishing marginal product of labor B) Increasing returns to scale
 C) Diminishing marginal product of capital D) Decreasing returns to scale

- 35) Suppose a country's labor supply increases in a year while its capital stock remains constant. Which of the following is likely to happen in this case if output is a function of capital and total efficiency units of labor? 35) _____
- A) Its total output will remain constant. B) Its total output will increase.
C) Its total output will decrease. D) Its output per capita will decrease.
- 36) Laborland has 1 million workers. Suppose 50,000 workers migrate from a neighboring country to join Laborland's work force. Which of the following will happen in this case if Laborland's capital stock remains unchanged? 36) _____
- A) The total efficiency units of labor in the economy will decrease.
B) The relationship between output and capital stock becomes negative.
C) The country's income per worker will increase.
D) The marginal contribution of labor to Laborland's output will fall.
- 37) In a graph with aggregate output in the Y-axis and human capital in the X-axis, which of the following will result in an upward shift of the aggregate production function? 37) _____
- A) An increase in the aggregate price level in the economy
B) An increase in the rate of taxation in the economy
C) An increase in productivity due to the discovery of an advanced technology
D) An increase in the number of educated people in the economy
- 38) The aggregate production function of an economy shifts upward when _____ produce a higher output. 38) _____
- A) the same amount of capital and labor
B) the same amount of capital and a higher amount of labor
C) the same amount of labor and a higher amount of capital
D) none of the above
- 39) In the year 2010, the income per worker in the United States was \$82,359 and the income per worker in South Korea was \$54,315. The income per worker in South Korea if the technology were at US level would be \$74,496. What part of the income per worker gap between the US and South Korea can be explained by differences in technology ? 39) _____
- A) \$28,044 B) \$20,181 C) \$7,863 D) \$4,315
- 40) In the year 2010, the income per worker in the United States was \$82,359 and the income per worker in South Korea was \$54,315. The income per worker in South Korea if the technology were at US level would be \$74,496. What part of the income per worker gap between the US and South Korea can be explained by differences in human capital and physical capital? 40) _____
- A) \$7,863 B) \$20,181 C) \$4,315 D) \$28,044