

Multiple choice: Choose the best response to each prompt.

1. The attainable production points on a production possibility curve are
 - (a) the horizontal and vertical intercepts.
 - (b) the points outside the area enclosed by the production possibilities frontier.
 - (c) the points along and inside the production possibility frontier.
 - (d) the points along the production possibilities frontier.

2. Suppose there is a hot summer drought that leads to smaller harvest yields for agricultural products. Which of the following would happen to a PPF that included an agricultural product on each of its axes?
 - (a) There will be no change in the PPF.
 - (b) The economy would move to a point inside the PPF.
 - (c) The PPF would shift inward.
 - (d) The PPF would shift outward as people dedicate more resources to producing food.

3. When quantity demanded decreases at every possible price, we know that the demand curve has
 - (a) shifted to the right.
 - (b) not shifted; rather, we have moved down the demand curve to a new point on the same curve.
 - (c) not shifted; rather, we have moved up the demand curve to a new point on the same curve.
 - (d) shifted to the left.

4. Suppose there is a red tide onto the beaches of SW Florida which causes eye and lung distress for beach goers. Which of the following statements is most likely regarding the result in the market for SW Florida beach hotel rooms,
 - (a) The equilibrium quantity would definitely increase.
 - (b) the market supply would be reduced at each relevant price.
 - (c) The equilibrium price would definitely increase.
 - (d) the market demand would be decreased at each relevant price.

5. If a surplus (excess supply) exists in a market we know that the existing price is
- (a) above equilibrium price and quantity demanded is greater than quantity supplied.
 - (b) below equilibrium price and quantity demanded is greater than quantity supplied.
 - (c) above equilibrium price and quantity supplied is greater than quantity demanded.
 - (d) below equilibrium price and quantity supplied is greater than quantity demanded.
6. What would most likely happen to the equilibrium price and quantity in the market for a product if the price of an input used to produce the product decreased, the price of a substitute good (for consumers) increased, some suppliers decided to enter the market, and health officials announced that consuming the product lowers the risk of heart disease?
- (a) Quantity will increase and the effect on price is ambiguous (uncertain).
 - (b) The effect on both price and quantity is ambiguous (uncertain).
 - (c) Price will increase and the effect on quantity is ambiguous (uncertain).
 - (d) Price will decrease and the effect on quantity is ambiguous (uncertain).
7. You're traveling in Ireland and are thinking about buying a new digital camera. You've decided you'd be willing to pay \$125 for a new camera, but cameras in Ireland are all priced in euros. If the exchange rate is 0.85 euros per dollar, what's the highest price in euros you'd be willing to pay for a camera?
- (a) 125.85 euros
 - (b) 106.25 euros
 - (c) 147 euros
 - (d) 110.15 euros
8. Suppose legal barriers in the United States are reduced to allow more imports of electronic consumer goods produced in Japan. All else remaining equal, this should lead to which of the following?
- (a) An increase in supply of Japanese Yen
 - (b) An increase in demand for U.S. dollars
 - (c) An increase in supply of U.S. dollars
 - (d) An decrease in supply of Japanese Yen
9. Which of the following is a measure of the aggregate price level?
- (a) $\text{Nominal GDP} / \text{Real GDP} * 100$
 - (b) $\text{Real GDP} * 100$
 - (c) $\text{Nominal GDP} * 100$
 - (d) Growth rate of real GDP

10. Which of the following is an expenditure included in the aggregate expenditure approach to calculating GDP?
- (a) Wages
 - (b) Investment
 - (c) Purchase of intermediate goods
 - (d) Income earned from producing goods and services
11. What is the definition of a marginally attached worker?
- (a) Someone who is working less than 5 hours per week.
 - (b) Someone who has a part time job but wants a full time job
 - (c) Someone not currently looking for work, but would accept a job if offered one.
 - (d) Someone who is currently working but is about to leave the labor force.
12. Suppose there is an increase in the global price for most types of energy. Energy is an input into the production of almost all goods and services. All other things remaining equal, what will be the impact on the aggregate labor market?
- (a) Decrease in labor demand
 - (b) Increase in labor demand
 - (c) Decrease in labor supply
 - (d) Increase in labor supply
13. The United States experienced a permanent decline in birth rates in 2009. What would be the impact on the market for labor 18 years later (in 2027)?
- (a) Decrease in labor demand and an increase in equilibrium wage
 - (b) Increase in labor demand and an increase in equilibrium wage
 - (c) Decrease in labor supply and an increase in equilibrium wage
 - (d) Decrease in labor supply and a decrease in equilibrium wage
14. Suppose there is a decrease in labor supply, but no immediate change in the market wage. Which of the following may result?
- (a) A decrease in unemployment
 - (b) A decrease in worker shortage
 - (c) An increase in unemployment
 - (d) An increase in worker shortage

15. Suppose businesses have a pessimistic outlook for future profitability. Which of the following would occur in the loanable funds market?
- (a) A leftward shift in the demand for investment
 - (b) A leftward shift in the supply of savings
 - (c) A rightward shift in the demand for investment
 - (d) A rightward shift in the supply of savings
16. Which of the following would lead to a rightward shift in saving supply?
- (a) A decrease in private consumer savings
 - (b) A change in government policies that lead to a decrease in tax revenue and an increase in government expenditures
 - (c) A decrease in net exports
 - (d) An increase in government borrowing
17. Which of the following is a source of aggregate productivity growth?
- (a) Growth in consumption per capita
 - (b) Growth in GDP deflator
 - (c) Growth in human capital
 - (d) Growth in exports per capita
18. Which of the following would cause an upward shift of the productivity curve?
- (a) Increase in workers' wages
 - (b) Increase in human capital
 - (c) Increase in the number of workers
 - (d) Increase in capital per worker
19. Which of the following leads to an increase in long-run real GDP per worker?
- (a) An improvement in the productivity of capital
 - (b) A decrease in imports
 - (c) An increase in the inflation rate
 - (d) A movement by governments to increase financial support unemployed people

20. When the marginal propensity to consume increases, what happens to the expenditure multiplier?
- (a) The impact on the multiplier cannot be determined
 - (b) The expenditure multiplier increases
 - (c) The expenditure multiplier decreases
 - (d) The expenditure multiplier stays the same
21. Suppose a drop in housing prices leads to a decrease in consumer wealth. What impact will this have on consumption decisions?
- (a) There is no change in consumer spending as a result of a change in stock market wealth
 - (b) Decrease in consumer spending
 - (c) Increase in consumer spending
 - (d) A decrease in consumer spending, but only if there is also a decrease in income
22. Suppose there is a decrease in the interest rate. What is the impact on investment spending plans?
- (a) Increase in investment
 - (b) Investment spending stays the same
 - (c) Investment is indeterminate.
 - (d) Decrease in investment
23. How do increases in military spending affect the aggregate demand curve?
- (a) An increase in military spending is an increase in government spending, which causes the aggregate demand curve to shift to the right.
 - (b) An increase in military spending is an increase in government spending, which causes the aggregate demand curve to shift to the left.
 - (c) An increase in military spending leads to an increase in taxes, which causes aggregate demand to shift to the left.
 - (d) An increase in military spending leads to an increase in government borrowing, which causes the aggregate demand curve to shift to the left.
24. Which of the following would cause aggregate demand to shift to the left?
- (a) A decrease in demand for exports.
 - (b) An increase in the aggregate price level.
 - (c) A decrease in taxes, leading to an increase in consumption demand.
 - (d) An improvement in the consumer confidence, leading to an increase in consumption demand.

25. Which of the following would cause the short-run aggregate supply to the left?

- (a) A decrease in demand for imported goods.
- (b) A decrease in demand for consumption.
- (c) An increase in the cost of hiring workers.
- (d) A decrease in businesses' purchases of capital equipment.

Short-answer and problem-solving questions: Provide written answers to each question in the space provided.

26. (5 points) Suppose freezing temperatures in early spring causes apple orchards to lose their fruit in the early part of the season before it can be harvested. Describe and illustrate the impact on the equilibrium price and quantity for apples.
27. (5 points) The difficult recession in 2007-2009 and beyond led to Christmas tree farmers to hold off on planting Christmas trees (it takes approximately 10-12 years to grow a typical-sized Christmas tree - and true story). In 2019, more people decided they preferred real Christmas trees over fake trees. Describe and illustrate the impact on the equilibrium price and quantity for real Christmas trees in 2019.
28. (5 points) Suppose European demand for oil and natural gas decreases. Norway is a large source for oil and natural gas imports to the Euro area. Describe and illustrate the impact on the equilibrium exchange rate between the Norway Kroner (NOK) and the Euro (EUR).

29. (5 points) Suppose an economy produces only smartphones and record players and experienced the following quantities and prices:

Smartphones in 2019: Price = \$150, Qty = 10

Record Players in 2019: Price = \$100 Qty = 12

Smartphones in 2020: Price = \$175, Qty = 11

Record Players in 2020: Price = \$120 Qty = 14

Use 2019 as a base year and compute the real GDP for both 2019 and 2020. By what percentage did real GDP grow?

30. (5 points) Suppose an economy has a working-age population with the following characteristics:

- 40 retired
- 120 employed
- 25 people not working and looking for a job
- 15 people not working, going to school full time instead of looking for work
- 10 people recently laid off, but not looking for work because they think no jobs are available.

What is the labor force participation rate?

31. (5 points) Suppose there is a decrease in stock market values which results in a decrease of wealth for consumers, leading both to an increase in desire for people near retirement age to work longer and a decrease in demand for final goods and services.
32. (5 points) Suppose the government makes a permanent cut to personal income taxes without increasing government expenditures. Suppose also with more disposable income, consumers increase their demand for final goods and services. Describe and illustrate the impact on equilibrium investment and the interest rate.
33. (5 points) Suppose businesses become pessimistic about their future profitability. Describe and illustrate the impact on the long-run level of output per worker.

34. (5 points) Suppose a decrease in income in Europe causes a decrease in demand for U.S. exports to Europe by \$375bn. Workers and business owners experience a decrease in income. Suppose the marginal propensity to consume is 0.9 and the marginal propensity to import is 0.1. Compute the immediate change in real GDP in the United States.
35. (5 points) Suppose the economy is initially in a short-run equilibrium where GDP is below potential GDP (i.e. a recessionary gap). Suggest a change in tax policy to fix the problem, and describe and illustrate the impact on real GDP and the price level.