INTERNATIONAL ECONOMICS OLYMPIAD

2019

Multiple Choice Test

All 20 multiple choice questions will be graded (4 raw points for the correct answer, −1 raw point for the incorrect answer, 0 points for no answer). Choose one answer in each question.

1. The local grocery store offers a discount of 20% if a customer pays the 10 USD monthly fee. How much should a customer's monthly spending in this store be so that paying this fee makes sense for her?

1) At least 10 USD   2) At least 30 USD   **3)** At least 50 USD   4) At least 60 USD

2. Countries A, B and C produce only watermelons (X) and grapefruits (Y). The production possibility frontiers are given by: $X_A + Y_A = 100$, $2X_B + 3Y_B = 300$, $X_C + 2Y_C = 600$. What is the maximum amount of watermelons that they can produce together if they want to produce at least 200 grapefruits?

1) 200   2) 500   **3)** 600   4) None of the above

3. GDP of the country X grows by 1% per year every year. GDP of the country Y grows by 2% per year every year. If in the year 2019 countries have equal GDP, by what year will their GDP differ by two times? (Choose the nearest estimate).

1) 2050   **2)** 2090   3) 2150   4) 2180

4. Jane spends all her money on the ingredients of her favorite cocktail. To make a portion of the cocktail, she has to mix 200 ml of orange juice with 100 ml of apple juice and with 200 ml of watber. Any juice costs 3 USD per liter, water costs 0.5 USD per liter. If she has 20 USD, how many portions of the cocktail can she make?

1) 10   2) 12   **3)** 20   4) None of the above

5. Which of the following statements best describes the concept of *commitment device*?

1) A student announces through social media that he will contribute to charity every time he gets a grade lower than B− and publish the receipts online.
2) A country leader announces the new policy of fighting corruption through increased fines for corrupt officials.
3) An investor buys treasury bonds.
4) The price of ice-creams increases after a surge in demand.

6. Which of the following scholars represents the modern institutional theory of economic growth?

1) Daron Acemoglu   2) Jared Diamond   3) Thomas Malthus   4) Adam Smith

7. The demand for widgets is given by $Q = 100-2P$, the supply is given by $Q = -20 + P$. The government sets the price ceiling at $\bar{P}$ which results in the deficit 30. Find $\bar{P}$.

1) $\bar{P} = 10$ 2) $\bar{P} = 20$ **3)** $\bar{P} = 30$ 4) $\bar{P} = 40$

8. Which of the following best describes *natural monopoly*?

1) An eco-friendly monopoly.
2) A firm that can produce at lower average costs than two or more firms.
3) A monopoly on the agricultural market.
4) A monopoly that was created without government intervention.

9. Consider a perfectly competitive market where all firms have constant and equal average cost (a *constant cost industry*). How will an increase in demand affect the long run equilibrium price on such a market?

1) Price will increase   **2)** The price will remain constant
3) The price will decrease   4) Unclear

10. You are going to buy a laptop for 1,000 USD. You can either withdraw this money from your bank account (it pays 10% interest yearly) or do it using one of the following credit schemes. Pick the scheme in which you will spend the most amount of money overall.

1) Paying directly from you bank account.
2) Credit at 0.1% compound interest per day, the only payment is at the end of the year.
3) Credit at 12% interest rate per year, the only payment is at the end of the year.
4) Credit at 0.5% compound interest per month, the only payment is at the end of the year.

11. A perfectly competitive market has 100 firms, each of which has constant $MC = 10$. The demand function is given by $Q = 100 - P$. How much will the market price increase if all firms create a cartel and maximize joint profit?

1) By 15   2) By 35   **3)** By 45   4) By 50

12. Which of the following happened at the beginning on the 21st century?

1) The Great Depression   **2)** The Great Recession
3) The First Industrial Revolution   4) Collapse of the gold standard

13. Firm S is a monopolist on the market for space tourism. The demand for its service is discrete: consumers are eager to pay 12M USD for the first trip, 11M USD for the second trip, etc., up to 1M USD for the 12th trip. To organize a trip, the firm must spend 4M USD. What is the difference between the maximum profit that the firm S can obtain with the perfect price discrimination compared to linear pricing?

1) 10M   **2)** 16M   3) 20M   4) None of the above

14. You can often hear the success stories of investors who earn a lot of money at the stock market. At the same time, the stories of many failures remain untold. This can create a wrong impression that investing in the stock market is always profitable. This logical fallacy is called...

1) Survivorship bias   2) Confirmation bias

3) Self-fulfilling prophecy   4) Endowment effect

15. Which of the following best describes the concept of *liquidity trap*?

1) A person cannot withdraw money from his bank account because of the bank's bankruptcy.

2) A firm wants to invest money earned but cannot find projects worth investing in.

3) A government has so much debt that it has to default.

4) The interest rate is so low that people prefer holding cash.

16. Which of the following best describes the concept of *negative trade balance*?

1) A country buys from abroad more than it sells abroad.

2) A country buys from abroad less than it sells abroad.

3) A country's GDP declines for more than three quarters.

4) A country's FDI declines for more than three quarters.

17. Which of the following policies will most likely reduce the Gini coefficient?

1) Progressive income tax.   2) Regressive income tax.

3) Fixed rate income tax.   4) None of the above.

18. Which of the following statements best describes the concept of *network externality*?

1) The service is provided on-line.

2) Producer uses multilevel marketing to attract new customers.

3) The individual utility of using a service increases with the total number of users.

4) The marginal tax rate increases with an increase of income.

19. Which of the following instruments is typically the riskiest one?

1) U.S. Treasury bills

2) Common stocks of a company from S&P 500

3) Deposit in a commercial bank

4) Shares of a startup in Silicon Valley

20. Choose the government policy that will by itself reduce short-run GDP (use the AD-AS model).

1) Increase in the sales tax rate   2) Decrease in the income tax rate

3) Quantitative easing   4) Buying assets on the open market