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. Country A's production possibility frontier is given by the equation $X2 + Y2 = 200$. Country B's production possibility frontier is given by the equation $X + Y = 100$. Choose the correct statement.
   1. **For any given X < 100 same for both countries, country A can produce less of good Y than country B.**
   2. If the countries want to produce 60 units of X together, the maximum possible amount of Y that they can produce together equals approximately 54.
   3. The opportunity cost of producing an additional unit of X is equal between the countries at all points of their PPFs.
   4. If the countries join their production possibilities, their PPF will be given by $X2 + X + Y2 + Y = 300$.

2. Choose the correct statement about monopoly.
   1. A monopoly charges the highest price possible on the market.
   2. For a non-discriminating monopoly, price equals marginal revenue.
   3. Unlike a perfectly competitive firm, the goal of a monopoly is to maximise average profit.
   4. **A monopoly would benefit from the ability to sell additional units at a price lower than the first units.**

3. Choose the correct statement about public goods.
   1. Public goods are efficiently provided by markets.
   2. A public good is a type of a natural monopoly.
   3. A free face mask that you receive from the government is an example of a public good.
   4. **National defence is an example of a public good.**

4. Choose the correct statement about a perfectly competitive market.
   1. Market outcomes are fair, that is, in equilibrium, everyone gets what they deserve.
   2. **The distribution of the total surplus between consumers and producers depends on the relative elasticities of demand and supply.**
   3. Market equilibrium is Pareto-efficient in the presence of externalities.
   4. If the market is monopolized, the quantity produced will rise.

5. The Coase theorem result does NOT apply if…
    1. there is a significant externality between two parties.
    2. the court system vigorously enforces all contracts.
    3. **transaction costs make negotiating difficult.**
    4. both parties understand the externality fully.

6. The plumber labor market of the town X is perfectly competitive, supply is a linear function that passes through the origin. The equilibrium wage is 10$ per hour. After the minimum wage of 12$ per hour was introduced, the quantity supplied of labor increased by 10 workers, the quantity demanded fell by 12 workers. Find the unemployment rate (pick the nearest estimate).
    1. 0%
    2. 17%
    3. **37%**
    4. 46%

7. The demand for good X on a monopoly market is given by $Q = 100 - P$, the cost function is $TC = Q2 + 5$. How will the monopolist's output change if the government introduced the price ceiling at 50?
    1. It will increase by 25.
    2. It will decrease by 25.
    3. **It will remain the same.**
    4. It will increase by 50.

8. How many Nash Equilibria are in this game?

Player 2 → Player 1 ↓	Left	Right
Up	50, 1	10, 0
Down	1, 0	0, 10

    1. 0
    2. **1**
    3. 2
    4. 4

9. Which of the following policies will most likely increase the Gini coefficient? (Consider only the immediate effects)
    1. **A lump-sum tax of 100 dollars for every citizen.**
    2. Fixed subsidy of 10 dollars for every citizen.
    3. Removing the regressive income tax.
    4. Neither of the options above.

10. The Nobel Memorial Prize in Economic Sciences in 2019 was awarded…

1. **for the experimental approach to fighting global poverty.**
2. for having developed and applied dynamic models for the analysis of economic processes.
3. for the work in the theory of financial economics.
4. for studies of climate change.

11. If some investment project has multiple stages, one can often realize it is failing before the final stage. Yet, sometimes instead of abandoning further investment, people continue to invest because they don't want to feel as if they wasted money. This is called…

1. Survivorship bias
2. **Sunk cost fallacy**
3. Self-fulfilling prophecy
4. Endowment effect

12. If two firms compete by choosing quantities (Cournot or Stackelberg models), which of the following is true?

1. **Each of them will want to choose the quantity first (be the leader).**
2. Each of them will want to choose the quantity second (be the follower).
3. Both will prefer a situation when the output is chosen simultaneously.
4. All other answers are wrong.

13. Which of the following best describes the concept of a speculative bubble?

1. **Asset price strongly exceeds its intrinsic value.**
2. Inflation rate exceeds 100% a year.
3. Unemployment rate exceeds 30% .
4. The Central Bank decreases interest rate more than by 50 basis points.

14. Country A's statistical agency has revealed the following data about the country's economy in 2019:

- GDP = 11000
- Private consumption (C) = 5000
- Investment (I) = 3000
- Import (Im) = 1000
- Taxes collected = 500

What can we infer from this information about government spending (G)?

1. G = 0
2. G = 1000
3. G = 3000
4. **Impossible to tell**

15. A bond that matures 3 years from now has a face value of 100 and matures 3 years from now. Estimate the interest rate if the current price of this bond is 91.
1. r ≈ 1%
**2. r ≈ 3%**
3. r ≈ 5%
4. r ≈ 10%

16. In April 2020, the WTI oil futures contract fell below zero. This happened because...
1. Oil was needed less because the world is switching to 'green' sources of energy.
2. Futures trading was temporarily prohibited after multiple substantial frauds were discovered.
3. Demand for oil fell due to the COVID-19 pandemic while supply failed to decrease because OPEC+ failed to sustain the agreement.
4. Major oil producers ran out of oil to extract.

17. Which of the following distincts the COVID-19 economic crisis from all other major crises of the last 100 years?
1. A significant part of the economic decline was caused by government policies intentionally aimed at slowing down the economies.
2. No monetary policies were implemented in response.
3. The crisis started in one country and continued worldwide.
4. The crisis will last longer than a year.

18. The following diagram illustrates the exchange market for euros. Choose the correct statement.
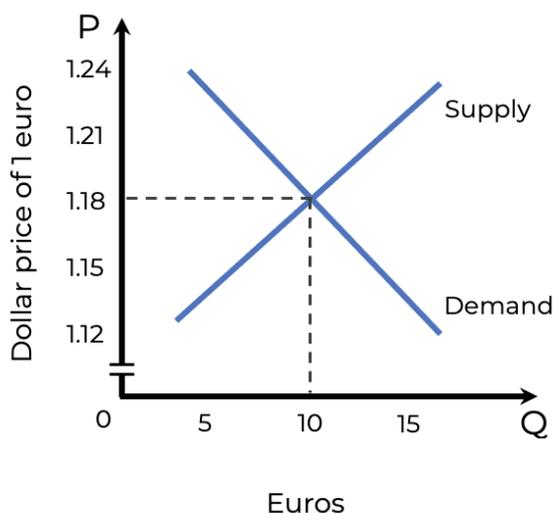
Euros

1. The quantity of euros supplied falls when the dollar depreciates.
2. The rightward shift of the demand curve on this diagram would depreciate the dollar against the euro.
3. The leftward shift of the supply curve might be caused by a rise of real interest rates in the United States.
4. At the price of 1.15 dollars per euro there is an excess demand for dollars.

19. Firm X uses capital and labor to produce its final product. For every unit of a product, 1 unit of capital and 2 units of labor are needed. If labor and capital both cost $2 per unit, what is the marginal cost of producing the 18'th unit of a product?
1. $0
2. $2
3. $3
4. **$6**

20. All prices in the economy have grown by 12% over the last year, Zoe's income has grown by 6%. Pick the right sentence.
1. Zoe's real income has increased by roughly 9%.
2. **Zoe's real income has decreased by roughly 6%.**
3. Zoe's real income remains the same.
4. Zoe's real income has increased by roughly 6%.