



**Economics  
Olympiad**

# **INTERNATIONAL FINAL ROUND EXAMINATION**

Part B

FIRST NAME: \_\_\_\_\_

LAST NAME: \_\_\_\_\_

COUNTRY: \_\_\_\_\_

# INSTRUCTIONS

- Read each question carefully to ensure that you understand it before selecting your answer. Pay close attention to the wording of both the question and the answer choices.
- Use a pen to mark your answers clearly on the answer sheet. Since you are using a pen, please be careful with your selections as you will not be able to erase or change your answers. If you need to change an answer, neatly cross out the incorrect choice and circle your final answer.
- If you find a question unclear or need further clarification, raise your hand, and an EO team member will assist you.
- All cell phones must be turned off and stored away during the test. There are no exceptions to this rule.
- If you wish to appeal any part of the test, you can do so by emailing your appeal to [testmasters@economicsolympiad.org](mailto:testmasters@economicsolympiad.org) after the test has concluded.
- For any questions or assistance during the test, raise your hand, and an EO team member will come to you.
- There is no penalty for incorrect answers, so it is in your best interest to answer every question, even if you are unsure.
- Before submitting your answer sheet, ensure that you have answered all the questions and that your selections are clear and legible.
- This section is designed to be completed within the 90-minute time frame. If you encounter a difficult question, consider moving on and returning to it later if time permits.

## PART B (90 points – 90 minutes)

1) Which scenario best illustrates the principle of opportunity cost?

- a) Investing in one stock instead of another based on its past performance, with the opportunity cost being the potential profit from the chosen stock.
- b) Buying a new car instead of a used one because it has more features, but still saving money compared to buying a luxury car.
- c) Deciding to go out to dinner instead of cooking at home, where the opportunity cost is only the time spent at the restaurant.
- d) Choosing to attend college instead of working full-time and earning a salary represents the opportunity cost of lost income.
- e) Choosing to work overtime for additional pay, where the opportunity cost is the satisfaction of a job well done.

2) In economics, how is an exogenous variable best defined?

- a) An exogenous variable is a variable whose value is determined by other variables within the same economic model.
- b) An exogenous variable is a variable that is determined outside the model and is not affected by the variables within the model.
- c) An exogenous variable is the primary outcome variable whose changes are explained by factors within an economic model.
- d) An exogenous variable adjusts automatically in response to changes in endogenous variables within a model.
- e) An exogenous variable is a variable that can only be determined after the model has reached its equilibrium.

3) Thomas Malthus is particularly known for the idea that:

- a) the division of labor leads to increased prosperity in society
- b) humanity cannot escape poverty because any increase in wealth leads to an increase in population, which subsequently reduces wealth per capita
- c) international trade increases the incomes of all parties involved
- d) in addition to explicit costs, there are also opportunity costs
- e) mathematics is the only possible language for expressing economic laws

4) Which 20th-century economist developed the concept of the natural rate of unemployment and was a leading figure in the monetarist school of thought?

- a) John Maynard Keynes
- b) Robert Solow
- c) Milton Friedman
- d) Paul Samuelson
- e) James Tobin

5) For Jane, bread and butter are perfect complements. The price of bread is 2 and the price of butter is 3. How will Jane spend her money if she has 15 to spend on bread and butter?

- a) She buys 2 units of bread and 2 units of butter.
- b) She buys 0 units of bread and 5 units of butter.
- c) She buys 6 units of bread and 1 units of butter.
- d) She buys 3 units of bread and 3 units of butter.
- e) She buys 5 units of bread and 5 units of butter.

6) Anthony consumes only apple juice and orange juice, which are perfect substitutes for him. One bottle of apple juice costs 80 and one bottle of orange juice costs 120. Which of the following combinations of apple juice and orange juice maximizes Anthony's utility? He wants to spend 720.

- a) no apple juice and 6 bottles of orange juice
- b) no orange juice and no apple juice
- c) 4 bottles of apple juice and 3 bottles of orange juice
- d) 9 bottles of apple juice and 6 bottles of orange juice
- e) 9 bottles of apple juice and no orange juice

7) Mr. Newton increased the price of his apples for the month of June, but the quantity of apples sold did not decrease. His friend Joe, who is an economist, correctly explains to him that although a higher price typically reduces quantity sold, this effect was fully offset in June by a shift in the demand for apples due to:

- a) an increase in the price of Mr. Smith's pears
- b) an increase in the value added tax on fuel
- c) a poor apple harvest in Argentina
- d) a decrease in consumers' income
- e) a decrease in the popularity of apple-based products

8) Which of the following is true about a risk averse individual?

- a) A risk averse individual's utility is decreasing when his or her wealth is increasing.
- b) A risk averse individual would accept a fair bet.
- c) A risk averse individual's maximum insurance is lower than fair insurance.
- d) A risk averse individual is not willing to diversify his or her portfolio.
- e) A risk averse individual would accept fair insurance.

9) The law of diminishing returns states that:

- a) if other inputs are fixed, the marginal product of the variable input must eventually decline.
- b) if you double the inputs, the output will less than double.
- c) if other inputs are fixed, the marginal product of the variable input must be negative.
- d) if the firm grows beyond a certain size, the management costs will start decreasing.
- e) as the economy develops, the returns on investment must increase

10) Which of the following statements best describes the concept of sunk costs?

- a) Sunk costs are future costs that must be considered when making economic decisions.
- b) Sunk costs are costs that have already been incurred and cannot be recovered, and therefore should not influence current decision-making.
- c) Sunk costs are the total costs that vary with the level of output produced.
- d) Sunk costs are recoverable costs that should always be considered when evaluating new projects.
- e) Sunk costs are the opportunity costs associated with choosing one alternative over another.

11) When Mrs. Smith's company pays wages to its workers, it is an example of:

- a) fixed cost
- b) loss
- c) profit
- d) tax
- e) variable cost

12) The supply function is

- a) decreasing in price because greater volume of goods on the market means lower prices
- b) decreasing in price because greater volume of production increases the company's total costs, so to produce more it must be motivated by a higher price
- c) increasing in price because greater volume of goods on the market means lower prices
- d) increasing in price because greater volume of production increases the company's average fixed costs, so to produce more it must be motivated by a higher price
- e) increasing in price because greater volume of production increases the company's marginal costs, so to produce more it must be motivated by a higher price

13) Mrs. Baker was renting out her flat for 80,000 per year. Now she has decided to work in the flat as an accountant. Her revenues are 200,000 per year and her costs for energy, water, paper and software are 160,000 per year. We can now say that Mrs. Baker is achieving:

- a) accounting loss of 40,000
- b) accounting profit of 200,000
- c) economic loss of 40,000
- d) economic loss of 160,000
- e) economic profit of 40,000

14) The ultimate aim of a firm in the basic model is

- a) to maximize the output.
- b) to minimize the total costs.
- c) none of the aims proposed in here.
- d) to maximize the difference between total revenues and total costs.
- e) to maximize the total revenue.

15) A firm in perfect competition maximizes profit at quantity  $Q^*$ . When it achieves zero economic profit, it is clear that at point  $Q^*$ :

- a) its marginal costs are lower than average costs
- b) its marginal costs are equal to average costs
- c) its marginal costs are higher than average costs
- d) the price is higher than marginal costs
- e) the price is lower than average costs

16) Michael, Paul, and Thomas want to buy fresh melons at the market, which are being sold by Martha, Pauline, Christina, and Karen. Michael is willing to pay (at most) 10 for one melon, Paul 8, and Thomas only 4. Martha is willing to sell it for (at least) 2, Pauline for 3, Christina for 5, and Karen for 7. They all meet in one place at the market, where a market price is established. What will be the equilibrium price in the market (outliers not considered)?

- a) Between 2 and 3
- b) Between 3 and 4
- c) Between 4 and 5
- d) Between 5 and 7
- e) Between 8 and 10

17) If demand facing the firm is inelastic a rise in the price will cause total revenues

- a) to fall.
- b) to rise.
- c) to stay unchanged.
- d) cannot be determined.
- e) to fall in the long-run



18) A monopoly maximizes profit at quantity  $Q^*$ . When it achieves positive economic profit, it is clear that at point  $Q^*$ :

- a) total revenues are lower than total costs
- b) variable costs are greater than total revenues
- c) the price is equal to average costs
- d) the price is lower than marginal costs
- e) the price is greater than average costs

19) If a worker experiences a wage decrease and the income effect is stronger than the substitution effect, how will the worker likely respond in terms of labor supply?

- a) The worker will choose to work more hours.
- b) The worker will choose to work fewer hours.
- c) The worker will keep their working hours the same, as the wage decrease does not affect their preference for leisure.
- d) The worker will choose to spend more time on leisure activities since working additional hours would not significantly increase their income.
- e) The worker will stop working altogether, as the decreased wage no longer justifies the effort of working.

20) Lending is more likely to occur when

- a) the present income of the consumer is greater than future income
- b) the present income of the consumer is lower than future income
- c) the present income of the consumer is equal to future income
- d) the present income is zero
- e) the interest rate is zero

21) Which of the following best illustrates the concept of moral hazard?

- a) A central bank raises interest rates to control inflation.
- b) A firm increases its prices in response to rising demand, maximizing its profits.
- c) A government implements a tax on carbon emissions to discourage environmental pollution.
- d) An insurance company observes an increase in risky behavior among its clients after providing them with health insurance coverage.
- e) Consumers decide to save more money as a response to an economic recession.

22) Which of the following scenarios is the most appropriate illustration of adverse selection?

- a) A company raises the prices of its products to increase revenue, but experiences a decrease in sales volume as a result.
- b) A consumer decides to buy a used car based on its lower price.
- c) A government imposes higher taxes on luxury goods, leading to a decrease in their consumption.
- d) A health insurance company faces a disproportionate number of high-risk clients because low-risk individuals opt not to purchase insurance.
- e) An investor chooses to invest in government bonds over stocks to avoid market volatility.

23) Which of these scenarios is an example of a positive externality?

- a) A company implements a strict policy against workplace harassment, improving its internal work culture.
- b) A consumer decides to exclusively shop at high-end stores, elevating their personal status and lifestyle.

- c) A government increases tariffs on imported goods, encouraging consumers to buy domestically produced items.
- d) A homeowner installs solar panels on their property, contributing to reduced energy consumption and benefiting the environment.
- e) An investor focuses on short-term trading to maximize their personal financial gains.

24) John, Jack, and Jim organized a party and now they are arguing about the music they should be playing. John prefers The Rolling Stones over The Beatles and hates Pink Floyd. Jack prefers Pink Floyd over The Rolling Stones and hates The Beatles. Jim prefers The Beatles over Pink Floyd and hates The Rolling Stones. At first blush, it seems that they will not be able to agree, as every band is ranked first, second, and third in the guys' preferences. John is cunning, however, and knows Condorcet's Paradox and Arrow's Theorem about social preference ordering, and proposes a voting procedure that will ensure that his beloved The Rolling Stones win. What is this procedure?

- a) First, he holds a vote on Pink Floyd vs. The Rolling Stones, and then The Beatles vs. Pink Floyd
- b) First, he holds a vote on The Beatles vs. The Rolling Stones, and then The Rolling Stones vs. Pink Floyd
- c) First, he holds a vote on The Beatles vs. Pink Floyd, and then The Rolling Stones vs. The Beatles
- d) John stands no chance to find a voting procedure to ensure that his favorite band wins
- e) He holds a vote on all three options at the same time

25) Public goods in economic theory exhibit non-rivalry in consumption and non-excludability from consumption. The example closest to this ideal is:

- a) building a new public library
- b) city parks
- c) street lighting
- d) public healthcare system
- e) community swimming pool

26) In a fairy tale land, the following production structure exists: Lord Farquaad grows wheat in his fields and sells it to the miller Mac for 200 gold coins. Miller Mac then sells his flour to Chancellor Cedric for 500 gold coins, and Chancellor Cedric finally supplies baked goods to the market from his bakeries for 1400 gold coins. The GDP of this principality will be:

- a) 700
- b) 1400
- c) 1600
- d) 1900
- e) 2100

27) Because pollution is a byproduct of many production processes, GDP accountants should adjust GDP \_\_\_\_\_ but do not, causing GDP to \_\_\_\_\_ economic welfare. The blanks are best filled with

- a) Downwards; understate
- b) Downwards; overstate
- c) Forwards; expect
- d) Upwards; overstate

e) Upwards; understate

28) The acceleration of technological progress will, in the long run, result in:

- a) higher GDP per capita growth, lower real wage growth, and higher interest rates.
- b) higher GDP per capita growth, higher real wage growth, and higher interest rates.
- c) higher GDP per capita growth, lower real wage growth, and lower interest rates.
- d) lower GDP per capita growth, higher real wage growth, and higher interest rates.
- e) lower GDP per capita growth, higher real wage growth, and lower interest rates.

29) Which of the following factors is most likely to boost the economy in the short run?

- a) An increase in government spending.
- b) A decrease in consumer confidence.
- c) An increase in interest rates.
- d) A decrease in the money supply.
- e) An increase in the unemployment rate.

30) Which of the following best describes the relationship depicted by the Phillips Curve in macroeconomics?

- a) The Phillips Curve demonstrates that reducing inflation has no effect on unemployment rates in the short run.
- b) The Phillips Curve indicates that high inflation is always accompanied by high unemployment.
- c) The Phillips Curve implies that inflation and unemployment are unrelated in both the short and long run.

d) The Phillips Curve shows a direct relationship between unemployment and inflation, with both increasing together.

e) The Phillips Curve suggests an inverse relationship between unemployment and inflation in the short run.

31) If the central bank buys bonds from the commercial banks:

a) it decreases the government debt

b) it decreases the monetary base

c) it increases the demand deposits

d) it increases the government debt

e) it increases the monetary base

32) The money multiplier might be one if:

a) the reserve to deposit ratio is 0%

b) the reserve to deposit ratio is 100%

c) the reserve to deposit ratio is 50%

d) the velocity of circulation of money is constant

e) there is no cash in the economy

33) If the growth rate of the nominal money supply is 4%, the growth rate of the real demand for money is 3%, and the nominal interest rate is 5%, then according to the theory of money, the real interest rate in the long run is expected to be

- a) 0%
- b) 1%
- c) 2%
- d) 3%
- e) 4%

34) Which of the following best describes cyclical unemployment?

- a) Cyclical unemployment is the result of individuals voluntarily leaving their jobs to search for new opportunities.
- b) Cyclical unemployment is caused by changes in technology that make certain jobs obsolete.
- c) Cyclical unemployment occurs due to fluctuations in the business cycle, typically rising during recessions and falling during expansions.
- d) Cyclical unemployment occurs when workers lack the skills required for available jobs.
- e) Cyclical unemployment is a permanent feature of the economy, unaffected by economic booms or downturns.

35) Chef Parker is not only excellent at preparing meals, but also a great gardener. He can cook a delicious meal in 2 hours and is able to mow the garden in 6 hours. His neighbour Johnson is less talented in both activities. He takes 8 hours to cook an equally delicious meal and also 8 hours to mow the garden. Is it advantageous for these two to engage in an economic exchange if their working time is 16 hours per day?

a) No, Parker has no reason to trade with Mr. Johnson. He will allocate his 16 hours in such a way that he has his garden mowed and cooks 5 delicious meals.

b) Yes, because if Parker specializes entirely in cooking and Johnson in mowing, Parker will cook 8 meals and give 2 to Johnson. Johnson, on the other hand, will mow both gardens.

c) Yes, because if Parker specializes entirely in mowing and Johnson in cooking, Johnson will cook 8 meals and give 2 to Parker. Parker, on the other hand, will mow both gardens.

d) No, because if Parker specializes entirely in cooking and Johnson in mowing, Parker will cook 8 meals and give 2 to Johnson. Johnson, on the other hand, will mow both gardens. And this is disadvantageous.

e) No, because if Parker specializes entirely in mowing and Johnson in cooking, Johnson will cook 8 meals and give 2 to Parker. Johnson, on the other hand, will mow both gardens. And this is disadvantageous.

36) When the central bank in a small open economy lowers the interest rate, in the short term it can be expected that:

a) aggregate consumption will decrease

b) investments will decrease

c) the domestic currency will appreciate, and net exports will decrease

d) the domestic currency will depreciate, and net exports will increase

e) the domestic currency will depreciate, and net exports will decrease



37) When the government in a large open economy increases its spending, it can be expected that:

- a) the interest rate will fall, the domestic currency will depreciate, and net exports will decrease
- b) the interest rate will fall, the domestic currency will appreciate, and net exports will decrease
- c) the interest rate will rise, the domestic currency will depreciate, and net exports will decrease
- d) the interest rate will rise, the domestic currency will appreciate, and net exports will increase
- e) the interest rate will rise, the domestic currency will appreciate, and net exports will decrease

38) By what percentage has global automobile production increased over the past 50 years?

- a) 50%
- b) 100%
- c) 200%
- d) 300%
- e) 400%

39) What is the relationship between a country's economic wealth and its population's health outcomes?

- a) Wealthier nations often have worse health outcomes due to higher stress levels.
- b) Generally, health outcomes improve as a country becomes wealthier.
- c) There is no significant link between wealth and health outcomes.
- d) Health outcomes worsen as a country becomes wealthier because of lifestyle-related diseases.
- e) Only the wealthiest nations see improvements in health outcomes.

40) Which of the following best explains the economic impact of sustained high inflation on a nation's economy?

- a) High inflation generally boosts purchasing power for consumers.
- b) Sustained inflation erodes the value of money, leading to decreased savings and investment.
- c) High inflation stimulates economic growth by encouraging more consumer spending.
- d) Inflation has minimal effect on the economy as long as wages rise at the same pace.
- e) Sustained inflation typically reduces the unemployment rate without any adverse effects.

41) “What is the typical relationship between a country’s economic growth and its average life expectancy?”

- a) Life expectancy decreases as economic growth accelerates due to environmental degradation.
- b) Life expectancy remains static despite economic growth, as wealth distribution may not be even.
- c) Life expectancy generally rises with economic growth.
- d) Economic growth has no effect on life expectancy because healthcare improvements are unrelated to economic factors.
- e) Only developed nations experience a rise in life expectancy due to economic growth.

42) Which of the following offers has the lowest interest rate (for example, on an annual basis)?

- a) The bank offers you to borrow 40,000 and repay 12,000 each year for five years. At the end, the debt will be fully repaid.
- b) The bank offers you to borrow 40,000 and repay 1,500 each month for five years. At the end, the debt will be fully repaid.
- c) The bank offers you to borrow 40,000 with an annual interest rate of 30%.
- d) The bank offers you to borrow 40,000 with a monthly interest rate of 2%.
- e) The bank offers you to borrow 40,000 with a daily interest rate of 1%.

43) The return of the pension fund was 26% in 2023, -18% in 2022, 29% in 2021, and 18% in 2020. Based on the information provided, we can say that the return of the pension fund in 2024 compared to the previous year 2023 will be:

- a) Higher
- b) Lower
- c) The same
- d) It cannot be determined based on the given information
- e) None of the above options is correct.

44) How do stock market indices like the S&P 500 relate to the overall health of an economy?

- a) A rising index typically signals investor confidence and economic growth, whereas a falling index may suggest economic challenges.
- b) Stock market indices are largely unconnected to the real economy, reflecting only short-term speculative activity.
- c) An increasing stock market index always leads to a drop in unemployment.
- d) Stock market performance is determined exclusively by government policies.
- e) A declining stock market index invariably indicates an impending recession.

45) If you receive a 20% interest rate from the bank over a year and prices increase by 10% during the same year, what is the real interest rate according to the precise definition?

- a) Exactly 10%
- b) Less than 10%, but more than 5%
- c) More than 10%, but less than 20%
- d) Less than 5%
- e) More than 20%