



**Economics
Olympiad**

INTERNATIONAL FINAL ROUND EXAMINATION

Part A

FIRST NAME: _____

LAST NAME: _____

COUNTRY: _____

INSTRUCTIONS

- This section consists of short answer and problem-solving questions. Each question is worth 10 or 15 points.
- Read each question carefully before you begin your response. Ensure that you fully understand what is being asked before starting your answer.
- For questions that involve calculations, it is important to show all your work clearly. Partial credit may be awarded for correct methods, even if the final answer is incorrect.
- Use graphs and diagrams where applicable to illustrate your answers. Label all axes and curves clearly, and explain the significance of any shifts or changes depicted.
- Provide clear explanations and justifications for your answers. When asked to discuss or analyze, support your arguments with relevant economic theories, models, or data.
- Allocate your time wisely. Some questions may require more time to answer fully, so plan accordingly to ensure you can attempt all questions in this section.
- Write legibly and ensure your answers are concise and to the point. Focus on the key aspects of the question and avoid unnecessary information.
- If time permits, review your answers before moving on to the next section. This will give you an opportunity to correct any errors or add any additional points.
- If you wish to appeal any part of the test, you can do so by completing the appropriate form located at our website: <https://economicsolympiad.org/appeals> after the test has concluded.
- The last 5 pages of this test booklet have been provided for your calculations, practice, or any other notes you may need to make during the exam. We suggest labeling these pages as “Work Pages” or “Scratch Pages”. Please note that any work or answers written on these pages will not be graded unless specifically directed to do so.

Part A: 100 points - 90 minutes - 10 Questions

Section 1 (30 points)

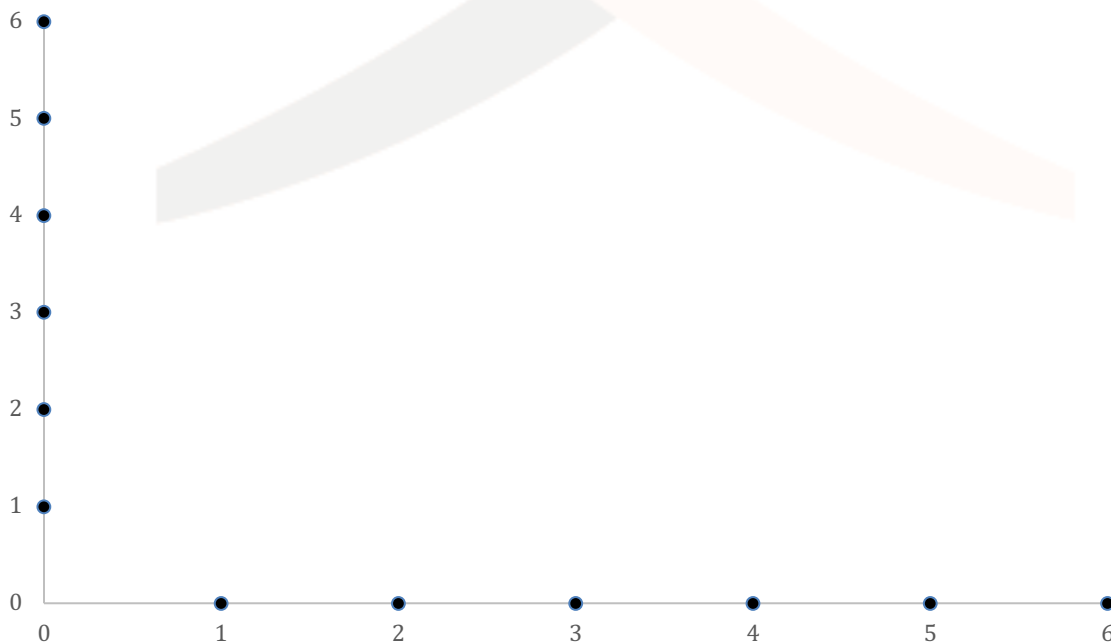
(remember to fully label your graphs)

- A. Joe, a resident of the country of Asabia has the indifference combinations in regard to sugary drinks and fresh fruit juices noted in Table 1 below. **(10 points)**

Table 1

	Sugary drinks in 250ml bottles	Fresh fruit juices in 250ml bottles
A	1	6
B	2	3
C	3	2
D	4	1

Using the data in Table 1 create an indifference curve for Joe showing the combinations of Sugary drinks and Fresh fruit juices that lead to equal satisfaction. Clearly indicate the four indifference combinations A,B,C,D in your graph.



Section 1 (30 points)

(remember to fully label your graphs)

- B. The country of Asabia, is facing increased percentages of obesity and diabetes. Due to this, they have decided to place a per-unit tax on the producers of sugary drinks. The demand for sugary drinks has been found to be highly inelastic. Create a graph for the sugary drinks market which shows:
- the effects of the per-unit tax on producers of sugary drinks
 - indicate the change in the price paid by consumers (new equilibrium price) and the price received by producers after the tax
 - show the change in quantity demanded
 - show the potential tax incidence for consumers and producers taking into account as noted above that the demand for sugary drinks is inelastic. **(10 points)**

Section 1 (30 points)

(remember to fully label your graphs)

- C. The government of Asabia is considering using minimum price instead of a per unit tax to reduce the consumption of sugary drinks. In the space below, discuss the positives and negatives of the government intervening through per unit tax or through minimum price in the market for sugary drinks. **(10 points)**



Section II (40 points)

(remember to fully label your graphs)

- A. The producers of the country of Asabia are faced with a sudden significant rise in the cost of energy. Using an aggregate demand -aggregate supply model (AD/AS) show the impact of the rise of energy on the economy. Show any potential changes in national income and any inflationary or deflationary pressures caused by the rise in the cost of energy. **(10 points)**



Section II (40 points)

(remember to fully label your graphs)

- B. Let ´s assume that Asabia has fallen into recession and that this has led to a rise in income inequality. Using a Lorenz curve, show the rise in income inequality. **(10 points)**



Section II (40 points)

(remember to fully label your graphs)

- C. Due to this recession there has been a sudden increase in unemployment in Asabia.
Using a labor diagram (Supply and Demand for Labor) show how the recession has led to this increase in unemployment. **(10 points)**



Section II (40 points)

(remember to fully label your graphs)

- D. What type of unemployment is described in question C; Propose two policies through which Asabia can reduce this unemployment. Critically evaluate the positives and negatives of each one. Explain your answer in detail. **(10 points)**



Section C (30 points)

- A. Shelly is considering two options. The first option is to leave \$55 in her bank account which pays an interest rate of 4%. The second option is to buy a share of stock in XY Corporation for \$55. After the first, second and third years, it will pay a dividend of \$2.5. She expects to sell the stock after three years for \$60. Using net present value calculate whether Shelly should buy the stock in XY or keep her money in the bank. Assume that the discount rate is 4%. **(15 points)**



Section C (30 points)

- B. If the dividends were \$1.5 per stock after the first, second and third years would that change your response; Assume that the discount rate is 4%. **(15 points)**











