



SUBJECT:	Economics
PAPER NUMBER:	I
DATE:	16 th May 2022
TIME:	9:00 a.m. to 12:05 p.m.

Answer **FOUR** questions. **TWO** from **each** Section. All questions carry equal marks. This paper carries 60% of the global mark.

SECTION A

Answer TWO questions from this section.

1. a) Explain the concepts depicted by the production possibility curve. Make use of diagrams and provide **ONE** example. (8)
- b) How do household income and technological change affect the market price? (10)
- c) Illustrate the effect of a cost reducing innovation on consumer surplus. (7)

(Total: 25 marks)

2. a) Discuss **THREE** likely effects of an imposition of a minimum price of a good by the government. Support your answer by presenting the relevant diagram. (7)
- b) How might a market research analyst use the **THREE** measures of elasticity in their work? (9)
- c) How would an increase in the price of a good with a price elasticity of demand less than one affect total revenue for a firm? Explain by referring to **ONE** example. (9)

(Total: 25 marks)

3. a) What do you understand by the "law of diminishing marginal utility"? (5)
- b) "The equi-marginal principle is based on the law of diminishing marginal utility". Is this statement true or false? Provide an explanation and **ONE** example for your answer. (10)
- c) Discuss the following statement: "For years economists and others were perplexed that the price of diamonds is far greater than the price of water, even though water is far more valuable than diamonds". (10)

(Total: 25 marks)

4. a) What is understood by the "law of diminishing marginal product"? (5)
- b) What is the relevance of this law to the costs of production in the short run? (10)
- c) Explain why the long run envelope cost curve is defined as the lower frontier of all short-run cost curves. (10)

(Total: 25 marks)

5. a) How are profits maximised in the long run in a perfectly competitive market. (8)
- b) Explain the concept of profit maximisation in the case of a monopoly. (8)
- c) Explain the concept of deadweight loss by referring to consumer welfare. (9)

(Total: 25 marks)

6. a) What is imperfect competition? (7)
- b) Compare monopolistic competition to perfect competition and monopoly. (6)
- c) Are the below statements true or false? Substantiate your answers with an explanation.
- i) "Oligopolistic firms can be both in a kinked demand curve situation and also engage in price leadership". (6)
- ii) "The distinctive feature of an oligopoly market is interdependence". (6)

(Total: 25 marks)

SECTION B

Answer TWO questions from this section.

7. a) Distinguish between real and nominal GDP. Explain what would need to occur for nominal GDP growth to be positive and real GDP growth to be negative in any given year, by referring to **ONE** numerical example. (7)
- b) Discuss **THREE** reasons why the GDP may **not** be a good indicator of the actual level of welfare in a country? (9)
- c) Describe **THREE** determinants of long run economic growth and for **each** determinant provide an example of a policy that can be implemented by policy makers in order to accelerate the process of long run economic growth. (9)

(Total: 25 marks)

8. a) Define the Keynesian consumption function. Describe, and illustrate by means of an appropriate diagram, how an increase in household wealth would affect the consumption function. (7)
- b) How would an increase in investment affect the level of national income? Explain with reference to the multiplier principle. Would this effect be larger or smaller if the marginal propensity to consume were to increase? (9)
- c) Explain, by making use of an appropriate diagram, what would need to occur to output for an economy to be generating a deflationary gap. (9)

(Total: 25 marks)

9. a) Describe **THREE** factors which influence the demand for money. (7)
- b) Explain the process of money creation. What would be the impact of an increase in the reserve ratio on the overall supply of money? (9)
- c) Discuss, and illustrate by means of an appropriate diagram, how the Central Bank can implement open market operations in order to lower the equilibrium interest rate in the economy. (9)

(Total: 25 marks)

10. a) Distinguish between inflation, deflation and hyperinflation. Which Consumer Price Index would you assess if you wanted to study the behaviour of inflation across European countries? (7)
- b) Distinguish, using appropriate diagrams, between demand-pull and cost-push inflation. The inflationary effect caused by an increase in the price of utility tariffs would fall under which of these two causes of inflation? (9)
- c) Discuss **THREE** types of unemployment and provide **ONE** example of a policy that can be used to reduce **each** type. (9)

(Total: 25 marks)

11. a) Explain the difference between automatic (automatic fiscal stabilisers) and discretionary fiscal policy. Provide **ONE** factor which could limit the effectiveness of **each** type of fiscal policy. (8)
- b) Explain the difference between a government budget deficit and the level of national debt. Provide **ONE** example of a situation in which running a government budget deficit may be acceptable. (9)
- c) Explain, by also making use of an appropriate diagram, the impact on the economy of a supply-side tax reduction. Provide **TWO** further examples of supply-side policies. (8)

(Total: 25 marks)

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12. a) Explain, by making use of examples, the difference between the law of absolute advantage and the law of comparative advantage. (8)
- b) What is balance of payments? Identify the **THREE** components of the balance of payments and define balance of payments deficit. (8)
- c) Describe **THREE** methods that can be implemented by the government in order to restrict trade and provide **ONE** disadvantage of trade barriers. (9)

(Total: 25 marks)



SUBJECT: **Economics**
 PAPER NUMBER: II
 DATE: 17th May 2022
 TIME: 9:00 a.m. to 12:05 p.m.

Answer **THREE** questions, at least **ONE** from Section A and **ONE** from Section B. All questions carry equal marks. This paper carries 40% of the global mark.

SECTION A

1. Table 1 below presents the market demand and supply schedules for commodity Y over a range of prices.

Table 1

Price (Euros)	Demand (units/year)	Supply (units/year)
90	6000	3000
135	5400	3600
180	4800	4200
225	4200	4800
270	3600	5400
315	3000	6000

- a) Plot the demand curve and the supply curve. Find the market equilibrium price and equilibrium quantity. (8)
- b) Calculate the total spending on the commodity at **each** price shown. (4)
- c) Calculate and interpret the price elasticity of demand at **each** output level. (7)
- d) Why is knowledge of the own-price elasticity of demand of a product relevant for a company's pricing strategy? (5)
- e) Suppose that a flat tax of €30 per unit is imposed on the supplier. Use the demand curve and the supply curve plotted in part (a) to show the new market equilibrium price and equilibrium quantity. What happens to the equilibrium quantity and price following the imposition of the tax? (9)

(Total: 33 marks)

2. Consider Table 2. Q represents a firm's quantity of sales, P represents the price per unit, and AC represents the average cost per unit.

Table 2

Q	P	AC
1	13	16.1
2	13	13.9
3	13	12.0
4	13	10.5
5	13	10.0
6	13	10.5
7	13	11.8
8	13	13.9

- a) Calculate the total cost (TC), the total revenue (TR), the marginal cost (MC) and the marginal revenue (MR) of the firm for **all** levels of output. (8)
- b) Plot the Marginal Cost and the Marginal Revenue curves. (5)
- c) Calculate the level of output that maximises the total profit (TP). Show your calculations and round to one decimal point. (4)
- d) What type of market structure best describes the market in which the firm operates? Explain your reasoning. (6)
- e) Is the profit maximising level of output found in (c) above, allocative and productive efficient? Support your answer by plotting the relevant curves on the graph paper provided. (10)

(Total: 33 marks)

3. A businessperson manufacturing tyres is considering venturing into a new market. To decide on the number of workers it needs to employ to adequately supply this market, the businessperson requested your services. Based on preliminary market data, you are supplied with the following output and cost figures:

Number of Workers	Total Labour Costs in Euro per hour per employee	Total Output per hour
1	6	3
2	9	27
3	12	48
4	15	66
5	18	81
6	21	93
7	24	102
8	27	108

Assume that **each** unit of output sells at €3 per unit and that **each** employee works a total of 8 hours per day, 5 days a week.

- a) Construct a table showing the Total Cost of Labour per week (TCL), Marginal Cost of Labour per week (MCL), the Total Revenue Product per week (TRPL), and the Marginal Revenue Product per week (MRPL). (10)
- b) How many workers will the firm employ in order to maximise profits? What is the total wage bill at this level of employment? How much revenue will the firm earn at this level of employment? (9)
- c) Suppose that the businessperson is also considering investing in new training opportunities for its employees. If the businessperson decides to go down this route, the firm will face the following additional variable costs per employee in Euro:

Number of Workers	Variable costs per employee per week
1	356
2	336
3	318
4	302
5	288
6	276
7	266
8	258

However, the investment is also expected to increase the total output per hour by 15%. Consider the scenario in which the businessperson undertakes the investment. Calculate the number of workers the businessperson will employ to maximise profits. (9)

- d) Based on your answers to parts (b) and (c), explain whether the businessperson should undertake the investment. (5)

(Total: 33 marks)

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SECTION B

4. In its autumn forecasts, the European Commission forecasted real GDP growth to reach 5.0% in 2021, mainly on the back of domestic consumption and investment. Tourism is expected to gain some ground but to remain below the 2019 level. Government expenditure is expected to continue supporting the Maltese economy, including via public investment. Following the unfolding recovery in the world economy, the contribution of the external side of the economy and investment to economic growth are expected to increase.

Economic growth is expected to reach 6.2% in 2022 on the back of a positive contribution from net exports, counting on further relaxation of international travel requirements and a strong recovery in tourism. In the second half of 2022, the Maltese economy is expected to return to pre-crisis levels. Subsequently, growth is forecast to decrease to 4.8% in 2023.

Reference: European Commission (2021), Autumn 2021 Economic Forecast for Malta.

- a) Why is the European Commission interested in developments in the Maltese economy? (6)
- b) What are the components of the typical GDP formula? Define **each** component. (5)
- c) The European Commission noted that real GDP growth in 2021 is primarily supported by domestic consumption and investment, while in 2022 forecasted economic growth is mainly on the back of a positive contribution from net exports.
- i. Explain what domestic consumption is? (4)
 - ii. Could net exports contribute negatively? Explain your answer. (5)
- d) Suppose that interest rates remain low over the coming months. What effects could this have on the Maltese economy? (7)
- e) Describe the real GDP growth forecasts for the Maltese economy for 2021, 2022 and 2023. Given that economic growth in the Maltese economy is expected to reach 6.2% in 2022 and then decrease to 4.8% in 2023, does this mean that the overall real GDP level in 2023 is going to be less than that in 2022? Explain your answer. (6)

(Total: 33 marks)

5. According to the National Statistics Office (NSO), in December 2021, the annual rate of inflation as measured by the Harmonised Index of Consumer Prices (HICP) was 2.6 per cent, up from 2.4 per cent in November 2021.

The largest upward impact on annual inflation was measured in the Food and non-alcoholic beverages index while the largest downward impact was recorded in the Communications index.

The twelve-month moving average rate for December 2021 stood at 0.7 per cent.

Reference: National Statistics Office (2022), Harmonised Index of Consumer Prices: December 2021.

- a) The National Statistics Office produces two measures of inflation: the Harmonised Index of Consumer Prices (HICP) and the Retail Price Index (RPI). Explain the main differences between the **TWO** measures of inflation. (6)
- b) According to the National Statistics Office, in December 2021, the annual rate of inflation measured by the HICP stood at 2.6 per cent while the twelve-month moving average rate was 0.7 per cent. What is the difference between the **TWO** measures? (6)
- c) How does the European Central Bank define price stability? With reference to the inflation rate shown above explain whether Malta's inflation rate is in line with the targets set by the European Central Bank. (8)
- d) Should Malta opt for an inflation target of 0%? Give reasons for your answer. (6)
- e) What could explain the recent hikes in Malta's inflation rate? (7)

(Total: 33 marks)

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6. The Central Bank of Malta publishes a wide range of monetary statistics and indicators, including broad measures of money supply, its components and its counterpart assets. Table 3 below highlights the monetary aggregates according to the December 2021 release:

Table 3

MONETARY AGGREGATES (€ million)	NOV-21	NOV-20
Currency issued	1,451.0	1,348.5
Overnight deposits	18,753.2	16,893.6
Deposits redeemable at notice up to 3 months	263.7	123.5
Deposits with agreed maturity up to 2 years	3,734.5	3,761.0
Marketable instruments	-47.3	-55.5

Reference: Central Bank of Malta (December 29, 2021).

- a. Compute the value of Broad Money (M3) for November 2021 and November 2020 and explain the main contributors to the change in Broad Money (M3) between the **TWO** periods. (9)
- b. Define overnight deposits. (4)
- c. What is the theoretical relationship between money supply and economic growth? (6)
- d. The world is currently experiencing a low interest rate environment. What are the effects of low interest rates on economic growth? (6)
- e. What is the role of the Malta Financial Services Authority? (8)

(Total: 33 marks)