



SUBJECT:	Economics
PAPER NUMBER:	I
DATE:	29 th August 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) How does the production possibility curve illustrate the microeconomic issues of choice and opportunity cost? (5)
- b) Explain using appropriate diagrams the effect on:
 - i) the demand curve for pedelecs (electric bicycles) following the provision of a grant by the Government on the purchase price to customers; and (5)
 - ii) the supply curve of pedelecs following technological improvements in pedelec production plants. (5)
- c) Explain and demonstrate graphically:
 - i) the effect of an increase in the price of Adidas sportswear on the equilibrium price and quantity of Nike sportswear (both are substitute brands); and (5)
 - ii) the effect of an increase in the price of paper on the production of books. (5)

(Total: 25 marks)

2. a) Discuss **TWO** likely effects of government imposing (i) a maximum price and (ii) a minimum price. Support your answer using appropriate diagrams and give **ONE** practical example for **each**. (8)
- b) Cross price elasticity of demand between iPhones and iPhone cases is negative. Is this statement true or false? Give an explanation for your answer. (7)
- c) Explain how the total revenue of a firm is affected by an increase in the price where price elasticity of demand is greater than one. Refer to **ONE** example. (10)

(Total: 25 marks)

3. a) Which factors determine a consumer's choice of goods? What is the condition that must be satisfied in equilibrium? (5)
- b) What is the law of diminishing marginal product? (10)
- c) Distinguish between diseconomies of scale and diminishing marginal productivity. (10)

(Total: 25 marks)

4. a) Mention the **SIX** characteristics of perfect competition. (6)
- b) Show by means of a diagram how a perfect competitor maximises profits in the short run. (7)
- c) Show by means of a diagram why supernormal profits, in a situation of perfect competition are, expected to disappear and average costs of production are likely to be at their lowest point, in the long run. What is the significance of such a situation of consumer welfare? (12)

(Total: 25 marks)

5. a) Mention **FIVE** characteristics of a monopoly. (5)
- b) What do you understand by deadweight loss when comparing a perfectly competitive market with a monopoly? (10)
- c) What is price discrimination? Illustrate by means of a diagram(s). Which **THREE** conditions must be present for it to operate? (10)

(Total: 25 marks)

6. a) What is economic profit? (6)
- b) Can companies operating under monopolistic competition make economic profits in the long run? (12)
- c) What is TACIT collusion? Under which market structure does it occur? (7)

(Total: 25 marks)

SECTION B

Answer TWO questions from this section.

7. a) Define GDP and describe the **THREE** different methods that can be used to measure GDP. (8)
- b) What is the likely impact of an increase in export expenditure and investment on national income? Discuss your answer within the context of the circular flow of income for an open economy. (9)
- c) What are the factors affecting long term economic growth of a country? (8)

(Total: 25 marks)

8. a) What does the slope of the consumption function represent? Using an appropriate diagram, discuss the effect of an increase in the level of current market prices on the consumption function. (7)
- b) Describe **THREE** determinants of aggregate investment behaviour. (9)
- c) Define the full-employment level of national income and explain the difference between a deflationary gap and an inflationary gap. (9)

(Total: 25 marks)

9. a) Describe **FOUR** main functions of money. (8)
- b) Describe **THREE** tools the European Central Bank has at its disposal to undertake monetary policy. (8)
- c) Define and explain, by means of appropriate diagrams, the impact of contractionary open market operations, by the Central Bank, on the equilibrium interest rate in the economy. (9)

(Total: 25 marks)

10. a) By making use of an appropriate diagram, explain the impact of a supply side shock, such as an increase in oil prices, on the equilibrium level of prices and output in the economy. (8)
- b) Explain how demand side policies and supply side policies differ in their approach to tackle inflation. Describe **TWO** types of demand side policies and **TWO** types of supply side policies. (8)
- c) Distinguish between Frictional, Structural and Cyclical unemployment. Identify **ONE** policy measure to reduce unemployment in **each** of the above types. (9)

(Total: 25 marks)

11. a) Discuss the role that automatic stabilisers play within the context of the overall management of the national economy. Explain **TWO** factors which could limit the effectiveness of automatic stabilisers. (8)
- b) Explain what is implied by a government budget surplus. In what way does the state of the economy influence the size of the government budget deficit or surplus? (9)
- c) How do merit goods differ from public goods? Why do governments provide merit goods and services? Provide **ONE** example of a merit good or service. (8)

(Total: 25 marks)

Please turn the page.

12. a) What is comparative advantage and provide **ONE** example in the context of an international market. (8)
- b) Describe the main components of the balance of payments, and provide **ONE** reason why it is often regarded as being undesirable for the balance of payments to be in deficit. (8)
- c) Distinguish between tariffs, quotas and export subsidies, and explain **ONE** motive which could provide the incentive for a government to implement import control policies. (9)

(Total: 25 marks)



SUBJECT:	Economics
PAPER NUMBER:	II
DATE:	30 th August 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. The demand and supply for a new electric car is represented by the following equations:

$$Q_D = 55,000 - 2.5P_D + 3.5P_S + 0.5Y$$

$$Q_S = 6000 + 2P_D + 3T$$

Where:

Q_D is quantity demanded;

P_D is the average price of the good itself;

P_S is the average price of a substitute good;

Y is average personal income;

Q_S is quantity supplied;

T is an index of technology.

- a) Assuming that P_S is equal to €15,000, Y is equal to €25,000 and P_D takes a value from €15,000 up to €45,000, plot the demand curve. Does the demand curve conform with the law of demand? Explain your answer. (9)
- b) Calculate and interpret the price elasticity of demand when P_D is equal to (i) €15,000 and (ii) €45,000. Comment about how price elasticity of demand changes with the price level. (6)
- c) Assuming that T takes the value of 500 and P_D takes a value from €15,000 up to €45,000, find the equilibrium price and quantity. (6)
- d) To help the electric cars market, the government is considering either giving producers a subsidy or a tax rebate to consumers who invest in a new electric car. Compare and contrast the market effects of **both** policy measures. (12)

(Total: 33 marks)

2. A carpenter producing child-proof artistic beds faces the following average cost and average revenue table:

Table 1

Output (Beds)	Average Cost (€)	Average Revenue (€)
1	806.4	1500
2	756.0	1470
3	743.4	1440
4	756.0	1410
5	794.1	1380
6	861.6	1350
7	960.0	1320
8	1086.0	1290
9	1233.3	1260
10	1398.6	1230

- a) Calculate the total cost (TC), the total revenue (TR), the marginal cost (MC) and the marginal revenue (MR) for **ALL** levels of output. (8)
- b) Plot the Average Cost (AC) and the Average Revenue (AR) in one graph and the Marginal Revenue (MR) and the Marginal Cost (MC) in a separate graph. (5)
- c) At which level of output should the firm produce to be most profitable? Is this level of output the same as the revenue-maximising level of output? Explain your answer. (6)
- d) Is the profit maximising level of output found in part (c) above, allocative and productive efficient? Explain your answer and plot the relevant curves. (8)
- e) Why does the MC curve cross the AC curve at its lowest point? Is this supported by the above data? (6)

(Total: 33 marks)

3. Table 2 shows the relationship between labour and capital used to produce gaming consoles in a manufacturing firm.

Table 2

Output Units	Labour Units	Capital Units
900	12	120
1440	24	120
3162	36	120
5400	48	120
7878	60	120
10368	72	120
12348	84	120
13824	96	120
14958	108	120
15900	120	120
16599	132	120
17100	144	120
17550	160	120

The price of capital is €3,000 per unit, while the price of labour is €1,875 per unit.

- a) Construct a table showing the average and marginal costs and plot them against output. (6)
- b) Construct a table for the total cost (TC), variable cost (VC) and fixed cost (FC) and plot them against output. (8)
- c) What do you understand by the law of diminishing marginal product? Does the above data conform to the law of diminishing marginal product? Explain your answer using numerical examples. (6)
- d) This firm operates in a perfectly competitive market where the price is €45 per unit of output. How many units of output will the manufacturer produce? What would be the profit in this case? Is this profit likely to be maintained in the long run? Explain your answer. (Round to 0 decimal places) (6)
- e) Suppose that the price of capital decreases by €500 per unit. How do the equilibrium levels of output and profit change? Explain your answer by means of a diagram. (7)

(Total: 33 marks)

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SECTION B

4. After a considerable decline (-8.2%) in 2020, real GDP growth is estimated to have rebounded strongly to 5.9% in 2021. Growth is driven by the strong performance in the first three quarters of the year, as improved public health allowed for the relaxation of restriction measures. Improved business and consumer sentiment, as well as a recovery in tourism supported the economy. Growth is estimated to have been negative in the last quarter of 2021 and to remain muted in the first quarter of 2022, affected by the surge in infections in late 2021, the tightening of restrictions, low tourist numbers, continued disruptions in global value chains and negative effects of price increases in shipping and transport.

In the course of 2022, growth is expected to pick up again as domestic demand recovers, supported also by the implementation of the Recovery and Resilience Plan. Real GDP is forecast to grow by 6.0% in 2022 and 5.0% in 2023. Malta is expected to reach pre-pandemic levels of economic activity around mid-2022.

Reference: European Commission (2022), Winter 2022 Economic forecast for Malta.

- a) Why does the European Commission regularly analyse developments in the Maltese economy? (6)
- b) What is the difference between nominal GDP and real GDP? Explain your answer. (5)
- c) The European Commission noted that real GDP growth in 2022 is expected to pick up again as domestic demand recovers, supported also by the implementation of the Recovery and Resilience Plan.
- i) Is domestic demand the same as GDP? (4)
- ii) The above text refers to the Recovery and Resilience Plan which is an EU-funded financial instrument aimed at boosting economic recovery and strengthening economic resilience of Member States after the pandemic. How would you define 'economic resilience'? (4)
- d) The European Commission highlighted that one factor contributing negatively to economic growth in the last quarter of 2021 and the first quarter of 2022 is the price increases in shipping and transport. Discuss why this is the case. (5)
- e) Identify possible downside risks that could possibly derail the GDP forecasts for Malta in the short-term. Explain your answer. (9)

(Total: 33 marks)

5. According to the National Statistics Office (NSO), in February 2022, the annual rate of inflation as measured by the Harmonised Index of Consumer Prices (HICP) was 4.2 per cent, up from 4.1 per cent in January 2022.

The largest upward impact on annual inflation was measured in the Food and non-alcoholic beverages Index (+1.5 percentage points), while a downward impact was recorded in the Communications Index (-0.06 percentage points).

The twelve-month moving average rate for February 2022 stood at 1.3 per cent.

Reference: National Statistics Office (2022), published on 17 March 2022.

- a) The National Statistics Office produces two measures of inflation, the Harmonised Index of Consumer Prices (HICP) and the Retail Price Index (RPI). Which one is deemed a better measure of domestic inflation and why? (5)
- b) According to the National Statistics Office, in December 2022, the largest upward impact on annual inflation was measured in the Food and non-alcoholic beverages Index. Discuss the possible factors that might have led to price acceleration in the Food and non-alcoholic beverages component. (6)
- c) How does the European Central Bank define price stability? Does the data published by the National Statistics Office suggest that Malta is in line with the price stability definition adopted by the European Central Bank? Explain your reasoning. (8)
- d) In February 2022, the annual rate of inflation in the Euro Area as measured by the HICP was 5.9 per cent. In light of these price accelerations, how likely is it for the European Central Bank to raise interest rates in the short-term? (6)
- e) The Russia-Ukraine conflict is likely to have adverse effects on the inflation rate in Malta. Explain why this international conflict could impact Malta's inflation rate. (8)

(Total: 33 marks)

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6. The following equations represent key economic relationships within a closed economy:

GDP identity: $Y = C + I + G$

Consumption function: $C = A + c(Y - T)$

Tax equation: $T = tY$

Where:

Y = GDP = national income;

C = consumption expenditure;

I = investment expenditure;

A = exogenous consumption expenditure;

G = government expenditure;

c = the marginal propensity to consume;

T = income tax;

t = the marginal tax rate.

- a) Identify the final expenditures and leakages in this model. (5)
- b) Using the above equations, find the equilibrium value of income (Y). (8)
- c) If $c = 0.8$ and $t = 0.2$, what is the value of the income multiplier? Explain the economic meaning of the income multiplier. (8)
- d) If we now assume that the tax rate (t) is equal to 0, would the value of the multiplier coefficient obtained in (c) be the same? Give a reason for your answer? (6)
- e) From the above equations prove that savings is equal to investment. (6)

(Total: 33 marks)