



SUBJECT:	Economics
PAPER NUMBER:	I
DATE:	15 th May 2023
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 why scarcity and choice are the basic problem in economics. (5)
- b. How is price equilibrium achieved and how do market forces work to clear a disequilibrium? (10)
- c. Explain and demonstrate graphically:
 - i. the effect of an increase in the price of beef on the equilibrium price and quantity of chicken, which is a substitute good. (5)
 - ii. the effect of an increase in the price of beef on the equilibrium price and quantity of beef burgers. (5)

(Total: 25 marks)

2. a. Discuss, in economic terms, how a price floor affects the market price for a product. Are there any disadvantages which the consumer may suffer as a consequence of such a minimum price? Support your arguments with the appropriate diagram. (10)
- b. Discuss **FIVE** determinants of the price elasticity of demand. (10)
- c. Cross price elasticity of demand between private car use and public transport is positive. Is this true or false? Explain your reasoning. (5)

(Total: 25 marks)

3. a. An additional unit of consumption of any good will always yield an increase in both total and marginal utility. Discuss this statement in the context of the Law of Diminishing Marginal Utility. (10)
- b. Distinguish between short run and long run in production. (5)
- c. Explain why with increased output a firm's average costs fall in the short run. (10)

(Total: 25 marks)

4. a. Outline **THREE** characteristics underlying perfect competition. (6)
- b. Provide **FOUR** disadvantages related to a monopoly market structure. (8)
- c. Compare the long-run equilibrium of monopoly with that of perfect competition. How do output, costs, price and consumer welfare compare? (11)

(Total: 25 marks)

Please turn the page.

5. a. Explain how firms with market power can earn economic profits in imperfectly competitive markets. (8)
- b. What is interdependence in Oligopoly? (8)
- c. What is a price war? How is this beneficial to consumers and detrimental to firms? (9)

(Total: 25 marks)

6. a. What is economic profit? (5)
- b. What is non-price competition? In what type of markets is it mostly used? Mention **THREE** examples of non-price competition. (10)
- c. Why would economic profits likely to disappear in the long run under monopolistic competition? (10)

(Total: 25 marks)

SECTION B

Answer TWO questions from this section.

7. a. Explain what GDP at factor cost is and distinguish between GDP at factor cost and GDP. Describe **THREE** different methods that can be used to measure GDP. (8)
- b. Is GDP a suitable measure of standard of living? (7)
- c. Outline the likely impact on GDP (positive or negative) in the following situations. In **each** case, explain your reasoning:
- Investment of €10 million by a Maltese aircraft operator, where 95% of the investment is an imported aircraft from Canada;
 - A decline in tourists from the United Kingdom from the prior summer because of a significant depreciation of the pound relative to the euro;
 - Government providing vouchers for people to consume from restaurants following the removal of pandemic restrictions;
 - A decrease in the population from the prior year; and
 - An increase in bank interest rates.

(10)

(Total: 25 marks)

8. a. Distinguish between a pivot and a shift in the consumption function. In your answer, discuss **THREE** factors that can cause the consumption function to shift. (8)
- b. Explain, by referring to the accelerator principle, why investment is generally the most volatile component of aggregate demand expenditure. (8)
- c. Explain, within the context of the income multiplier model, how a contractionary fiscal policy would generate a deflationary gap. How would a larger multiplier coefficient impact the resulting deflationary gap? (9)

(Total: 25 marks)

9. a. Outline the main driver(s) of demand for money and supply of money? (6)
- b. Explain the money creation process. What would be the impact of a decrease in the reserve ratio on the overall supply of money? (9)
- c. The war between Russia and Ukraine has had significant ramifications on the European economy. Due to the implementation of sanctions on Russia, Europe lost a key supplier of its gas. Besides, due to harvest and shipping disruptions, the prices of essential food components increased sharply. In response to these inflationary supply side shocks, the European Central Bank responded by raising interest rates and the latest statistics show that the European economy is in a recession, but prices remain higher than before the war started.
Using an AS-AD framework, illustrate the impact of these developments on the European economy. Clearly indicate the initial price and output levels, and the resulting price and output levels following the shocks described above. (10)

(Total: 25 marks)

10. a. What is the difference between government budget deficit and government debt? How does the state of the economy influence the size of the government budget balance? Does the government budget balance improve or deteriorate in times of economic recession? (10)
- b. Distinguish between automatic stabilisers and discretionary fiscal policy, including **ONE** example of **each** policy. Give at least **ONE** factor that could limit the effectiveness of automatic stabilisers and discretionary fiscal policy. (8)
- c. The Government notices that economic growth is strong and above potential output, and that inflation is well above the 2% target, to the extent that a significant inflationary gap has emerged. As an advisor to the Government, you have been approached for your advice on what the Government can do to reduce the inflationary gap. Given your knowledge on the tools of fiscal policy, what policy do you deem appropriate? Identify **ONE** potential negative repercussion of the policy you proposed. (7)

(Total: 25 marks)

11. a. What is inflation? Mention **TWO** types of measures of inflation, and describe how **each** of them is constructed, clearly outlining any major differences between them. (6)
- b. Mention **THREE** repercussions that inflation has on the economy. Why is it beneficial to have some modest positive inflation? Mention **TWO** reasons why deflation is undesirable. (9)
- c. The following is a list of inflationary shocks. You are expected to categorise **each** of these shocks into those caused by one of the following: domestic demand (demand pull inflation), aggregate supply (cost push inflation). For **each** case, provide a suitable reason to justify your answer:
- Marvin owns a construction company and his supplier increased the price of cement by 10%. Marvin decides to pass the full increase in cost to his clients;
 - Following the removal of restrictions during the pandemic, restaurant bookings increased notably and hotels are running at near full capacity. This enabled restaurant and hotel operators to increase prices;

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- iii. Ceramika Ltd is engaged in the manufacturing of ceramics and employs 50 people with contractual agreements that are about to expire. Unions are exerting pressure on the management of Ceramika Ltd. to raise wages for their employees by 8.5%. Management agrees, but warns the Unions that the wage increases will be reflected in the price of the ceramics it sells;
- iv. Following the decision of several developed economies to stop from purchasing oil from Russia, the price of oil increased by 50%. All industries using oil will incur a rise in input costs, most of which will be reflected in consumer prices; and
- v. Rental prices in Malta almost doubled from 2013 to 2021 following substantial growth in the population, predominantly driven by migrants.

(10)

(Total: 25 marks)

12. a. Define the Balance of Payments and how is it calculated? Briefly explain **each** component of the Balance of Payments. What do you understand by a current account deficit? (8)
- b. Distinguish between the law of absolute advantage and the law of comparative advantage. Give **ONE** example for **each**. (7)
- c. Elaborate whether the following scenarios will have a positive or negative effect on Malta's current account balance. Explain your answer in **each** case:
- i. A depreciation of the euro against a basket of other currencies;
 - ii. An increase in "Minerals and Fuels" component of goods imports due to the increase in the price of oil, assuming that the amount of oil imported remained unchanged from last quarter;
 - iii. An increase in tourists compared to the previous year;
 - iv. A reduction in primary income outflows from Malta due to a decline in Foreign Direct Investment flows into Malta compared to the previous year; and
 - v. The imposition of tariffs on an essential product which cannot be produced in Malta.

(10)

(Total: 25 marks)



SUBJECT:	Economics
PAPER NUMBER:	II
DATE:	16 th May 2023
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 represents the market demand and supply schedules for a particular home cooking appliance over a range of prices.

Table 1

Price (€)	Demand (units/ year)	Supply (Units/year)
20	200	80
21	190	100
22	180	120
23	170	140
24	160	160
25	150	180
26	140	200
27	130	220
28	120	240

- Plot the demand and supply curves. Find the market equilibrium and equilibrium quantity. (6)
- Calculate and interpret the price elasticity of supply for all price levels and interpret any changes in elasticity values, if any. (6)
- Briefly explain **FOUR** factors that influence demand and another **FOUR** factors that affect the supply of home cooking appliances. (8)
- Assume that the Government imposes a sales tax of €3 per unit. What are the new equilibrium market price and equilibrium quantity? (5)
- The price elasticity of demand and supply determine who incurs the largest share of this new tax (i.e. consumers or producers). Discuss, using diagrams where appropriate. (8)

(Total: 33 marks)

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2. A firm producing artistic chandeliers faces the following average cost and average revenue table:

Table 2

Output	Average Cost (€)	Average Revenue (€)
10	896	3600
20	840	3500
30	826	3400
40	840	3300
50	882	3200
60	952	3100
70	1050	3000
80	1194	2900
90	1380	2800
100	1600	2700

- Calculate the total costs (TC), the total revenue (TR), the marginal cost (MC) and the marginal revenue (MR) for **all** levels of output. (7)
- 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)
- Is the profit maximising level of output allocative and productive efficient? Explain your answer and plot the relevant curves on the graph paper provided. (7)
- Comment on the relationship between the Total Cost curve, the Marginal Cost curve and the Average Cost curve. (7)
- What would happen if average revenues at each level of output decrease by 10%? Would it still be viable for the firm to operate? Explain your answer. (7)

(Total: 33 marks)

3. A newly set-up firm is considering the number of workers it needs to employ to produce firefighting equipment. It faces the following costs and output figures shown in Table 3:

Table 3

Number of Workers	Labour Costs in Euro per hour per employee	Total Output per hour
3	8	32
4	9	44
5	10	54
6	11	62
7	12	68
8	13	72
9	14	75
10	15	78
11	16	80
12	17	81

Assume that firefighting equipment sells at €7.35 per unit and that each employee works 8 hours per day.

- a. Construct a table to show the Total Cost of Labour per day (TC_L), Marginal Cost of Labour (MC_L), the Total Revenue Product per day (TRP_L), and the Marginal Revenue Product (MRP_L). (8)
- b. How many workers will the firm employ in order to maximise profits? What will its hourly wage bill and hourly revenue be at this level of employment? What is the profit per unit at the level of output? Explain your answer. (10)

Suppose that the firm is considering offering the possibility for each worker to work 2 hours per day over and above the 8 hours daily. However, each worker cannot work more than 46 hours per week.

- c. Would this change the answer provided in 3 (b) on the number of workers the firm employs in order to maximise daily profits? Show your workings. (6)
- d. If the owner of the firm decides to base calculations on weekly instead of daily figures. Would this change the answer provided in 3 (c)? Why or why not? Discuss your answer using calculations. (9)

(Total: 33 marks)

Please turn the page.

SECTION B

4. The government deficit is expected to decrease from 7.8% of GDP in 2021 to 6.0% in 2022. The increase in public expenditure related to measures to mitigate the impact of high energy prices is the main factor explaining this still high deficit level despite strong nominal GDP growth and the phasing out of pandemic-related support measures. These energy-related measures are estimated to account for 2.9% of GDP in 2022 and are expected to rise further to 3.5% of GDP in 2023, before declining to 2.7% of GDP in 2024. As a result, the general government deficit is set to decrease only marginally to 5.7% of GDP in 2023 and more markedly to 4.4% in 2024.

Tax revenue is expected to increase over the forecast horizon, in line with nominal GDP. Following further growth in employment, the revenue from social contributions is also projected to continue increasing.

The government debt-to-GDP ratio is set to increase to 57.4% in 2022 and gradually reach 60.6% in 2024 as the primary balance remains negative and nominal GDP growth becomes less dynamic.

Reference: European Commission (2022), Autumn 2022 Economic Forecast for Malta.

- a. Why is the European Commission interested in developments of the Maltese economy? (6)
- b. If nominal GDP in 2021 is €14,681,315,000 and nominal GDP is expected to increase by a year-on-year increase of 10.7% in 2022, 6.9% in 2023 and 6.5% in 2024, translate the energy-related measures for 2022, 2023 and 2024 in absolute levels. (9)
- c. Are there any fiscal rules to which Malta must adhere? If yes, is Malta in line with these rules? Discuss. (7)
- d. Discuss the relationship between fiscal surplus and public debt. Is fiscal surplus the only way to reduce public debt? (5)
- e. Why is the European Commission expecting the revenue from social contributions to increase following further growth in employment? (6)

(Total: 33 marks)

5. According to the National Statistics Office (NSO), in November 2022, the annual inflation rate as measured by the Retail Price Index (RPI) was 7.1 per cent, down from 7.5 per cent in October 2022.

The largest upward impact on annual inflation was measured in the Food index (+2.7 percentage points). The twelve-month moving average rate for November 2022 stood at 5.8 per cent.

Reference: National Statistics Office (2022), Retail Price Index: November 2022. NSO News Release 233/2022 was published on 21 December 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? (6)
- b. 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)
- c. Discuss the fiscal policy measures adopted by the Government of Malta and the monetary policy measures adopted by the European Central Bank to combat the acceleration in prices. (8)
- d. Do you think that the recent hikes in inflation are going to affect Malta's competitiveness? Explain why. (6)
- e. In periods of high inflation, does it pay to have a mortgage with fixed interest rates? Explain your answer. (5)

(Total: 33 marks)

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6. The National Statistics Office table, shown in Table 4 below, presents the Maltese balance of payments for 2021.

Table 4

Eur'000s	Credit	Debit	Net
Current Account	31,220,976	30,580,528	640,448
Goods	3,035,597	4,966,253	-1,930,656
Services	18,559,549	14,452,989	4,106,561
Primary Income	9,424,031	10,817,729	-1,393,697
Secondary Income	201,798	343,558	-141,760
Capital Account	154,032	1,879	152,154
	Assets	Liabilities	Net
Financial Account	6,112,715	5,378,492	734,223
Direct Investment	-5,966,491	3,691,157	-9,657,647
Portfolio Investment	7,399,361	373,017	7,026,344
Financial derivatives	0	291,200	-291,200
Other investment	4,723,539	1,023,119	3,700,421
Reserve assets	-43,695		-43,695
Net errors and omissions			-58,379

Reference: National Statistics Office (Dec 2022). *International Economics and Financial Transactions: Q3/2022*
 [Published on 19 December 2022]
<http://nso.gov.mt>

- a. What is the balance of payments, and why is it important? (6)
- b. "The balance of payments only reflects visible trade". Discuss whether this statement is correct or not. State why. (6)
- c. Why is Malta's services balance always in surplus and the goods balance always in deficit? (6)
- d. What is the likely impact on Malta's current account balance and GDP following:
- i. A slowdown in the economies of Malta's main trading partners; (5)
 - ii. Euro depreciated relative to the Sterling and the Dollar; and (5)
 - iii. The inflation rate in Malta is higher when compared to Malta's foreign counterparts. (5)

(Total: 33 marks)