

SUBJECT:	Economics
PAPER NUMBER:	I
DATE:	25 th April 2019
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) What do you understand by market equilibrium? Describe **TWO** non-price demand side factors and **TWO** non-price supply factors that give rise to changes in the equilibrium price and quantity of cars. (10)
- c) Suppose that the government decides to impose price controls. Provide **ONE** example of a case where a minimum price is established and **TWO** likely effects. Also provide **ONE** example of a case where a maximum price is established and **TWO** likely effects. (10)
(Total: 25 marks)

2. a) To say that some people enjoy consumer surplus means that they pay less than they would have been willing to pay for a good. Is this statement **true** or **false**? Explain your answer, with the use of a relevant diagram. (5)
- b) Distinguish between the **THREE** different types of elasticity of demand, providing **ONE** example for each type. (12)
- c) Describe **FOUR** determinants of the elasticity of demand for labour relative to changes in the wage rate. (8)
(Total: 25 marks)

3. a) A person consumes two goods – Good A and Good B and satisfies the marginal-utility-to-price ratio equalization principle. Making use of a numerical example, explain what happens if the price of Good A were to fall. Should the person buy more or less of Good A to restore the equi-marginal principle? (10)
- b) Do average fixed costs in the short run decline or increase as more output is produced? Support your answer with a brief explanation. (5)
- c) Distinguish between diseconomies of scale and diminishing marginal productivity. (10)
(Total: 25 marks)

4. a) Discuss **FIVE** characteristics underlying the perfect competition model and **FIVE** characteristics of a monopoly. (10)
- b) 'The existence of supernormal profits is not possible under perfect competition in the long run but possible for a monopoly'. Is this statement **true** or **false**? Explain your answer, with the use of relevant diagrams. (10)
- c) It is argued that 'perfect competition' conditions hardly exist in real life. Does this mean that we do not need to study market behaviour under perfect competition? Explain your answer. (5)
- (Total: 25 marks)**
5. a) Why are supernormal profits likely to disappear in the long run under monopolistic competition? (10)
- b) Distinguish between monopolistic competition and oligopoly by providing **THREE** differences. Present **TWO** examples for each market structure. (7)
- c) Explain how a firm can act as a price leader in an oligopoly, when no formal collusion exists. (8)
- (Total: 25 marks)**
6. a) What are profits? How does normal profit differ from supernormal profit? (10)
- b) Compare the wage of lawyers to that of cleaners, with reference to the theory of wage determination. (10)
- c) Some workers have a limited choice of employer. What is this situation called? Provide a brief explanation and **ONE** example. (5)
- (Total: 25 marks)**

Section B

Answer **TWO** questions from this Section.

7. a) Define GDP and explain the difference between GDP and GNP (or GNI). What would need to occur for GDP to be lower than GNP (or GNI)? (7)
- b) Explain, by making use of the appropriate diagram, the various components which together constitute the circular flow of income for an open economy. Discuss in what way a decline in exports of goods and services would affect the level of gross national income (GNI). (9)
- c) Discuss the importance of technological change and the quality of labour within the context of the process of long run economic growth. (9)
- (Total: 25 marks)**
8. a) Explain the economic relationship formulated by the consumption function and describe **TWO** factors that can cause this function to shift. (9)
- b) Explain the economic implications of the accelerator principle. (6)
- c) Explain, within the context of the income multiplier model, how an increase in aggregate investment would impact the equilibrium level of national income and describe **ONE** determinant of aggregate investment. (10)
- (Total: 25 marks)**

9. a) Describe **THREE** factors which influence the demand for money. (6)
- b) Explain the process of credit creation and describe what impact an increase in the reserve (or liquidity) ratio would have on the overall level of money supply in the economy. (10)
- c) Explain, with the aid of the 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) Explain how a Consumer Price Index, such as the Retail Price Index (RPI), is constructed and discuss **TWO** economic costs generally associated with the process of inflation. (8)
- b) Distinguish between structural, frictional and seasonal unemployment and provide **ONE** example of a policy that can be implemented to alleviate each type. (9)
- c) Based on your understanding of the Philips curve relation, is it possible for the unemployment rate and the inflation rate to both decline simultaneously? Why? (8)
- (Total: 25 marks)**
11. a) Distinguish between merit and public goods. (8)
- b) Explain the difference between national debt and a government budget deficit. In what way can rising national debt impact the government budget? (8)
- c) Suppose the government wanted to undertake a contractionary fiscal policy in order to reduce the budget deficit. Utilizing the aggregate supply and aggregate demand model explain the impact on the economy of such a policy and provide **ONE** example of a policy that could be implemented by the government in order to achieve this goal. (9)
- (Total: 25 marks)**
12. a) Describe **TWO** advantages and **TWO** disadvantages, of both fixed and flexible exchange rate regimes. (8)
- b) Describe the components of the balance of payments and explain what must occur for the balance of payments to be in surplus. (8)
- c) Discuss **THREE** costs and **THREE** benefits associated with the creation of the single European market. (9)
- (Total: 25 marks)**



SUBJECT: **Economics**
 PAPER NUMBER: II
 DATE: 26th April 2019
 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. Suppose that the data in the table below represents the market demand and supply schedules for computer games over a range of prices.

Price (Euros)	Demand (units/year)	Supply (units/year)
30	2000	1000
45	1800	1200
60	1600	1400
75	1400	1600
90	1200	1800
105	1000	2000

- Plot the demand curve and the supply curve. Find the market equilibrium price and equilibrium quantity. (8)
- Calculate and interpret the price elasticity of demand at each output level. (7)
- Mention and explain **THREE** factors other than price that are likely to influence demand for computer games. (6)
- Suppose that the Ministry for Culture would like to make computer games accessible for everyone. Explain whether it would make sense to set a maximum price of Euro 80 for computer games? (4)
- Assume now that the Ministry for Culture imposes a market price of Euro 60 on computer games. Determine the difference between demand and supply, if any, and explain what is likely to be the impact on total market welfare, consumers' surplus and producers' surplus. (8)

(Total: 33 marks)

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

Q	P	AC
1	26	33
2	26	27
3	26	23
4	26	21
5	26	20.1
6	26	21
7	26	23
8	26	27

- Calculate the total costs (TC), the total revenue (TR), the marginal cost (MC) and the marginal revenue (MR) of the firm as output increases. (8)
- Calculate the level of output that maximizes the total profit (TP). (4)
- What type of market structure might this firm fit into? Provide your reasoning for this choice of market structure. (6)
- Is the profit maximising level of output found in (b) above, allocative and productive efficient? Clearly explain your answer by plotting the necessary curves on the graph paper provided. (10)
- Is the firm operating in the short-run or in the long-run? Explain your answer. (5)

(Total: 33 marks)

3. A manufacturing company producing pharmaceutical products is considering the number of workers it needs to employ on a new production line. It faces the following cost and output figures:

Number of Workers	Cost of wages to the employer in Euro per hour per employee	Total Output per hour (TPP)
1	9	30
2	12	66
3	15	96
4	18	120
5	21	135
6	24	146
7	27	156
8	30	164

Assume that each output produced from the new production line sells at Euro 4.50 per unit and that each employee works a total of 8 hours per day.

- Construct a table to show the Total Revenue Product per day (TRP_L), the Marginal Revenue Product (MRP_L), the Total Cost of Labour per day (TC_L) and the Marginal Cost (MC_L). (8)
- How many workers will the firm employ in order to maximize profits? Explain your answer. (4)
- What will the firm's total hourly wage bill be at this level of employment? How much daily revenue will the firm earn at this level of employment? What is the profit per unit at this level of output? Explain your answer. (6)

Suppose that the workers have now formed a union which negotiates as one entity on behalf of all the workers. Imagine the union demands new investments in health and safety and firefighting equipment. This equipment would cost the firm Euro 90 per hour.

- If the firm decides to meet the union's demands, how much daily profit could it possibly make? (7)
- Unions can have both positive and negative effects on the economy. Discuss. (8)

(Total: 33 marks)

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SECTION B

4. 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. The table below highlights the monetary aggregates according to the December 2018 release:

MONETARY AGGREGATES (€ million)	DEC-18	DEC-17
Currency issued	1,028.7	968.7
Overnight deposits	14,868.0	13,943.5
Deposits redeemable at notice up to 3 months	77.3	47.4
Deposits with agreed maturity up to 2 years	3,725.6	3,780.2
Marketable instruments	640.9	782.8

Reference: Central Bank of Malta (Dec, 2018). *The Contribution of Resident MFIs to Euro Area Monetary Aggregates*
<https://www.centralbankmalta.org/monetary-banking-and-financial-markets>

- a. Compute the value of:
 - i. Narrow Money (M1)
 - ii. Intermediate Money (M2)
 - iii. Broad Money (M3) (9)
- b. Explain what is understood by overnight deposits. (4)
- c. When Malta became a member of the Eurosystem on 1st January 2008, the Central Bank of Malta no longer had 'autonomous' monetary policy. Do you think that the Central Bank of Malta is still relevant nowadays for the Maltese economy? (8)
- d. Would you expect the trends in money supply to be related to the trends in GDP? Explain your reasoning. (6)
- e. Would you expect the trends in money supply to be related to the trends in inflation? Explain your reasoning. (6)

(Total: 33 marks)

5. In its autumn 2018 economic forecast for the Maltese economy, the European Commission forecasted that employment growth is set to remain strong, but to moderate over the forecast horizon as economic growth eases. The European Commission noted that the increase in labour supply has helped to keep wage pressures contained despite strong employment growth and low unemployment, which is projected to remain around 4% in the next two years.

Furthermore, it is expected that as a result of the tighter labour market, wage pressures are likely to increase and lead to higher growth in compensation per employee. As a result, growth in unit labour cost is projected to rise to 1.9% in 2018 and to remain broadly stable over the forecast horizon.

Following a period of moderate price pressures, the European Commission noted that headline inflation began to accelerate in the second quarter of 2018, partly reflecting an increase in the weight of accommodation services in the price index, as well as the rise in international oil prices. Inflation is expected to progressively rise over the forecast horizon on the back of wage growth, and should reach around 2% in 2020.

Reference: European Commission (November, 2018). Autumn 2018 Economic Forecast - Malta. https://ec.europa.eu/info/sites/info/files/economy-finance/ecfin_forecast_autumn_081018_mt_en.pdf

- a. The European Commission publishes a full set of macroeconomic forecasts for the EU and its Member States in spring and autumn and publishes interim forecasts updating GDP and inflation figures in winter and summer. Why is it important for the European Commission to regularly monitor and assess current and expected developments in the Maltese economy? (5)
- b. The European Commission is expecting employment growth to remain strong but to be moderated over the forecast horizon as economic growth eases. Why is the European Commission expecting employment growth to moderate as economic growth eases? (Hint: Students may find it useful to discuss within the context of the circular flow of income model) (6)
- c. The European Commission noted that the increase in labour supply has helped to keep wage pressures contained despite strong employment growth and low unemployment, which is projected to remain around 4% in the next two years.
 - i. Explain the term 'wage pressures'. (3)
 - ii. Discuss how the increase in labour supply has helped to keep wage pressures contained despite strong employment growth and low unemployment. (6)
- d. Wage pressures resulting from tightening in the labour market are likely to lead to higher growth in compensation per employee. As a result, growth in unit labour costs is projected to rise to 1.9% in 2018 and to remain broadly stable over the forecast horizon.
 - i. Define the phrase a 'tight labour market'. (3)
 - ii. Define the term 'compensation per employee'. (3)
 - iii. What are unit labour costs? (3)
- e. Inflation is expected to progressively rise over the forecast horizon on the back of wage growth. Discuss. (4)

(Total: 33 marks)

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6. The following equations present key economic relationships within an open economy:

GDP identity:	$Y = C + I + G + X - M$	Equation 1
Consumption function:	$C = a + b (Y - T)$	Equation 2
Tax equation:	$T = t Y$	Equation 3
Imports equation:	$M = m Y$	Equation 4

Where:

Y = National Income

C = Consumption Expenditure

I = Investment Expenditure

G = Government Final Consumption Expenditure

X = Exports

M = Imports

a = exogenous consumption expenditure

b = marginal propensity to consume

T = income tax

t = the marginal tax rate

m = marginal propensity to import with regards to Y

All variables are measured in millions of euro.

- Using the above equations, find an expression for the equilibrium level of income (Y). (7)
- Suppose that $b = 0.8$, $t = 0.2$ and $m = 0.67$. What is the value of the income multiplier in this economy? Explain the economic meaning of the income multiplier. (6)
- Suppose that investment increases by €10 million over the previous period. What would the increase in national income be compared to the previous period? (5)
- Suppose now that instead of increasing investment by €10 million, government decides to increase its own consumption by the same amount. Do you think that this would lead to a greater increase in national income when compared to investment? If yes, why? (5)
- Suppose that in a particular year, GDP is €100 million. How much should government spending increase in order to achieve a growth rate of 15% in GDP? (5)
- Suppose that we now have a closed economy. What would the effect on the marginal propensity to consume and on the income multiplier be if the marginal propensity to save increases by 0.1 and the tax rates remain the same? (5)

(Total: 33 marks)