L-Università
ta' Malta

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE
EXAMINATIONS BOARD

**ADVANCED MATRICULATION LEVEL
2019 SECOND SESSION**

SUBJECT:	**Economics**
PAPER NUMBER:	I
DATE:	2nd September 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) Provide a definition of the term 'opportunity cost' and support your answer with an example**.** (5)

    b) What do you understand by the law of demand? Explain how a change in household income affects demand for a normal good, using an appropriate diagram. (10)

    c) What do you understand by the law of supply? Explain how a change in the cost of production of the firm affects the supply of a particular good, using an appropriate diagram. (10)
    (Total: 25 marks)

2. a) Which elasticity concept would be useful to determine whether **TWO** commodities are substitutes? Explain why. (5)

    b) Do you think that price increases can be kept under control by imposing a maximum price for a commodity? Why? (10)

    c) Define the concept of marginal utility. What analysis is it used for? (10)
    (Total: 25 marks)

3. a) Describe the difference between variable and fixed costs. (5)

    b) Why are cost curves u-shaped in the short run? (10)

    c) Distinguish between economies and diseconomies of scale. Are these concepts applicable in the short run? Support your answer with an explanation. (10)
    (Total: 25 marks)

4. a) Discuss the model of perfect competition and explain the long-run benefits of a perfectly competitive market for the consumer. (10)

    b) Identify the main contrasts between a perfectly competitive market and monopoly. (10)

    c) What is price discrimination and what **THREE** conditions must be present for it to operate? (5)
    (Total: 25 marks)

5. a) Define the concepts of monopoly and monopolistic competition. Give **ONE** example and list **THREE** characteristics for each market structure. (10)

    b) Compare and contrast monopoly and monopolistic competition. (10)

    c) What is tacit collusion? Under which market structure does it occur? (5)
    (Total: 25 marks)

6. a) Why is the demand for labour a derived demand? Provide **ONE** example. (7)

    b) What is the backward-bending supply curve of labour? (7)

    c) Explain how wage rates are determined under a perfectly competitive labour market. (11)
    (Total: 25 marks)

Section B

Answer TWO questions from this Section.

7. a) Define GDP and distinguish between real and nominal GDP. Which of these two measures of GDP would you utilise in order to assess solely the behaviour of output production? Why? (7)

    b) Explain the circular flow of income within the context of the various leakages and injections involved in the generation of national income. What would be the likely impact on national income of an increase in exports of goods and services? (9)

    c) Discuss **TWO** benefits and **TWO** costs associated with the process of long run economic growth. (9)
    (Total: 25 marks)

8. a) 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. (7)

    c) Explain, within the context of the income multiplier model, how an increase in government spending would impact the equilibrium level of national income in the economy. Would this effect be larger or smaller if the marginal propensity to consume were to increase? Why? (10)
    (Total: 25 marks)

9. a) What are the main functions of money? (7)

    b) What are the main instruments a central bank has at its' disposal to implement monetary policy? (9)

    c) Explain, utilizing the appropriate graphical analysis, the impact on the equilibrium interest rate in the economy of the central bank implementing a contractionary monetary policy. (9)
    (Total: 25 marks)

10. a) Explain, using examples, the difference between frictional, structural and cyclical unemployment. (8)

   b) Utilize the aggregate supply and aggregate demand relations to explain the impact of an increase in energy prices on the equilibrium level of output and price level in the economy. (9)

   c) Explain the relationship between inflation and unemployment implied by the short-run Philips curve. Does this relationship vary in any way as we move from the short-run to the long-run? (8)

   (Total: 25 marks)

11. a) Explain the difference between a government budget deficit and national debt. (8)

   b) Discuss the role that automatic stabilizers play within the context of the overall management of the national economy. (8)

   c) Describe, by making use of the appropriate graphical analysis, the impact on the economy of a supply-side tax reduction and put forward **ONE** criticism linked to the implementation of such a policy. (9)

   (Total: 25 marks)

12. a) Explain, by making use of examples, the difference between the law of absolute advantage and the law of comparative advantage. (8)

   b) Distinguish between tariffs, quotas and export subsidies and provide **TWO** motives which could explain why a government may wish to implement such policies. (8)

   c) Describe the main components of the balance of payments and explain what the likely impact on the current account of the Maltese economy would be in the eventuality of an appreciation of the Euro against the British Pound. (9)

   (Total: 25 marks)

SUBJECT:	**Economics**
PAPER NUMBER:	II
DATE:	3rd September 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 mobile phones over a range of prices in a particular country.

Price (Euros)	Demand (units/year)	Supply (units/year)
200	120000	20000
400	100000	40000
600	80000	60000
800	60000	80000
1000	40000	100000
1200	20000	120000

a. Plot the demand curve and the supply curve. Find the market equilibrium price and equilibrium quantity. (8)

b. Does the above data conform to the laws of demand and supply? Explain your answer. (4)

c. Calculate and interpret the price elasticity of demand at each output level. (7)

d. Suppose that the government had to introduce an environment lump-sum tax of €100 on each mobile phone irrespective of the price. What is likely to happen in the market? Discuss by making reference to total market welfare, consumers' surplus and producers' surplus. (9)

e. What could determine the tax incidence (or tax burden) between the seller and the buyer? Illustrate on whom the tax incidence falls in the case of an inelastic supply and an elastic demand. (5)
(Total: 33 marks)

2. A firm producing desk lamps faces the following average cost and average revenue table:

Output (Desk Lamps)	Average Cost (€)	Average Revenue (€)
1	26.88	50.00
2	25.20	49.00
3	24.78	48.00
4	25.20	47.00
5	26.47	46.00
6	28.72	45.00
7	32.00	44.00
8	36.20	43.00
9	41.11	42.00
10	46.62	41.00

a. Construct a table to show the Total Cost (TC), Marginal Cost (MC), Total Revenue (TR) and Marginal Revenue (MR) at each level of output. (8)

b. Plot the Average Cost (AC) and the Average Revenue (AR) and then separately plot the Marginal Revenue (MR) and the Marginal Cost (MC) figures. (6)

c. At which level of output should the firm produce to be most profitable? How much profit will the firm earn in this case? Highlight the area of the graph, which represents the profit made. (9)

d. Is the level of output highlighted in (c) the same as the revenue-maximising level of output? (4)

e. Under which circumstances, would it make sense for you to advice the shut-down of the firm? Is the answer dependent on whether the firm is operating in the short-run or in the long-run? Explain your answer. (6)

(Total: 33 marks)

3. As an economic consultant, you have been approached by the managing director of XYZ Ltd to provide advice on the number of workers the business needs to employ in order to run its operations and maximize profits. You have been provided 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	1
2	7	12
3	8	22
4	9	31
5	10	39
6	11	46
7	12	52
8	13	57

Assume that output sells at €3 per unit and that each employee works a total of 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). (10)

b. How many workers will the firm employ in order to maximize profits? What will its total wage bill be at this level of employment? How much revenue will the firm earn at this level of employment? (9)

Suppose that the managing director of XYZ Ltd is also considering investing in a fully-paid health insurance package for each employee as a means of improving the salary package and reduce labour turnover rates. This would result in the following additional costs per employee in Euro:

Number of Workers	Insurance costs in Euro per employee
1	65
2	60
3	56
4	52
5	49
6	47.5
7	45
8	44

c. If the firm decides to go for this option, calculate the number of workers the firm will employ in order to maximize profits under this scenario. (8)

d. How much profit will the firm forego if the managing director of XYZ Ltd decides to proceed with the option referred to in part (b)? (6)

(Total: 33 marks)

SECTION B

4. According to NSO data, during 2018 Malta registered a trade deficit of €2,858.5 million compared to a trade deficit of €2,455.1 registered in 2017.

€ million	2017	2018
Imports	**6,119.9**	**6,114.5**
Industrial Supplies	**1,322.3**	**1,441.9**
Primary	126.3	125.1
Semi-Finished	1,010.6	1,117.3
Finished	185.4	199.4
Capital Goods and Others	**1,680.2**	**1,362.9**
Consumer Goods	**1,345.7**	**1,420.7**
Food and Beverages	530.4	535.7
Durable Goods	468.8	476.8
Others	346.5	408.1
Fuels and Lubricants	**1,771.7**	**1,889.1**
Exports	**3,664.8**	**3,256.1**
Visible Trade Gap	**- 2,455.1**	**- 2,858.5**

Reference: National Statistics Office (Dec, 2018). International Trade: December 2018
[Published on 11 February 2019]
https://nso.gov.mt

    a. Explain what is understood by visible trade gap? Why would you expect the Maltese visible trade gap to be negative? (7)

    b. What is driving the widening in the trade deficit of €403.4 million between 2017 and 2018? Calculate the year-on-year percentage change in the visible trade gap between 2017 and 2018? (8)

    c. What are the macroeconomic effects of running visible trade deficits? Is it possible to offset these deficits from other components within the balance of payments? (8)

    d. What is the likely impact on Malta's visible trade gap and GDP following:
       i) A slowdown in the economies of Malta's main trading partners; (5)
       ii) Euro appreciates relative to the Dollar and the Sterling. (5)

(Total: 33 marks)

5. In 2019, the fiscal surplus is expected to decline marginally to 1.2% of GDP, from the estimate of 1.3% in 2018. In line with still robust but moderating macroeconomic conditions and the reduction in taxation, growth in tax revenues is expected to slow down somehow towards the growth rate in nominal GDP. On the other hand, in spite of increases in social spending related to the budget measures, current expenditure growth is projected to weaken and interest expenditure is set to marginally decrease. Net public investment is forecast to increase marginally, as the implementation of investment projects co-financed by the EU is forecast to remain dynamic, while other capital expenditure is expected to decrease following the base effect from the previous year.

    From 50.9% in 2017, the debt-to-GDP ratio is projected to fall to 47.9% in 2018, below 45% in 2019 and to reach 42.1% by 2020.

    Reference: European Commission (2018), Autumn 2018 Economic Forecast
    https://ec.europa.eu/

    a. Why does the European Commission produce fiscal forecasts of the Maltese economy? Are there any fiscal rules which Malta must adhere to? Explain in detail.   (7)

    b. Discuss the relationship between fiscal surplus and public debt. Is fiscal surplus the only way to reduce public debt?   (8)

    c. Taxation is an essential instrument of fiscal policy. Discuss the rationale behind taxation and briefly describe the different types of taxes at the Government's disposal.   (9)

    d. What is the balanced budget multiplier? Explain your answer through an example.   (5)

    e. "… while other capital expenditure is expected to decrease following the base effect from the previous year." What do you understand by the phrase a 'base effect from the previous year'?   (4)

    (Total: 33 marks)

Questions continue on next page

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

Y = C + I + G   Equation 1
C = 20 + 0.7 (Y - T)   Equation 2
T = tY   Equation 3
I = 40   Equation 4
G = 35   Equation 5
T = 20   Equation 6
t = 0.2   Equation 7

Where:
Y = National Income
C = Consumption Expenditure
I = Investment Expenditure
G = Government Final Consumption Expenditure
T = income tax
t = marginal tax rate

All variables are measured in millions of euro.

a. Determine which of the above are final expenditures and which are leakages.   (5)

b. Define the 'Marginal Propensity to Consume', the 'Marginal Propensity to Save' and 'Autonomous Consumption'. What are the values taken by each in the equations above?
          (9)

c. Use the equations above to find the equilibrium value of income (Y).   (8)

d. Explain how savings is equal to investment in the economy.   (5)

e. Discuss the implications of:
   i)   the tax rate (t) equal to 0;   (2)
   ii) a change in investment from 40 to 50;   (2)
   iii) a change in government expenditure from 35 to 30.   (2)
          (Total: 33 marks)