

**MATRICULATION AND SECONDARY EDUCATION CERTIFICATE EXAMINATIONS BOARD**  
**UNIVERSITY OF MALTA, MSIDA**  
**MATRICULATION EXAMINATION**  
**ADVANCED LEVEL**  
**SEPTEMBER 2015**

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<b>SUBJECT:</b>	ECONOMICS
<b>PAPER NUMBER:</b>	I
<b>DATE:</b>	1 <sup>st</sup> September 2015
<b>TIME:</b>	9.00 a.m. to 12.00 noon

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

**Section A**

1.
  - a) Explain the key issue that arises from the existence of scarcity. (5 marks)
  - b) Explain why a situation of excess demand will result in an increase in the market price. Why will a situation of excess supply result in a decrease in the market price? (6 marks)
  - c) Explain, with the help of a diagram, what happens to the equilibrium price and quantity if new regulations on environmental pollution force a firm making paint to increase outlay on reducing its emission on toxic fumes. (7 marks)
  - d) Explain how the government may intervene in the housing market if the level of rent is considered to be excessive. (7 marks)
  
2.
  - a) Discuss whether the demand curve and the budget line are similar in the way they represent the effect of
    - i. a rise in the price of a good.
    - ii. a rise in a consumer's income. (6 marks)
  - b) What is a utility function? Why is it a useful tool for analysis? (6 marks)
  - c) What does the assumption that 'more is better' imply about the marginal utility of a good? Is this assumption always true in reality? (6 marks)
  - d) Explain what is meant by the equi-marginal principle of consumer demand. (7 marks)
  
3.
  - a) Explain how the concept of elasticity could be used to identify the economic relationship between butter and margarine. (5 marks)
  - b) Discuss whether a firm's revenue would increase, in response to price and income changes, if the price elasticity and income elasticity of demand for its product became highly elastic. (8 marks)
  - c) By providing examples, discuss three main important influences on the size of the price elasticity of demand. (6 marks)
  - d) Many business travellers receive reimbursement from their companies when they travel by air, whereas vacation travellers typically pay for their trips out of their own pockets. How would this affect the comparison between the price elasticity of demand for air travel for business travellers versus vacation travellers? (6 marks)

4. a) What is the difference between average product and marginal product? (6 marks)  
b) Define the Short Run Law of Variable Proportions. Why is this considered as a short-run concept? (6 marks)  
c) How would an increase in the price of capital (assuming the price of other inputs remain constant) shift the long-run average cost curve? (7 marks)  
d) Explain the difference between Economies of Scale and Diseconomies of Scale. Illustrate these two concepts on a diagram. (6 marks)
5. a) Considering the case of a perfectly competitive firm, why might a firm continue to produce in the short run even though the market price is less than its average total cost? Illustrate your answer on a diagram. (6 marks)  
b) The marginal revenue for a perfectly competitive firm is equal to the market price. Why is the marginal revenue for a monopolist less than the market price for positive quantities of output? (6 marks)  
c) Discuss how the output and pricing policy adopted by a firm might differ depending on the market structure in which it operates. (7 marks)  
d) What are the characteristics of a monopolistically competitive industry? (6 marks)
6. a) Explain how wages are determined in a perfectly competitive labour market. (6 marks)  
b) What are the three main factors that determine the responsiveness of the demand for labour to changes in the wage rate? (6 marks)  
c) A proposal to remedy a shortage of medical workers is to increase the wage rate. Under what conditions would you expect this proposal to be effective at reducing the shortage? (7 marks)  
d) Identify the main implication of a minimum wage that raises the wage rate above its equilibrium value assuming a competitive labour market. (6 marks)

## **Section B**

7. a) Explain the different methods which can be utilized to measure GDP. In what way does GDP differ from GNP? (8 marks)  
b) Explain, by also making use of the appropriate diagram, the circular flow of income within the context of the various leakages and injections involved in the generation of gross national income. (8 marks)  
c) Describe, using examples, the three main drivers of long run economic growth. (9 marks)
8. a) Discuss, by using an appropriate diagram, the relationship between household consumption expenditure and disposable income. (7 marks)  
b) Explain, within the context of the multiplier process, the impact of a fall in investment on the equilibrium level of income in the economy. (9 marks)  
c) Explain the effect of an increase in the income tax rate on (i) household consumption expenditure, (ii) the size of the multiplier and (iii) the equilibrium level of output. (9 marks)

9. a) Explain the quantity theory of money. (7 marks)  
b) Describe the tools the European Central Bank has at its disposal to undertake monetary policy. (8 marks)  
c) Explain, with the aid of diagrams, the impact of an expansionary monetary policy on the equilibrium level of output in the economy. (10 marks)
10. a) Explain how a Consumer Price Index is constructed and provide an example of an index used to measure average price changes in the Maltese economy. (7 marks)  
b) Distinguish between demand pull and cost push inflation. Which of these two causes of inflation generates stagflation? (9 marks)  
c) Discuss the relationship between inflation and unemployment, and explain whether it is possible for the unemployment rate to increase while inflation is also rising. (9 marks)
11. a) Why is national debt considered to be a burden ? (8 marks)  
b) Describe, utilizing the aggregate demand and aggregate supply model, the resulting impact on the economy of a successful supply-side tax reduction. Put forward one criticism with respect to the implementation of such supply-side policies. (9 marks)  
c) Distinguish between frictional and structural unemployment. Provide one example of a policy the government can implement in order to reduce each of these types of unemployment. (8 marks)
12. a) Explain, with the aid of the appropriate graphical analysis, the gains from international trade expected to occur under the law of comparative advantage. (8 marks)  
b) Distinguish between tariffs, quotas and export subsidies. Provide two motives which could provide the incentive for a government to implement such policies. (8 marks)  
c) What would the likely impact be on the balance of trade and on the balance of payments of the Maltese economy in the eventuality of an appreciation of the Euro against the British Pound? Discuss two factors which could lead to a currency appreciation. (9 marks)

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<b>SUBJECT:</b>	ECONOMICS
<b>PAPER NUMBER:</b>	II
<b>DATE:</b>	2 <sup>nd</sup> September 2015
<b>TIME:</b>	9.00 a.m. to 12.00 noon

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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****Question 1**

The following table provides information on the demand for broadband (internet) at different price levels.

Quantity demanded (Megabits)	Price (€) per Megabits per second (Mbps)
0	11
1	10
2	9
3	8
4	7
5	6
6	5
7	4
8	3
9	2

- Plot the quantity demanded on the x-axis and price on the y-axis. (4 marks)
- Calculate the price elasticity of demand when price changes between:
  - €4 and €5 per Mbps. (2 marks)
  - €8 and €9 per Mbps. (2 marks)
- Interpret the results obtained in (b) above, indicating whether demand is price-elastic, unitary price elastic or price-inelastic. (6 marks)
- Would it benefit the supplier to increase the price from €6 to €8? Why or why not? (6 marks)
- What factors other than price are likely to influence demand for broadband? (6 marks)
- Suppose the government would like to make broadband accessible for all. Would it make sense to set a maximum price for broadband? (7 marks)

Total: 33 marks

**Question 2**

Based on numerous studies and sources reporting price elasticity of demand, the following list provides selected price elasticities of demand:

- Household electricity: -0.13
- Bread: -0.15
- Cigarettes: -0.25
- Medical care: -0.31
- Gasoline/petrol: -0.60
- Public transport: -1.20
- Beef: -1.27
- Restaurant meals: -2.27

- a. Briefly explain why all values carry a negative sign. (3 marks)
- b. From the above list, give examples of two goods/services for which demand is price INELASTIC, and explain why you would have expected such goods/services to exhibit an inelastic demand. (8 marks)
- c. From the above list, give one example of a good/service for which demand is price ELASTIC, and explain its implication to the providers/suppliers of this good/service. (4 marks)
- d. Would you expect the income elasticity of (i) organic bread, and (ii) premium petrol to be elastic or inelastic? Why? (6 marks)
- e. How will the above information be used to make informed decisions regarding:
  - i. whether governments should increase duties on cigarettes? (4 marks)
  - ii. whether public transport operators should price discriminate in favour of students and the elderly? (4 marks)
  - iii. whether to support a campaign in favour of increasing gasoline/petrol prices so that people start considering electric vehicles? (4 marks)

Total: 33 marks

**Question 3**

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

Q	P	AC
1.0	40.0	43.0
2.0	40.0	37.0
3.0	40.0	33.0
4.0	40.0	31.0
5.0	40.0	30.0
6.0	40.0	31.0
7.0	40.0	33.0
8.0	40.0	37.0
9.0	40.0	43.0
10.0	40.0	50.0

- a. Calculate the total costs (TC) and the total revenue (TR) of the firm and calculate the level of output that maximizes total profit (TP). (6 marks)
- b. Based on (a) above, what is the total profit at this level of output? (2 marks)
- c. Show whether you would have arrived at the same conclusion as in (a) above if you had calculated marginal revenues and marginal costs. (6 marks)
- d. Price is not changing. What type of market structure might this firm fit into? Provide your reasoning for this choice of market structure. (6 marks)
- e. Discuss and explain the shape of the AC line/curve. (6 marks)
- f. Is the firm operating in the short run or in the long run? Why? (7 marks)

Total: 33 marks

## **Section B**

### **Question 4**

According to data on the gainfully occupied population collected by the Employment and Training Corporation (ETC) and published by the National Statistics Office (NSO), in 2014 registered full-time employment increased by about 3% when compared to the previous year.

Also according to the NSO, during the fourth quarter of 2014, Labour Force Survey estimates indicate an increase of 1.2% in employment when compared to the corresponding quarter in 2013. Unemployed persons stood at 3.1% while inactive persons totalled 46.6%. Hence the activity rate stood at 65.5%. The highest activity rate was recorded among persons aged 25-54 (79.0%).

- a. Is there any difference between the source of the ETC gainfully occupied population data and the NSO's Labour Force Survey? Explain your answer. (6 marks)
- b. Can the unemployment rate be reduced to 0% through policy measures? Explain your answer. (5 marks)
- c. What do you understand by "inactive persons"? Give examples. (4 marks)
- d. It is often argued that it is very important for any economy to increase the activity/participation rate of both males and females in order to sustain economic growth. Ignoring any gender differences, do you agree with the view that economic growth depends on the activity rate? Why? (6 marks)
- e. Looking into gender differences, why is it important for Malta to have more women in the labour market? (8 marks)
- f. Give two examples of policies that can be adopted to increase the female labour market participation rate in Malta. (4 marks)

*Please turn the page.*

**Question 5**

Consider the following closed economy. Consumption (C), investment (I), government spending (G), and income taxes (T) are given by:

$$Y = C + I + G \quad \text{eq. (1)}$$

$$C = 20 + 0.7(Y - T) \quad \text{eq. (2)}$$

$$I = 20 \quad \text{eq. (3)}$$

$$G = 20 \quad \text{eq. (4)}$$

$$T = 20 \quad \text{eq. (5)}$$

All variables are measured in millions of Euro at constant prices.

- What is the meaning of the Marginal Propensity to Consume and the Marginal Propensity to Save? (4 marks)
- What values of the MPC and the MPS are assumed in equation 2? (2 marks)
- Using the five equations above, solve for the equilibrium value of income (Y). (10 marks)
- What is the value of the income multiplier in this economy? Explain the economic meaning of the income multiplier. (6 marks)
- If we were to assume an open economy (with exports and imports), would the value of the income multiplier be the same? Why or why not? (6 marks)
- Discuss the implications of a change in investment from 20 to 25. (5 marks)

Total: 33 marks

**Question 6**

On 30 March 2015, Malta submitted its report on government deficit and debt levels for the year 2014 to the European Commission. According to data published by the National Statistics Office (NSO), the General Government deficit for 2014 stood at 2.1% of GDP. The gross consolidated debt amounted to 68% of GDP. Adjustments to arrive at the deficit included, amongst others, accounts receivable and payable, equity injection in public sector entities, and the difference between interest paid and interest accrued.

- Why does Malta have to report on government deficit and debt levels to the European Commission? (6 marks)
- Distinguish between government deficit and debt. (6 marks)
- Explain two ways how the debt level can be reduced. (6 marks)
- The text mentions an equity injection in public sector entities. Give an example of a public sector entity and explain its source of funding. (6 marks)
- Explain why government needs to pay interest, and why at the same time it receives interest payments. (4 marks)
- Do you think that there is an element of seasonality in the pattern of government expenditure and government revenue? Why or why not? (5 marks)

Total: 33 marks