



SUBJECT:	Home Economics and Human Ecology
PAPER NUMBER:	I
DATE:	26 th April 2018
TIME:	4:00 p.m. to 7:05 p.m.

Answer any FIVE questions (20 marks each)

1. A young working couple with two small children need to move house as their two-bedroom apartment has become too small. The couple would like to purchase a terraced house with some outdoor space.
 - a. Outline **FOUR** benefits for the family of moving into a larger dwelling at this stage in life. (2)
 - b. List **FOUR** factors that the couple should consider when choosing the new residence. (2)
 - c. An estate agent was engaged to assist the couple in searching for a new dwelling. Outline **TWO** advantages and **TWO** disadvantages of looking for a residence with the assistance of an estate agent. (2, 2)
 - d.
 - i. Name **TWO** methods the couple can use to look for a home, other than with the assistance of an estate agent. (1)
 - ii. Give **ONE** advantage and **ONE** disadvantage of each of the methods mentioned in part (d)(i) above. (2, 2)
 - e. The couple need to obtain a mortgage to purchase and finish their new home. Explain the importance of the following documents when obtaining a mortgage from a bank:
 - i. a life insurance policy; (1)
 - ii. a promise of sale; (2)
 - iii. a surveyor/architect report; (2)
 - iv. a house insurance policy. (1)
 - f. Outline the benefit for the couple of conducting an energy efficiency assessment of the building. (1)

(Total: 20 marks)

2. The quality of life of persons during retirement depends, in part, on their financial planning during their working years. Improper financial planning can lead to a number of negative outcomes.
- a. Define the term financial planning and describe **TWO** factors which should generally be considered when planning a financial portfolio. (1, 2)
 - b. A middle-aged couple with a teenager still attending secondary school, decide to invest some saved money in one or more bank accounts. Compare and contrast **TWO** bank accounts available locally, outlining the various benefits they would offer the couple. (2, 2)
 - c. For each of the following situations, state **TWO** different methods of financial planning (other than investing in bank accounts), and list **ONE** advantage and **ONE** disadvantage for each method mentioned:
 - i. a young couple with a pre-school child who are building a new home; (1,4)
 - ii. a young, single female working full-time. (1,4)
 - d. Explain the importance of investing for retirement and highlight what can occur if this is not done. (3)
(Total: 20 marks)
3. While recovering at home from surgery, a model aeroplane enthusiast wants to purchase a model of an aeroplane.
- a. Name **TWO** shopping methods which the enthusiast can utilise to buy this model. Give **TWO** advantages and **TWO** disadvantages for each of the different shopping methods outlined. (1, 2, 2)
 - b. List **THREE** factors that this enthusiast should check when shopping from home. (3)
 - c. Explain **TWO** consumer rights related to time and expenses that apply to distance shopping. (2)
 - d. This enthusiast opts to settle his payment when doing his purchase using a credit card.
 - i. Outline the difference between a debit and a credit card. (1)
 - ii. Give **TWO** advantages and **TWO** disadvantages of paying with a credit card. (2, 2)
 - e. Discuss **TWO** other credit facilities this enthusiast can use, if he does not have enough cash to settle his payment. Give **TWO** advantages for each credit facility mentioned. (1, 2, 2)
(Total: 20 marks)

4. The rate of domestic recycling is still low in Malta, decreasing from 10% in 2012 to 6.7% in 2015. *(Source: http://ec.europa.eu/eurostat/statistics-explained/index.php/Municipal_waste_statistics)*
- a. Justify the ecological importance of recycling. (3)
 - b. Describe **TWO** possible ways how children in schools and **TWO** possible ways how teenagers at youth centres could recycle and reuse waste. (2, 2)
 - c. Outline **THREE** measures how the owners of large retail outlets and **THREE** measures how restaurants/cafés, could encourage consumers to become more environmentally friendly and reduce waste. (3, 3)
 - d. Consumers tend to spend a large part of their income on gifts and leisure activities during Christmas. List **FOUR** ways how individuals and families can be environmentally friendly in **EACH** of the following:
 - i. when giving gifts to family members; (2)
 - ii. when going for a holiday. (2)
 - e. Outline **THREE** governmental and/or non-governmental initiatives that encourage consumers to act sustainably when disposing of clothing after use. (3)
- (Total: 20 marks)**
5. Retailers use traditional forms of marketing, as well as other means to reach out to customers.
- a. Give **TWO** advantages of advertising for:
 - i. the consumer; (2)
 - ii. the retailer or service provider. (2)
 - b. Sometimes advertisements can mislead potential customers. Describe **TWO** ways how an advertisement can be misleading. (2)
 - c. Outline how the Malta Consumer and Competition Affairs Authority (MCCAA) assists consumers who have a complaint about misleading advertising. (2)
 - d. An environmentally friendly consumer is very careful when shopping for detergents and toiletries. Identify and explain **TWO** different eco-labels that are commonly found on packaging of toiletries and/or detergents available locally. (1, 2)
 - e. A local retailer has advertised that all the items of clothing available on sale are labelled as having been tested for harmful substances.
 - i. Name and describe the label that is usually found on clothes and other textile products to show that the items have been tested against harmful substances. (2)
 - ii. Explain **TWO** provisions of local legislation regarding the labelling of textile products. (2)
 - f. A consumer intends to purchase a tumble dryer. State **TWO** ways how the consumer can obtain information about tumble dryers, apart from advertisements on television and magazines/brochures. For each source of information, list **TWO** advantages and **TWO** disadvantages. (1, 2, 2)
- (Total: 20 marks)**

Questions continue on next page

6. Taking care of a young child and returning to work can be challenging for parents, despite the support services that are provided by the government and other entities.
- a. Outline **ONE** advantage and **ONE** disadvantage of sending a young child to a childcare centre as opposed to having a private childminder. (1, 1)
 - b. Describe **TWO** benefits of sending a 2-year-old child to a childcare centre to improve his/her development for each of the following key aspects:
 - i. social; (2)
 - ii. physical; (2)
 - iii. emotional; (2)
 - iv. intellectual. (2)
 - c. A single mother with 4-year-old twins is planning to return to work, but is reluctant to leave her children in the care of her elderly parents.
 - i. Name and describe **TWO** family-friendly measures offered by the state for which the mother could apply in order to help her balance family life and work. (1, 1, 1)
 - ii. Discuss **TWO** benefits for the mother and **ONE** benefit for the state of opting for **ONE** of the family-friendly measure mentioned in part (c)(i) above. (2, 1)
 - iii. Outline **TWO** advantages and **TWO** disadvantages of having young children looked after by grandparents. (2, 2)

(Total: 20 marks)



SUBJECT:	Home Economics and Human Ecology
PAPER NUMBER:	II
DATE:	27 th April 2018
TIME:	4:00 p.m. to 7:05 p.m.

Answer any FIVE questions (20 marks each)

1. Protein is a macronutrient which can be derived from animal or plant sources.
 - a. Define the term macronutrient and give **TWO** examples other than protein. (1, 1)
 - b. Name the chemical elements of protein, and describe the basic structure of this macronutrient. (2, 1)
 - c. Proteins derived from plant sources are referred to as proteins of low biological value.
 - i. Explain the term proteins of low biological value. (1)
 - ii. Describe how certain plant protein foods can be combined to obtain an adequate supply of high-quality protein, giving **TWO** specific examples of food combinations and the amino acids available in these foods. (1, 2, 2)
 - d. Outline the functions of protein for the following categories of people:
 - i. pregnant women; (1)
 - ii. elderly persons; (1)
 - iii. patients who have undergone surgery; (1)
 - iv. bodybuilders. (1)
 - e. Describe in detail the physical and chemical processes involved in the digestion of protein found in dairy products. (5)

(Total: 20 marks)

2. The consumption of take-away meals is very popular with teenagers and young families.
 - a. Outline **FOUR** factors that affect food choices and eating patterns of teenagers and young families. (2)
 - b. Explain why the trend of take-away food consumption is popular among teenagers and young families. (2)
 - c. A take-away outlet which targets young teenage customers is revamping its food menu to offer healthier alternatives. A popular food choice by teenagers is fried burger and chips, including a soft drink.
 - i. Outline **TWO** short-term and **TWO** long-term effects on teenagers' health if fried burger, chips and a soft drink are consumed on a regular basis. (2, 2)
 - ii. State **FOUR** modifications that the food outlet owner can make to provide a healthier alternative to this popular fast food choice. Justify each modification suggested. (2, 4)
 - iii. The food outlet owner wants to offer food items that are suitable for vegans. Explain the possible choice of ingredients for making a vegan alternative to the meat burger by outlining their nutritional value. (1, 1)
 - iv. Strict hygiene practices should be followed when preparing food. Define the abbreviation HACCP and outline the basic features of this system. Highlight its implications for consumer health and food handling practices. (1, 1, 2)

(Total: 20 marks)

3. Some individuals find it difficult to maintain an adequate energy balance.
- a. Define the term energy balance and explain how this can be attained by an individual. (1, 2)
 - b. Outline **TWO** effects of an energy imbalance in the body. (2)
 - c. A high Body Mass Index (BMI) can indicate cases of overweight and obesity. Explain how the BMI can be calculated and outline the difference between overweight and obesity, giving the BMI value ranges for each condition, and the impact these conditions could have on the health of an individual. (½, 2, 1, 2)
 - d. A Gozitan university student with a high BMI and sedentary lifestyle resides in Malta during the week and travels to Gozo in the weekend.
 - i. Highlight **THREE** measures that this student can take to manage his weight problem. (3)
 - ii. On his return to Malta, the student takes along a weekly supply of home-made baked savoury pies and sweet items. Explain how the family could better help the teenager consume a healthy diet. (2)
 - iii. Describe a healthy and economical breakfast that the student could prepare and justify the choice of ingredients/foods included for the breakfast. (1½, 3)

(Total: 20 marks)
4. Preservation is essential in food production and has been practised for thousands of years.
- a. Explain **THREE** benefits of food preservation. (3)
 - b. Outline the basic scientific principles underlying the following methods of preservation and give **ONE** example of each method:
 - i. natural; (2)
 - ii. artificial chemical; (2)
 - iii. temperature-controlled. (2)
 - c. Last year, Maltese olive trees had a very good crop yield. State **TWO** ways how the crop or its by-products can be preserved. Outline the process and related scientific principles involved in **ONE** of these methods. (2, 2)
 - d. Many local farmers are converting to organic farming of olive groves.
 - i. Outline **THREE** advantages and **TWO** disadvantages for farmers of growing and cultivating organic olives. (3, 2)
 - ii. Briefly describe the process used locally for classifying such olive products as organic. (2)

(Total: 20 marks)

5. a. Vitamins A, D, E and K are fat-soluble vitamins. For each of these vitamins:
- i. state the function in the body; (4)
 - ii. name **ONE** deficiency symptom. (2)
- b. Explain how Vitamin D is synthesised from sunlight. (2)
- c. Rice is a very rich source of Vitamin Bs, namely B₁, B₂, B₃ and B₆. For each of these vitamins, give the scientific name, **ONE** function and a rich source other than rice. (2, 4, 2)
- d. Adequate intake of vitamins should ideally be consumed through a healthy diet. Identify **TWO** situations when vitamin supplements may be prescribed, justifying the reasons for such an intake. (2)
- e. Outline **TWO** ways how a person can ensure a safe intake of vitamin supplements. (2)
- (Total: 20 marks)**
6. Different types of flours are available on the market. These can be used in the preparation of variety of food products.
- a. Distinguish between wholegrain and refined flour by outlining how they are produced and giving their nutritional value. (1, 2)
- b. Identify **TWO** types of flour, other than wholegrain and plain flour, and describe their specific characteristics, stating **TWO** uses of each type. (2, 2)
- c. Explain the scientific principles behind the formation of gluten during the production of baked products. (2)
- d. Suggest **THREE** guidelines one should follow when purchasing and storing flour. (3)
- e. Local bakers are producing various types of bread for their customers. Gluten free, lactose free and low sodium varieties are in great demand.
- i. Identify specific groups of consumers that require the consumption of these **THREE** varieties of bread. (1½)
 - ii. Describe how these varieties of bread can help specific groups of consumers who cannot eat other types of bread. (3)
- f. 'Pastizzi' are a popular treat among locals and tourists despite their unhealthy nutritional profile. Indicate **THREE** ways how these traditional treats could be modified to make them healthier. (1½)
- g. Identify **ONE** traditional Maltese dish in which flour is one of the main ingredients, and outline its nutritional value. (½, 1½)
- (Total: 20 marks)**