



SUBJECT:	Home Economics and Human Ecology
PAPER NUMBER:	I
DATE:	26 th April 2024
TIME:	9:00 a.m. to 12:05 p.m.

ANSWER ANY FIVE QUESTIONS (20 marks each)

1. Children's wellbeing is a combination of their physical, intellectual, emotional and social development.
- Outline the **FOUR** different types of development mentioned above. (4)
 - Identify **TWO** instances when life situations can interfere with children's development. (2)
 - Suggest **ONE** way how child carers and parents can promote **each** type of development for a one-year-old child. (4)

Through play children learn about themselves, the world around them and help them to develop skills and abilities.

- Give **THREE** examples of do-it-yourself toys that can help a one-year-old child to develop. (3)
- Explain how **each** of the toys mentioned in part (d) help the child to develop. (3)

Vaccines for infants and children up to 16 years are free of charge for all Maltese and EU citizens residing in Malta.

- Justify, by giving **TWO** reasons, the importance of vaccination for children. (2)
- List **FOUR** diseases that children under the age of one are immunized against. (2)

(Total: 20 marks)

Please turn the page.

2. Glen and Ally are both in their early 20's and are newly graduates from the University of Malta. They have been in a relationship for almost five years and saved thousands of euros. They are currently looking for their future home.

- a. Suggest the **TWO** most appropriate dwellings suitable for their budget considering their age and savings. (1)
- b. Identify **FOUR** different factors they should consider when choosing the location of their new home. (4)

Rents across the board (in Malta and Gozo) have increased by 6.6% in the second quarter of 2022 when compared to the same period in 2021. *(Times of Malta, 2023)*

- c. Glen and Ally are considering renting. Suggest, giving **THREE** reasons, why the couple might consider renting instead of home ownership. (3)
- d. After much consideration, they realised that renting will not help them to save enough funds for their future home ownership. Explain, giving **TWO** reasons, why renting prices in Malta are also very expensive. (2)
- e. Identify **TWO** schemes that the government implemented to help young buyers afford to buy and complete a new home in Malta or Gozo. (2)

Many individuals are not financially able to afford home ownership. Hence, they qualify for social housing.

- f. Define the term social housing. (2)
- g. State **THREE** criteria that makes a person eligible to apply for social housing. (3)
- h. Outline **THREE** main purposes of social housing. (3)

(Total: 20 marks)

3. All sewage generated in the Maltese Islands is collected through an improved sewerage network and treated by three main sewage treatment plants (STPs).

(<https://era.org.mt/topic/urban-waste-water-directive/>)

- a. Identify the **THREE** locations of the sewage treatment plants in Malta. (3)
- b. Outline in **THREE** main steps how sewage is treated in these plants. (3)
- c. List **FOUR** types of water waste from the Maltese households that end as sewage. (2)
- d. State **TWO** uses of second-class water in Malta. (2)
- e. List **FOUR** practices that a Maltese household can implement to decrease the amount of sewage produced. (4)

The hospitality industry is also a culprit of water waste generation.

- f. Explain, giving **THREE** examples, how the hospitality industry can reduce the amount of water waste generated. (3)
- g. Identify **THREE** practices how a guest in a hotel can reduce the amount of sewage produced. (3)

(Total: 20 marks)

4. Frank is a 40-year-old single lawyer who is thinking of renovating his home kitchen.
- a. Personal influence is one of the factors that will influence Frank's choice of kitchen. Identify the other **FOUR** factors. (2)
 - b. Outline **TWO** of the factors identified in part (a), including **TWO** examples of **each** which are relevant to Frank's new kitchen. (4)
 - c. List **FOUR** sources of information which would help Frank in his kitchen renovation. (2)
 - d. Outline **ONE** advantage and **ONE** disadvantage of **TWO** sources of information listed in part (c). (4)

Consumers require clear information to make informed decisions as to what to purchase. In advertising, consumers have the legal right to be provided with accurate information on the products or services offered for. *(Times of Malta, 2021)*

- e. List **FOUR** features of a misleading advert. (4)
- f. Name **ONE** entity in Malta which helps to regulate misleading advertising. (1)
- g. Outline **THREE** ways how the entity mentioned in part (f) protects the consumer. (3)

(Total: 20 marks)

5. Consumers are concerned about the environment and how their own actions contribute to environmental quality.

(<https://www.oecd.org/env/consumption-innovation/informationandconsumerdecision-makingforsustainableconsumption.htm>)

- a. Define the term sustainability. (1)
- b. Suggest **THREE** practices that contribute to being a green consumer. (3)
- c. Identify **THREE** ways how a family can be sustainable when buying food products. (3)
- d. State how a green consumer can practice the 3 R's, by giving **TWO** examples for **each**. (6)
- e. Describe how through a person's individual choices, the following can be conserved:
 - i. energy; (1)
 - ii. soil; (1)
 - iii. limestone. (1)
- f. Outline **ONE** strategy that can help to conserve potable and non-potable water:
 - i. in the home; (1)
 - ii. on a national level. (1)
- g. Justify, giving **TWO** reasons, why sustainable actions help make a difference in society. (2)

(Total: 20 marks)

Please turn the page.

6. Tobacco is an addictive substance and smoking often starts in adolescence, before the development of risk perception. *(World Health Organisation, 2023)*

- a. Suggest **FOUR** reasons why the use of tobacco often starts in adolescence. (4)
- b. Outline **TWO** physical effects of tobacco use on the adolescent. (2)
- c. Explain **TWO** of the implications of tobacco use on the adolescent's family. (2)
- d. State **THREE** ways in which the family environment can prevent adolescents from developing unhealthy habits. (3)

The UK government is set to introduce historic new law to protect future generations of young people from the harms of smoking. The new law is to stop children who turn 14 this year or younger from ever legally being sold cigarettes in England, in a bid to create the first 'smokefree generation'. *(gov.uk, October 2023)*

- e. Justify **TWO** reasons why such law is very important on a national level. (4)
- f. Describe **THREE** possible effects of tobacco use on the quality of life. (3)
- g. Identify and outline **ONE** service available locally to help tobacco users. (2)

(Total: 20 marks)



SUBJECT:	Home Economics and Human Ecology
PAPER NUMBER:	II
DATE:	29 th April 2024
TIME:	9:00 a.m. to 12:05 p.m.

ANSWER ANY FIVE QUESTIONS (20 marks each)

1. Carbohydrates are one of the macronutrients required by our body.
 - a. Outline **FOUR** roles of carbohydrates in the diet. (2)
 - b. Assess **FOUR** negative impacts of a long-term high carbohydrate diet. (2)
 - c. Compare simple and complex carbohydrates. (2)
 - d. Explain the formation of disaccharides and polysaccharides from monosaccharides. Diagrams may be used to substantiate your answer. (2, 2)
 - e. Outline the chemical and physical changes that occur to the structure of carbohydrates when baking cookies. (4)
 - f. Give a detailed analysis of the physical and chemical digestion, as well as the absorption of a sugary biscuit, highlighting the body organ/s and enzymes involved at **each** stage. (6)

(Total: 20 marks)***Please turn the page.***

2. Maintaining an appropriate energy balance is essential for sustaining a healthy body weight.
- a. Define energy balance. (1)
 - b. Explain the relationship between weight and energy balance. (2)
 - c. Identify **SIX** factors that determine the energy requirements of individuals. (3)
 - d. Suggest **TWO** criteria by which a healthy body weight can be defined. (2)
 - e. Outline how a person's body weight can be assessed and monitored over time. (1)
 - f. Analyse the changing energy needs with regards to the level of activity, rate of growth and body size in **each** of the following life cycle stages:
 - i. babies 0 to 1 year; (1)
 - ii. toddlers up to 2 years; (1)
 - iii. toddlers up to 3 years; (1)
 - iv. children 4 to 5 years. (1)
 - g. Give **THREE** justifications for an increase in energy requirement during pregnancy and lactation. (3)
 - h. National efforts are being made to address the overweight and obesity status across the various Maltese age groups. Evaluate **TWO** economic and **TWO** social benefits of such national efforts. (2,2)

(Total: 20 marks)

3. One of the Maltese Healthy Plate Guidelines suggests using cooking methods such as steaming, baking, boiling, grilling or microwaving rather than frying.
- a. Compare dry and moist methods of cooking and identify **ONE** example of dry and moist methods, using the methods mentioned above. (1,1)
 - b. Evaluate the effects of dry and moist cooking methods on the appearance, taste, smell and texture of cooked food. (4)
 - c. Suggest the most appropriate method of cooking for the following. For **each** cooking method chosen, analyse the effects on texture and nutrient content of food.
 - i. Chicken breast for a 4-year-old child recovering from a sore throat. (1,2)
 - ii. Fish for an elderly person who has problems with chewing and swallowing. (1,2)
 - iii. Broccoli to be served as a side-dish for a pregnant woman. (1,2)
 - d. Explain **THREE** scientific principles involved when cooking food in a microwave oven. (3)
 - e. Outline **TWO** precautions that should be followed to ensure safe use of the microwave oven. Justify **each** precaution outlined. (2)

(Total: 20 marks)

4. Jane is a 70-year-old woman who has been diagnosed with diverticulosis.
- a. Define diverticulosis and explain how it develops. (1,2)
 - b. Highlight, giving reasons, **FOUR** of the main nutritional needs for this elderly woman. (4)
 - c. Suggest **ONE** main meal suitable for this elderly woman, underlying its nutritional value. (1,1)
 - d. Jane's niece, Alice, has been suffering from Type 1 Diabetes since she was 5 years old.
 - i. Differentiate between Type 1 and Type 2 diabetes. (2)
 - ii. Justify why Type 1 Diabetes is considered as an autoimmune disease. (1)
 - iii. Describe **FOUR** complications that may arise due to diabetes. (4)
 - iv. Suggest **TWO** dietary and **TWO** non-dietary recommendations for diabetic people. (2,2)

(Total: 20 marks)





5. In 2022, a total of 781 food poisoning cases were reported to the health authorities, a major increase from the 486 registered in 2019. *(Times of Malta, 27th January 2023)*
- a. Name **SIX** pathogenic bacteria which may cause food poisoning. (3)
 - b. Choose **TWO** of the pathogenic bacteria named in part (a) and for **each** microorganism:
 - i. identify **TWO** food sources; (2)
 - ii. outline **TWO** symptoms that may be experienced if food poisoning occurs. (2)
 - c. Suggest **TWO** basic strategies for safe food handling when:
 - i. Transporting fresh beef steaks for a barbecue by the beach in July. (2)
 - ii. Buying potatoes from a local farmer and preparing a potato salad for a family picnic. (2)
 - iii. Buying fresh eggs from a supermarket. (2)
 - d. Outline what the abbreviation HACCP stands for, listing the **SEVEN** principals involved in this system. (4)
 - e. Justify the vital role of a HACCP system in the food catering industry. (1)
 - f. Differentiate between the **TWO** types of Food Handlers Certification that are legally required in Malta. (2)

(Total: 20 marks)

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6. If you sell food or beverages in the EU, you must provide essential information on the package which should be accurate, easy to understand, not misleading and cannot be tampered with. *(<https://europa.eu/>)*

- a. Justify the above statement by giving **TWO** reasons why food labelling is mandatory in the European Union. (2)
- b. Outline **SIX** types of information, other than the use by and best before date, that should be included on a food product being sold locally. (3)
- c. Differentiate between the use by date and the best before date. (2)
- d. Identify the labels below and outline the purpose of **each** label. (4)

i.	 <p>https://www.europarl.europa.eu/</p>	ii.	 <p>https://www.wwf.de/</p>
iii.	 <p>https://www.italianfoodexcellence.com/</p>	iv.	 <p>https://www.esdaw.eu/</p>

- e. Outline **THREE** ways how claims found on food labels impact consumers' food choice and health. (3)
- f. Give a critical interpretation of the following Health Claims commonly found on food labels:
 - i. sugar-free; (1)
 - ii. low salt; (1)
 - iii. with no added sugars. (1)
- g. Sustainable consumers are conscious about reducing food miles. Define the term food miles and give **TWO** examples as how these can be reduced. (1, 2)

(Total: 20 marks)