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SUBJECT: **Home Economics & Human Ecology**  
DATE: 29<sup>th</sup> April 2024  
TIME: 9:00 a.m. to 12:05 p.m.

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**SECTION A**

**Answer ALL questions.**

1. (a) List **TWO** common symptoms of a peanut allergy.  
(b) Name **ONE** challenge faced by teenagers with nut allergies, especially in social situations.  
(c) Suggest **ONE** strategy to overcome the challenge mentioned in (b). (1, 1, 1)
2. The European Union (EU) adopted a directive which banned the sale of certain single-use plastic items.  
*(<https://environment.ec.europa.eu/>)*  
(a) List **TWO** measures one can take to avoid the use of single-use plastic when organising an event for a large group of people.  
(b) Outline **TWO** strategies which help manage waste (other than separation at source) that are implemented in Malta. (2, 2)
3. Outline **THREE** positive effects the choice of a trustworthy childcare centre may leave on the development of children. (3)
4. Diverticulitis is a diet related condition which quite often may come about when colon health is neglected. Describe diverticulitis and outline **THREE** actions that can be pursued to prevent this condition. (1, 3)
5. Mixed-race families are on the rise in Malta. List **TWO** ways how these families are leaving a positive effect on Maltese family life. (2)
6. Outline **TWO** hygienic practices which need to be followed while purchasing and storing food. (2, 2)
7. (a) Explain the term energy value that is found in food.  
(b) Identify **TWO** foods that have a high energy value and **TWO** foods that have a low energy value. (1, 1, 1)
8. Anorexia and bulimia nervosa are on the increase among teenagers.  
(a) Differentiate between these two eating disorders.  
(b) Describe **TWO** reasons why these disorders are more common in teenage years. (2, 2)
9. (a) Keeping the graphical representation of The Healthy Plate in mind, suggest the recommended daily serving of cereals for Maltese adults.  
(b) Describe **TWO** ways how one can follow the dietary guidelines when consuming cereals. (1, 2)
10. (a) Give the scientific name of Vitamin C.  
(b) Describe **TWO** effects on the body when Vitamin C is deficient.  
(c) Name **TWO** rich sources of Vitamin C in the diet. (1, 2, 1)
11. (a) Explain lactose intolerance.  
(b) List **TWO** foods that contain lactose.  
(c) Identify **TWO** common symptoms of this condition. (1, 1, 1)

**Please turn the page.**

12. The prevalence of snacking may have negative effects on one's health.
- Define snacking.
  - Give **TWO** reasons why snacking is popular.
  - Suggest **TWO** negative effects of snacking on one's health. (1, 1, 1)

**(Total: 40 marks)**

## SECTION B

Answer **ANY THREE** questions.

- Proteins are large, complex molecules that play many critical roles in the body.
  - Identify **FOUR** functions of protein in the body and name **FOUR** rich food sources of protein common in the Mediterranean diet. (2, 2)
  - All proteins are composed of amino acids. Identify the two main groups of amino acids and outline the difference between them. For each group, name **TWO** examples. (1, 2, 2)
  - Tom's daughter, Alice, is a picky eater and often refuses food which contain protein sources of animal origin. Tom is very worried that his daughter might not be consuming enough proteins.
    - Explain why proteins are especially important for children. (2)
    - Identify **TWO** plant-sources of food rich in high biological value protein which Tom can introduce to his daughter. (1)
    - Plan an interesting two-course dinner menu rich in the plant-sources of protein you identified in part c.(ii.) above which Tom may prepare for his daughter to ensure an adequate intake of this macronutrient. Justify your choice of food. (2, 2)
    - Protein-rich foods are more susceptible to food poisoning. Suggest **FOUR** strategies which Tom should follow to reduce the risk of food poisoning when preparing Alice's dinner. (2)
    - Briefly explain why Alice's carbon footprint might be lower than someone who consumes more animal sources of protein. (2)

**(Total: 20 marks)**

- Emma is a single-mother of two young boys and she recently decided to start doing her shopping online.
  - Justify, by giving **TWO** reasons, why online shopping is becoming ever so popular. Highlight and outline **TWO** consumer rights pertaining to this type of shopping. (2, 2)
  - Emma bought an electric kettle through an online website and paid for the appliance by a local debit card.
    - Define the term debit card. (1)
    - Give **TWO** advantages and **TWO** disadvantages of this type of card. (2, 2)
    - Emma could have also paid for the electric kettle using cash upon delivery or through online bank transfer. For each of these methods, give **TWO** advantages and **TWO** disadvantages. (2, 2)
  - Consumer goods and services are protected by guarantee. List the **TWO** types of guarantees available locally. Describe their function highlighting the legal provision of each type of guarantee. (1, 2)
  - Sometimes consumers need to approach the Consumer Association. Describe the **FOUR** areas of activity which the Consumer Association focuses on. (4)

**(Total: 20 marks)**

3. Elizabeth and Joseph are married, both work and have a career. They have two children; a five-year-old girl and a two-year-old boy.
- Name **TWO** responsibilities that Elizabeth and Joseph have towards their children and **TWO** responsibilities that they have towards each other as partners. (1, 1)
  - List **FOUR** family-friendly measures that they could opt for to have healthy family relationships while keeping their jobs and continue earning money. (2)
  - Choose **TWO** of the family-friendly measures mentioned in part (3b) above and give an outline of each. (2)
  - During the weekends, Elizabeth and Joseph take their children to the playground for some physical activity and quality time. Identify **SIX** child safety aspects that they should look for when choosing a playground for their children. (3)
  - While driving and walking towards the playground, Elizabeth needs to take other measures as well as teach her children outdoor safety.
    - Identify **TWO** measures which she needs to take during their journey while in the car to the playground. (1)
    - Highlight **TWO** points that she needs to teach her children while walking in the street towards the playground. (1)
    - Name **TWO** reasons why it is important to provide a stimulating environment, such as the playground, for their two-year-old son while he is playing. (2)
  - Elizabeth and Joseph feel that they have a lot to offer, so they would like to help a child in need. They contacted Aġenzija Appoġġ so that they can see what services they have available in this regard.
    - Identify **TWO** services which Elizabeth and Joseph can apply for with Aġenzija Appoġġ to fulfil their wishes. (2)
    - List **TWO** similarities and **TWO** differences of the two services mentioned in the part (f. i) above. (2, 2)
    - Outline **TWO** emotional needs which a child could benefit of through the help of Elizabeth and Joseph. (1)

**(Total: 20 marks)**

4. Manuel has lately increased drastically in weight and went to seek help from a qualified nutritionist to make changes to his diet.
- The first thing the nutritionist suggested was to lower his fat consumption, especially saturated fats. Using diagrams, represent the chemical composition of saturated and unsaturated fatty acids. (4)
  - Outline **TWO** differences between saturated and unsaturated fatty acids. (1,1)
  - State **THREE** functions of fat in the body. (3)
  - Explain what trans fats are and describe their effect on our health. (1,1)
  - List **FOUR** food products that contain trans fatty acids. (2)
  - Manuel's nutritionist also suggested that to lose weight he needs to increase his fluid intake. Apart from weight loss, outline **THREE** other basic functions of water in the human body. (3)
  - Write down the recommended daily fluid intake for adults. (1)
  - Manuel drinks a lot of soft drinks which are very high in sugar as he thinks that water is tasteless. Outline **THREE** ways how he may increase his fluid intake without increasing the sugar intake. (3)

**(Total: 20 marks)**