



SUBJECT: **Home Economics & Human Ecology**
DATE: 29th April 2019
TIME: 9:00 a.m. to 12:05 p.m.

SECTION A

Answer ALL questions.

1. i. State the **FOUR** main chemical elements found in proteins. (2)
ii. Name **TWO** foods which obese lacto-vegetarians could consume to ensure an adequate intake of high quality protein without contributing to their weight problem. (1)
2. Explain how disaccharides and polysaccharides are formed, and give **TWO** examples of disaccharides. (2, 1)
3. Outline **THREE** dietary strategies that could be adopted by an individual, whose family medical history includes diverticular disease, to ensure colon health. Justify your choice. (3)
4. A common diet-related condition amongst elderly women is osteoporosis. Give the cause and development of this health condition. Name and explain the function of **TWO** essential nutrients that will delay the onset of this condition. Give **ONE** non-dietary measure which delays the onset of osteoporosis. (1, 2, 1)
5. Outline **THREE** factors which should be considered when buying an eco-friendly refrigerator or freezer. (3)
6. A person with limited mobility has opted for *telebanking* and *Internet banking* to conduct her banking transactions. Define the terms in italics, and outline **THREE** advantages of Internet banking for this person. (2, 3)
7. Describe **TWO** services offered by the State to elderly persons living independently in their own home, explaining how each of the named services can be of benefit to these individuals. (2)
8. Outline **THREE** factors, apart from economic ones, to be considered by a breastfeeding mother when choosing a childcare centre for her infant. (3)
9. State **TWO** consumer rights and **TWO** consumer responsibilities when purchasing goods or services. (2, 2)
10. Define the terms organic and inorganic waste, and give **ONE** example of each. (2, 1)
11. Explain the benefits of fats found in nuts in relation to heart health. Name **FOUR** types of nuts. (2, 2)
12. The incidence of mixed race families is on the increase in Malta. Explain how this situation could positively affect such families or others in bringing up children. (3)

(Total: 40 marks)

SECTION B**Answer ANY THREE questions.**

1. Diet-related diseases or disorders such as obesity, bulimia and anorexia nervosa are a result of an imbalance in energy intake and output. A local study conducted in May 2018, reveals that 40% of Maltese school children are obese.

Source: <http://www.independent.com.mt/articles/2018-05-19/local-news>

- a) Define energy imbalance. (1)
- b) Justify the high rates of overweight and obesity among Maltese children, and state **TWO** possible health effects in the long-term. (4, 2)
- c) Discuss the role of parents in preventing childhood obesity in terms of helping children:
- i. develop healthy eating habits; (3)
 - ii. engage in physical exercise. (3)
- d) Discuss **THREE** strategies which local fast food outlets have adopted or could adopt to ensure an adequate choice of food items to cater for young individuals who aim to maintain a good weight or reduce their weight. (3)
- e) Define the term Body Mass Index (BMI), and identify the numerical range values for being overweight and obese. (1, 1)
- f) Discuss **TWO** negative implications if a breastfeeding mother does not increase her energy input. (2)

(Total: 20 marks)

2. Micronutrients have important roles in the body. A balanced diet usually provides all of these essential micronutrients.
- a) Define micronutrients and give the units in which they are recommended. Explain how a person may be lacking such nutrients in the body. (1, 1, 1)
- b) Calcium, iron, sodium, phosphorus and potassium are essential minerals. For **FOUR** of these minerals identify:
- i. a role of the nutrient in the body;
 - ii. **TWO** food sources;
 - iii. a deficiency. (3, 3, 3, 3)
- c) Give **TWO** examples how vitamins could enhance the bioavailability (absorption) of minerals. (2)
- d) Vegans risk being deficient in Vitamin B₁₂. Give the scientific name of Vitamin B₁₂. Name a deficiency symptom of Vitamin B₁₂. Outline the danger of taking vitamin supplements without a medical prescription. (1, 1, 1)

(Total: 20 marks)

3. A young mother bought a musical baby cot mobile from an online European website.
- a) List **THREE** advantages and **ONE** disadvantage for the mother when buying items online over visiting local retail outlets. (3, 1)
 - b) Outline **THREE** security measures the mother should follow when buying from online websites. (3)
 - c) The musical baby cot mobile has a commercial guarantee.
 - i. What is the difference between a legal guarantee and a commercial guarantee? (1)
 - ii. What information is likely to be found in a guarantee? (2)
 - iii. For how long is a legal guarantee valid? (1)
 - d) Upon receiving the musical mobile, the mother realised that it was faulty as the music was not clear.
 - i. Describe a method of redress the mother could seek to deal with this mishap. (1)
 - ii. List **TWO** documents she should present when making her complaint. (2)
 - iii. Suggest **ONE** strategy she could use to show proof of the damage. (1)
 - e) The mother needs further assistance to deal with this matter from the European Consumer Centre (ECC), which forms part of the European Consumer Centres Network (ECC-Net). Outline the role of the ECC. (2)
 - f) If the musical baby cot mobile was good, explain **TWO** strategies that the mother should follow to ensure her child's safety. (2)
 - g) Name **ONE** label that the mobile should have to show that it satisfies safety regulations. (1)

(Total: 20 marks)

4. A middle-aged couple intends to purchase an eco-friendly washing machine.
- a) Give **TWO** advantages of using printed material such as newspapers and **TWO** disadvantages of using the radio as sources of information. (2, 2)
 - b) Outline **TWO** benefits of buying an eco-friendly washing machine, other than saving water, for:
 - i. the couple; (2)
 - ii. the environment. (2)
 - c) Suggest **TWO** strategies that the couple could implement to save water. (2)
 - d) How would a washing machine contribute to the wellbeing of the middle-aged couple? (2)
 - e) Identify **TWO** methods of payment, which are not stressful, that the couple could use to pay for the washing machine. Give **ONE** reason for each choice. (2, 2)
 - f) Suggest **ONE** way how the couple could dispose of their old washing machine responsibly. Justify your choice. (1, 1)
 - g) To take care of their garments, it is recommended that textile care labels are checked. Name **FOUR** care symbols that are found on textile labels. (2)

(Total: 20 marks)