



SUBJECT:	<b>Home Economics and Human Ecology</b>
PAPER NUMBER:	I
DATE:	14 <sup>th</sup> December 2020
TIME:	4:00 p.m. to 7:05 p.m.

**ANSWER ANY FIVE QUESTIONS (20 marks each)**

1. The evolution of the family structure has led to the rejection of the Maltese 'traditional' family and welcomed new structures which are better suited to today's lifestyle and values.
  - a. The family unit can be structured in many different ways.
    - i. Define a family unit. (1)
    - ii. Outline **THREE** changes in the family unit structure, mentioning at least **ONE** implication of such change. (6)
    - iii. Identify **TWO** family-friendly measures that were introduced to support the changes in family structures. (2)
    - iv. Provide **TWO** arguments in favour of these family-friendly measures. (2)
  - b. Adoption and fostering are two methods of welcoming and taking care of a child into one's home.
    - i. Explain the difference between adoption and fostering. (2)
    - ii. Which organisation in Malta is in charge of fostering services and state its main role? (1, 1)
    - iii. Describe **TWO** ways how those individuals or families intending to adopt from Malta or from a foreign country are supported. (2)
    - iv. Outline **THREE** basic needs that the new family should provide to the new family member. (3)

**(Total: 20 marks)**
  
2. Quality of life is considered as an individual's satisfaction with different life spheres. All the family members' well-being is crucial to ensure a family's good quality of life.
  - a. Identify **SIX** indicators that show a family's good quality of life. (3)
  - b. Outline **TWO** strategies that the individual can do and **TWO** strategies that the family can carry out to promote a family's good quality of life. (2, 2)
  - c. State **THREE** ways how a family as a group can make efficient use of resources and share responsibilities to help avoid unnecessary stress on any specific family member. (3)
  - d. In Malta, strong value communities and family ties make poverty and social exclusions rarer than other countries. Yet, the changes in family and individual values we have been experiencing in recent years are leading to more cases of poverty as well as social exclusion.
    - i. Identify **TWO** groups of people who might be at risk of poverty. (2)
    - ii. Explain, including **FOUR** reasons, why these groups of people have a higher possibility of falling into the poverty trap. (4)
    - iii. In Malta, there are different state agencies that help and protect people who are at risk of poverty and social exclusion. Identify **TWO** of these state agencies and outline their main role. (2, 2)

**(Total: 20 marks)**

3. Worldwide, the number of people over the age of sixty is growing faster than any other age group. Hence, active ageing is now regarded as a necessity and not a luxury.'  
(WHO- Active ageing)
- a. Explain active ageing. (2)
  - b. Suggest **TWO** ways how active ageing can benefit the individual and **TWO** ways how it can benefit the local community. (2, 2)
  - c. Give **TWO** advantages and **TWO** disadvantages of an elderly family member taking care of a young relative or child. (2, 2)
  - d. One of the challenges when retiring from work is to remain financially self-sufficient. Suggest **TWO** ways how an individual can prepare financially for old age. (2)
  - e. The concept of living independently is opted by a number of elderly. Mention **TWO** reasons why elderly would prefer to live alone. (2)
  - f. As people grow older, homes need to be adapted to cater for the changing needs and ensure safety. Give **FOUR** housing features required to prevent accidents for senior citizens living independently. (2)
  - g. Two other living arrangements for senior citizens are living with relatives or living in a residential home. Identify **ONE** advantage and **ONE** disadvantage for the elderly when choosing each of these living arrangements. (2, 2)
- (Total: 20 marks)**

4. "In 2017, 44.1 % of all inhabited dwellings in Malta and Gozo were either detached, semi-detached or terraced houses. The remaining 55.9 % of inhabited dwellings were in the most part either apartments or maisonettes."  
(NSO, 11 October 2018)
- a. "Home ownership was the most common type of tenure status in 2017, with 78.2 % of all households owning their main dwelling."  
(NSO, 11 October 2018)
    - i. Justify, giving **TWO** reasons, why you think that the majority of the Maltese prefer to own their home. (2)
    - ii. Outline the **TWO** ways of acquiring a home and mention **ONE** advantage and **ONE** disadvantage of each. (2)
  - b. Outline **FOUR** factors that influence the choice of locality for a family consisting of two parents and three children. (4)
  - c. There are different ways of finding out the available dwellings on the market. Identify **THREE** sources of information and state **ONE** advantage and **ONE** disadvantage of each. (3, 3)
  - d. The government has been providing social housing for many decades. However, the social housing waiting list keeps rising.  
(Times of Malta, 30<sup>th</sup> April 2019)
    - i. Explain social housing and list **TWO** schemes available. (2, 2)
    - ii. Identify **TWO** persons who may be eligible for social housing. (2)
- (Total: 20 marks)**

5. Mother earth is currently facing a number of global environmental concerns, mainly due the changes in our behaviour and lifestyle.
- a. Identify **THREE** global environmental concerns. (3)
  - b. Choose **TWO** global environmental concerns from those identified in part a. and state **TWO** causes of these concerns and **TWO** ways how we can counteract them. (4)
  - c. Outline **THREE** renewable energy forms used locally. (3)
  - d. Identify **ONE** positive effect in the household and **ONE** positive impact on a national level of alternative forms of energy production. (2)
  - e. "Exposure to indoor and outdoor air pollutants may increase an individual's risk for morbidity and mortality. Air pollution may also cause sensory irritation and decrease well-being."  
*(<https://www.pulmonologyadvisor.com-air-pollution>)*
    - i. Identify **TWO** outdoor and **TWO** indoor pollutants. (1, 1)
    - ii. Outline **ONE** economic and **ONE** health implications of these pollutants. (1, 1)
    - iii. Suggest **TWO** ways to reduce outdoor and **TWO** ways to reduce indoor pollutants mentioned in part e.i. (2, 2)
- (Total: 20 marks)**
6. John is currently conducting a market research as he needs to buy a new washing machine for his family of three.
- a. Identify **TWO** environmental considerations John should keep in mind in order to be a green consumer when buying the washing machine. (2)
  - b. Name **SIX** factors that might influence John's choice of a washing machine, other than environment related influences. (3)
  - c. The washing machine comes with two types of guarantees. Identify the **TWO** types of guarantees and then highlight **FOUR** main differences between the two. (1, 4)
  - d. After using the washing machine for a month, the digital control panel stopped working. John decided to visit the shop in person and file a complaint with the retailer.
    - i. Mention **TWO** other methods of redress that John can use. (2)
    - ii. Outline **FOUR** points John should keep in mind when redressing in person. (4)
    - iii. Discuss, giving **TWO** advantages, why redressing in person is advantageous. (2)
    - iv. Justify the importance of the Consumer Claims Tribunal, should John not reach an agreement with the retailer. (2)
- (Total: 20 marks)**




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TIME:	4:00 p.m. to 7:05 p.m.

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**ANSWER ANY FIVE QUESTIONS (20 marks each)**

1. "High blood pressure accounts for more heart disease and stroke deaths than all other preventable causes, except smoking. – John Warner, UT Southwestern Medical centre."  
*(independent.com.mt, 27<sup>th</sup> July 2018)*
- Define hypertension and explain how it develops in the body. (1, 3)
  - Outline **FOUR** symptoms that may be experienced by individuals with high blood pressure. (2)
  - Suggest **TWO** dietary and **TWO** non-dietary measures to reduce hypertension. (1, 1)
  - Two minerals which are associated with hypertension are sodium and potassium. For each of these minerals, give **ONE** function in the body and identify **THREE** significant food sources. (1,1,1½, 1½)
  - One of the most serious health problems related to untreated high blood pressure is Coronary Heart Disease. Omega-3 and Omega-6 fatty acids can be beneficial to maintain heart health.
    - What is the difference between Omega-3 and Omega-6? (2)
    - Outline **FOUR** benefits of consuming these omega fatty acids. (2)
    - Identify **THREE** food sources for each of the fatty acids. (3)
- (Total: 20 marks)**
2. In recent years, the term superfood has been used as a marketing phrase to increase the sales of certain foods with specific health benefits. Such term has been particularly used to promote foods which are rich in antioxidants.
- Explain, in detail, the role of antioxidants in the human body. (2)
  - List the chemical name of the vitamins which have antioxidant properties. (1)
  - For each vitamin mentioned in part b.:
    - state **ONE** other function in the body; (3)
    - highlight **TWO** deficiency symptoms; (3)
    - list **TWO** significant food sources. (3)
  - Justify the following statements with a scientific reason.
    - Antioxidants help the body avoid the bad effects of air pollution. (1)
    - People who eat more fruit and vegetables have a lower risk of cancer. (1)
    - For many years, turmeric has been used as an anti-inflammatory ingredient. (1)
  - Some people tend to make use of supplements in order to ensure their daily recommended nutrient intake. Discuss **TWO** arguments in favour of and **TWO** arguments against the use of supplements. (2, 2)
  - Suggest, giving **ONE** valid reason, a group of people who might need to use supplements in their diet. (1)
- (Total: 20 marks)**

3. Maltese traditional cuisine consists of typical Mediterranean recipes, using locally available staples and seasonal foods.
- Maltese traditional food is considered as an important part of our heritage. Give **TWO** reasons how Maltese traditional food promotes our identity. (2)
  - One of Malta’s most popular dish is Baked Rice. Outline **TEN** modifications that can be made to the following traditional recipe to make it suitable for individuals on a weight reducing diet. Each modification has to be supported by nutritional justification. (5)

<b>Recipe for Baked Rice</b>	
400 g white rice	2 eggs
200 g corned beef	Evaporated milk
20 g butter	A canned tin of peas
A tin of tomatoes	A canned tin of carrots
A stock cube	1 small onion and some garlic
50 g tomato paste	100 g grated Parmesan cheese
100 g bacon	Salt and pepper

- The Maltese cuisine promotes the reduction of food miles. Define food miles and give **FOUR** examples how these can be reduced when planning traditional meals. (1, 2)
- The nutrient content of food can easily be lost whilst buying, storing, preparing, cooking and serving a home-made Minestra soup using fresh produce. Outline **TWO** strategies how to ensure the maximum content and retention of nutrients whilst:
  - buying;
  - storing;
  - preparing;
  - cooking;
  - serving a home-made soup. (5)
- Many traditional meals are now available in the frozen section of supermarkets.
  - Suggest **TWO** arguments in favour of having these traditional recipes available as frozen dishes. (2)
  - Compare **THREE** ways how the nutritive value of these convenient meals differs from the traditionally cooked meal. (3)

**(Total: 20 marks)**

4. Carmen is a 55-year-old woman who has been diagnosed as coeliac.
- What does being coeliac mean? (1)
  - What are the causes and effects of being coeliac and list **TWO** common symptoms of coeliac disease in the body. (2, 1)
  - Carmen loves hosting tea parties for her friends, but she is now finding it very difficult to find suitable food she can enjoy during such events.
    - State **TWO** factors she needs to consider when planning such events. (2)
    - Suggest **FOUR** food items suitable for a tea party which Carmen can include in her next event. (2)
  - Give a scientific reason why the following statements are false.
    - Coeliac disease is a type of food allergy. (2)
    - Coeliac disease can only be diagnosed in children. (2)
    - Coeliac disease can be treated with medicine. (2)
  - Carmen would like to invite her daughter Amanda, who is 6 months pregnant, to her home for dinner. Plan a 3-course meal which both Carmen and Amanda can enjoy. Present a nutritional analysis of your menu to explain how it can still meet Amanda's various nutritional needs as a pregnant woman. (2, 4)
- (Total: 20 marks)**
5. With almost a third of the Maltese population being considered obese, many people seem to be trying different ways how to lose weight by following fad diets, including Keto, Atkins and Paleo, amongst many others.
- Define fad diets and justify why these trends are normally more popular with young adults. (1, 1)
  - Outline **FOUR** characteristics of fad diets. (2)
  - Predict, with a valid reason, **THREE** health repercussions which a person might suffer from if s/he follows a fad diet for a long time. (3)
  - In order to tackle the increasing problem of obesity, the Maltese authorities came up with the nutritional goals and dietary guidelines.
    - The nutritional goals and dietary guidelines for the Maltese nation are updated from time-to-time. Justify this statement. (1)
    - Outline the function of the Maltese dietary guidelines from the perspective of the general public, health professionals and policy-makers. (3)
    - Explain the difference between the Healthy Plate and Dietary Guidelines. (1)
    - With reference to the Maltese dietary guidelines, list **SIX** dietary and **FOUR** non-dietary measures which young adults can adopt in order to lose weight without resorting to fad diets. (3, 2)
  - 'A healthy weight for life' is an example of a national project to address the overweight and obesity status across the various Maltese age groups. Outline **THREE** economic and **THREE** social benefits of such projects. (3)
- (Total: 20 marks)**

**Questions continue on next page**

6. Food additives are chemicals added to food products which are required to be declared on the label.
- a. Explain the difference between natural and artificial food additives. List **TWO** examples of natural additives. (2, 1)
  - b. Describe **TWO** functions of additives in food. (1)
  - c. Explain how the European Union controls the use of additives in food. (1)
  - d. Emulsifiers, stabilisers and preservatives are all types of additives used in the food industry. Distinguish between the function of each type of additives. (3)
  - e. Apart from additives, food labelling includes other important information.
    - i. Explain the difference between a health claim and a nutrient-content claim. (1)
    - ii. Outline **THREE** ways how claims on food labels impact consumers' food choice and health. (3)
    - iii. Choose **THREE** of the following statements frequently found on food labels and explain the food's health benefit for each. (6)
      - Contains plant sterols.
      - Enriched with probiotics.
      - Free from trans-fatty acids.
      - Enriched with Omega-3.
  - f. Once a food product has been packaged and labelled, it can move on to being transported to the consumer. Outline **FOUR** measures which need to be adopted by food transport companies so as to ensure that maximum hygiene and safety standards are attained. (2)

**(Total: 20 marks)**