

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE EXAMINATIONS BOARD
UNIVERSITY OF MALTA, MSIDA
MATRICULATION EXAMINATION
INTERMEDIATE LEVEL
MAY 2016

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| SUBJECT: | HOME ECONOMICS & HUMAN ECOLOGY |
| DATE: | 27 th April 2016 |
| TIME: | 4:00 p.m. to 7:05 p.m. |

SECTION A

ANSWER ALL QUESTIONS (Total 40 marks)

1. List **TWO** negative health impacts of consuming ready-made soups regularly. Outline **FOUR** ways how ready-made soup mixes can be enriched nutritionally when used in an emergency. (2, 2 marks)
2. Quinoa and Kamut® (Khorasan wheat) are gaining popularity as super-grains. Give **TWO** reasons for their popularity amongst:
 - a) the general public;
 - b) coeliacs. (2, 2 marks)
3. Outline the difference between *major minerals* and *trace elements*. Fluoride and Iodine are both trace elements. For **EACH** of the **TWO** minerals mentioned, suggest the main function and **ONE** dietary source. (1, 2, 1 mark)
4. Essential fatty acids have a vital role in the human body.
 - a) Explain the role of essential fatty acids.
 - b) Outline the different types of essential fatty acids, naming **TWO** food sources for each type. (1, 1, 2 marks)
5. Explain the term *fortification* in food production. Outline **TWO** reasons why food is fortified. Name **ONE** food which is fortified, and identify **ONE** nutrient involved. (1, 2, 1 mark)
6. The Malta 2011 census has revealed that there are more than 10,621 single parents in Malta, with a high incidence of these parents living in poverty or relative poverty (Malta Today, 23rd January, 2015). Discuss briefly **THREE** reasons why single parents with young children may be more at risk of living in poverty. (3 marks)
7. As people live longer, the prevalence of dementia is on the increase. Describe briefly **FOUR** implications dementia sufferers have on:
 - a) their families;
 - b) on the nation. (2, 2 marks)

8. Pregnant and lactating women have to ensure an adequate intake of vitamins and minerals in their diet.
- Suggest **TWO** reasons why pregnant women should consume plenty of Vitamin C rich foods.
 - Outline **ONE** reason why pregnant women should avoid taking Vitamin A supplements and should avoid eating liver.
 - Explain why newborn babies are given a Vitamin K injection. (2, 1, 2 marks)
9. Outline the positive impacts organic farming has on:
- human health;
 - the natural environment. (2, 2 marks)
10. Play has an important role in stimulating children's intellectual and emotional development.
- For **EACH** type of skill mentioned, identify **ONE** toy which would help children develop intellectually, giving **ONE** reason for your choice:
 - Learning to read new words;
 - Counting numbers;
 - Writing letters of the alphabet.
 - Explain how **ONE** other toy or activity of your choice could help an 8-year old child who lost his grandmother come to terms with the emotional trauma. (3, 1 marks)

SECTION B (60 marks)

ANSWER ANY THREE QUESTIONS

Question 1

The use of the Għallis Engineered Lanfill has been extended for a further six years.

(The Times of Malta, 29th Dec 2015)

- Explain the term *engineered landfill*. Outline **FOUR** types of waste that is accepted at this landfill and **FOUR** types of waste that is not permitted. (1, 2, 2 marks)
- Give **TWO** advantages of having an engineered landfill over a regular landfill where waste is dumped haphazardly. (2 marks)
- The widespread availability of Civic Amenity sites around Malta has positive impacts. Outline **TWO** advantages of these sites and list **FOUR** types of waste that can be disposed in these sites. (2, 2 marks)
- A number of localities have the collection of the organic waste bag.
 - Explain what can be disposed in this bag, and identify **FOUR** suitable waste items.
 - Outline the potential use of this organic waste. (1, 2, 1 marks)
- Describe **FIVE** ways how a family can work towards a *zero-waste household*. (5 marks)

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| Question 2 |
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- A.** Budgeting should be a priority to all individuals.
- Explain the term *budgeting* and outline the importance of budgeting. (1, 2 marks)
 - List the basic steps involved in working out a budget for an individual who has a full time employment. (5 marks)
 - Explain the importance of reviewing the budget periodically. (2 marks)
- B.** A young married couple recently had their first child. The mother, who is Maltese, is a full time clerk in the civil service, whilst the father is a foreigner and works in a factory on a shift basis.
- Explain how the new parents can share the household workload, with the new responsibilities brought about by the arrival of their new-born child. (4 marks)
 - Describe **THREE** ways how the arrival of the new child can help the foreign father integrate more in our local community. (3 marks)
 - Outline **THREE** benefits that the child can experience when having parents of different nationalities. (3 marks)

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| Question 3 |
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The majority of food-borne illnesses originate from homes, rather than from restaurants and catering establishments (The Malta Independent, Sunday 31st May 2015).

- Define the term *food-borne illness*. (1 mark)
- Suggest **THREE** reasons why food borne-illnesses may originate more readily from homes rather than from catering establishments. (3 marks)
- Salmonellosis and campylobacteriosis are the most commonly reported food-borne illnesses in the European region (WHO Regional Office for Europe, 2016). For **EACH** of the food-borne illnesses mentioned, list:
 - TWO** symptoms;
 - the incubation period;
 - TWO** associated foods. (2, 2, 2 marks)

Barbeques in the countryside are becoming popular on sunny days in autumn and winter. However one has to be careful to prevent food-borne illnesses during such outings.

- Suggest **TWO** ways how food contamination and food poisoning can be prevented when preparing and handling *vegetables* and *meat* in **EACH** of the following stages:
 - when preparing the food at home;
 - when transporting the food to the countryside;
 - while cooking the food;
 - while serving the food. (2, 2, 2, 2 marks)
- Suggest **TWO** steps that should be taken by the parent of a 4-year old child who shows symptoms of food poisoning. (2 marks)

Question 4

One of the aims of the recently published policy document: *A whole school approach to a healthy lifestyle: healthy eating and physical activity policy* (Ministry of Education and Employment, 2015) is to provide the necessary support “to help the school community to adopt healthier patterns of living by encouraging physical activity, promoting healthy foods and limiting the availability of products high in salt, sugar and fats.” (p.8)

- a) With reference to the term *energy balance*, explain how doing regular physical exercise may help children maintain a healthy weight. (2 marks)
- b) Identify and describe **TWO** long-term non-communicable diseases which obese children could suffer from later on in their lives. (4 marks)
- c) The above mentioned document states that studies have shown that childhood obesity is less in those children who eat breakfast. Suggest **TWO** other advantages that children benefit from when eating breakfast. Discuss briefly **ONE** economic related advantage and **ONE** social related advantage of the introduction of healthy breakfast clubs in primary schools for children and their families. (2, 4 marks)
- d) Canteens and tuck shops provide food for students during break time in most secondary schools. Outline **TWO** health related reasons why it is important that fruits and vegetables are made available to students, and suggest **ONE** reason why they should be sold at a reasonable price. (2, 1 mark)
- e) Name **TWO** food items or drinks other than fresh fruits and vegetables that should be made available in these canteens and tuck shops. Justify your suggestions by making reference to **ONE** nutritional or health benefit provided by **EACH** of the food items chosen. (1, 2 marks)
- f) Suggest **FOUR** changes that could be made to the classic *ham and cheese sandwich* in order to bring it in line with healthy eating guidelines. (2 marks)