

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE EXAMINATIONS BOARD
UNIVERSITY OF MALTA, MSIDAMATRICULATION EXAMINATION
INTERMEDIATE LEVEL
MAY 2014

SUBJECT:	HOME ECONOMICS & HUMAN ECOLOGY
DATE:	5th May 2014
TIME:	4.00 p.m. to 7.00 p.m.

SECTION A (40 marks)**ANSWER ALL QUESTIONS**

1. Two types of food spoilage are *microbial* and *chemical*. Define these italicised terms. List **TWO** causes for **EACH** of food spoilage. (2, 1, 1 marks)
2. Define 'sustainability' and outline **THREE** ways how consumers can make food choices to minimise climate change. (1, 3 marks)
3. All responsible consumers are protected by local legislation when buying goods and services. Give **TWO** rights and **TWO** responsibilities of consumers. (2, 2 marks)
4. Explain the term 'hypertension' and list **TWO** causes of this condition. Outline **TWO** dietary and **TWO** non-dietary preventive measures that can be adopted by children and young adults to lessen the chances of developing this condition. (2, 1, 1 marks)
5. Outline the difference between water-soluble and fat-soluble vitamins. Give the main role of the following vitamins: Pantothenic acid, Pyridoxine, Cobalamine and Folic acid. (1, 1, 2 marks)
6. List the long term effects of energy imbalance in adolescence. Explain how young adults can calculate their BMI and how to interpret the values obtained. (1, 1, 2 marks)
7. The CINDI dietary guide summarises 12 key steps for action towards maintaining a healthy lifestyle. Explain and justify the following key steps:
 - i) Eat bread, grains, pasta, rice or potatoes several times per day.
 - ii) If alcohol is consumed, limit intake to no more than 2 drinks (each containing 10g of alcohol) per day. (2, 2 marks)
8. Explain the difference between 'genetically modified food' and 'organically grown food'. For **EACH** type of food, outline **TWO** advantages and **TWO** disadvantages for human health. (2, 2, 2 marks)
9. A *bank transfer* is one of the evolving methods of financial transactions between buyers and sellers. However, *plastic money* is also widely used as a method of payment. Define the italicised terms. Give a brief description of debit cards and credit cards. (1, 1, 1, 1 mark)
10. Explain the use of the CE mark and what it claims. (1, 1 mark)

SECTION B (60 marks)
ANSWER ANY THREE QUESTIONS

Question 1

Fats are essential macronutrients in the human diet but need to be taken in moderation.

- a) Explain the **FOUR** main roles of lipids in the body. (2 marks)
- b) Outline the difference between unsaturated and saturated fatty acids, giving **TWO** food sources for **EACH** type of fat. (2, 1, 1 marks)
- c) Explain why hydrogenated fats have a negative impact on health. List **TWO** foods that contain hydrogenated fats. (1, 1 marks)
- d) LDL and HDL are types of cholesterol. For **EACH** of these types of cholesterol:
- i) give the full name;
 - ii) list **TWO** food sources; and
 - iii) outline its role in the body. (2, 2, 2 marks)
- e) A traditional dish that Maltese families like to prepare is Timpana. Highlight **TEN** modifications that can be made in the traditional Timpana recipe to include ingredients that have low cholesterol content. (5 marks)
- f) Outline **TWO** non-dietary factors that can help to reduce cholesterol levels in the body. (1 mark)

Question 2

Children are more susceptible to illnesses since their rate of physical development is faster than that of their immune system.

- a) List and describe the **FOUR** main key development stages of a young child. Write down **TWO** milestones for each development stage. (2, 4, 4 marks)
- b) Besides measles, name and briefly describe **TWO** other illnesses young children are more likely to develop during the winter season. (1, 2 marks)
- c) The state offers an extensive immunisation programme for infants, babies and children. Give **TWO** reasons why immunisation programmes are important for a country. List the illnesses which the following babies are immunised against:
- i) two-month old baby;
 - ii) fifteen-month old baby. (2, 2 marks)
- d) Highlight how a parent can take care and comfort a 5-year-old girl who is ill. (3 marks)

Question 3

A 23-year-old graduate has purchased a second hand car to use for his professional work and his daily usage. He also intends to buy an apartment but needs a bank loan. The company he is working with is offering a health insurance as part of his work package but he is eager to invest in a life assurance policy.

- a) Outline the difference between an *insurance policy* and an *assurance policy*. (2 marks)
- b) Explain **FOUR** features this graduate needs to consider when taking out a car insurance. (4 marks)
- c) When applying for a bank loan to purchase an apartment, the graduate was instructed to take out insurances. List the types of insurances needed if the apartment is to be purchased through a bank loan. Explain the function for **EACH** type of insurance. (1, 2, 2 marks)
- d) Outline the benefits of a *health insurance* and a *life assurance policy* for this young graduate. (3, 3 marks)
- e) Explain any **THREE** of the following keywords commonly found in insurance/assurance policies:
 - i) Premium
 - ii) Indemnity
 - iii) Claim
 - iv) Coverage
 (3 marks)

Question 4

Iron, potassium, calcium, sodium, phosphorus and iodine are amongst the minerals which are important for the human body.

- a) Describe the main function and list **TWO** common food sources for **EACH** mineral featured above. (6, 3 marks)
- b) Mention **TWO** population groups who require higher intakes of:
 - i) iron;
 - ii) calcium.
 Outline a reason for **EACH** (2, 2 marks)
- c) Outline the difference between sodium and salt present in food and give the recommended intake for adults of sodium and salt. (1 mark)
- d) Discuss **TWO** ways in which persons suffering from hypertension can reduce their sodium intake by addressing **EACH** of the following sources of sodium:
 - i) naturally occurring in foodstuffs;
 - ii) as sodium-containing substances;
 - iii) as added salt. (3 marks)
- e) Suggest **ONE** non-diet-related lifestyle behaviour often made by older teenagers which could increase their risk for developing hypertension and outline **TWO** changes they could make in this behaviour to decrease their risk for hypertension. (1, 2 marks)