

# MATRICULATION AND SECONDARY EDUCATION CERTIFICATE EXAMINATIONS BOARD

# ADVANCED MATRICULATION LEVEL 2023 FIRST SESSION

SUBJECT: Home Economics and Human Ecology

PAPER NUMBER: I

DATE: 23<sup>rd</sup> May 2023

TIME: 9:00 a.m. to 12:05 p.m.

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

1. a. Define the term family unit.

(1)

Over the years, the family structure changed significantly. Smaller families, same-sex families and one-parent families are now equally accepted as a family unit.

- b. Justify your answer with **TWO** reasons, why new family structures are on the increase. (2)
- c. Describe **ONE** positive and **ONE** negative implication the changes in family structure is having on the family. (1,1)
- d. Nowadays, young people are residing away from home more often than the past. Mention **TWO** implications of this change on the family members. (2)

A lot of people think others adopt because they can't have children of their own. While this does make up a large percentage, we're seeing a growing trend of people who already have biological children, choosing to adopt a child from outside their family.

(Times of Malta, May 2020)

- e. Identify **TWO** other reasons, apart from infertility issues, why people might choose to adopt a child. (2)
- f. State **TWO** ways how the government supports individuals or couples who are in the process of adopting a child. (2)
- g. Highlight **TWO** ways how an adopted child benefits from the introduction to a new family. (2)
- h. Identify **TWO** challenges that an adoptive family might face before adoption and **TWO** challenges the family might face after adoption. (2,2)
- i. Identify **SIX** factors which indicate a good quality of life for the adoptive child. (3)

(Total: 20 marks)

Please turn the page.

- 2. Adults are responsible not only for themselves but also for other members within the family.
  - a. State **TWO** responsibilities that adults within a family have towards:
    - i. their children; (2)
    - ii. partners; (2)
    - iii. elderly relatives. (2)

Free childcare centres are a family-friendly measure to help families when parents work.

- b. Identify and explain the importance of another **TWO** family-friendly measures found locally.(4)
- c. Explain how childcare centres cater for the needs of the:
  - i. parents; (1)
  - ii. children. (1)
- d. Identify **THREE** activities that a childcare worker can use to help the child develop. For **each** activity explain how it helps the development of the child. (3)
- e. List **SIX** basic needs of children. (3)
- f. Explain **TWO** ways how the provision of basic needs helps the child develop. (2)

(Total: 20 marks)

- 3. Nowadays consumers are more aware of the impact of their shopping behaviour on the environment, as their concerns for climate change grow.
  - a. Identify **FOUR** influences, other than environment-related influences, that affect the consumers' buying behaviour. For **each** influence state **ONE** example. (4)
  - b. The following symbols are usually found on a number of products.
    - i. Name **each** symbol. (1½)
    - ii. Outline what each symbol means. (3)
    - iii. State **ONE** product where each symbol can be found. (1½)



c. Identify and briefly explain **FOUR** features that green consumers should look for when buying a new washing machine. (4)

The newly introduced Beverage Container Refund Scheme which started on 14<sup>th</sup> November 2022, incentivises the return of single-use beverage containers in Malta and Gozo.

- d. Explain how this scheme works. (2)
- e. List **FOUR** beverage containers that can be recycled using this scheme. (2)
- f. Describe in **TWO** steps what happens to the beverage containers once they are collected. (2)

A consumer is a person or a group who intends to order, or use purchased goods, products, or services primarily for personal, social, family, household and similar needs. a. If the customer is not satisfied, one has the right to redress. Apart from redressing, state **THREE** consumers rights and **THREE** consumer responsibilities. (3,3)b. What is the difference between a legal guarantee and a commercial guarantee? (2)c. Give **ONE** benefit of having a guarantee for the:

retailer; (1)

ii. consumer. (1)

Michael has just bought a brand-new mobile phone from a local shop. One week after purchase, the power and volume button stopped functioning.

- Suggest the most suitable method for Michael to redress, justifying your answer by including **TWO** reasons why this choice of redress is the best method. (1,2)
- Identify another **FOUR** methods to redress apart from the one mentioned in part (d). (4)
- f. Describe **THREE** important factors one must keep in mind when redressing. (3)

(Total: 20 marks)

5. People adapt themselves. Less than two months down the line (Covid-19 pandemic) we could see more shoppers moving towards online shopping and payments. The world experienced a significant increase in online shopping.

(Times of Malta, December 2022)

- a. State **ONE** advantage and **ONE** disadvantage of:
  - online shopping; (2)
  - ii. teleshopping. (2)
- b. Identify and outline **FOUR** different methods of payment. (2,4)
- List **ONE** advantage and **ONE** disadvantage of the **FOUR** methods of payment identified in part (b). (8)
- d. Items are generally scanned before payment can take place. Explain the benefit for a retailer having:
  - an EPOS system; (1)
  - ii. barcodes. (1)

(Total: 20 marks)

Please turn the page.

- 6. Jonathan is a newly graduate nurse and has just earned his first income. He plans to invest in a property, whilst still taking vacations and visiting places of entertainment.
  - a. Give **TWO** reasons why a budget is important for people who have just started working.(2)
  - b. Should Jonathan not budget well, he might end up in debt. Explain **THREE** implications on Jonathan's life should this happen. (3)
  - c. State **TWO** places from where Jonathan can receive financial advice. (2)

A way how to finance unplanned events is to opt for a credit option.

- d. Identify **THREE** credit options and state **THREE** main uses. (3)
- e. State **FOUR** limitations of the credit options identified in part (d). (4)
- f. Highlight the difference between life insurance and life assurance policy. (2)
- g. Suggest **THREE** benefits of having a life insurance. (3)
- h. List **TWO** other types of insurances available locally. (1)



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#### ADVANCED MATRICULATION LEVEL 2023 FIRST SESSION

SUBJECT: Home Economics and Human Ecology

PAPER NUMBER:

DATE: 23<sup>rd</sup> May 2023

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

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

1. In Malta, 19.8% of women and 5.9% of men aged 50 years or more were estimated to have osteoporosis – International Osteoporosis Foundation, 2022.

https://www.osteoporosis.foundation/sites/iofbonehealth/files/scope-2021/Malta%20report.pdf

- a. Describe the aetiology of osteoporosis and identify **FOUR** population groups this condition is most prevalent in. (2, 2)
- b. Outline **TWO** dietary and **TWO** non-dietary factors that could delay the development of osteoporosis. (2, 2)
- Doctors may refer their patients to a bone scan. Explain why this scan is carried out and justify why is it especially important for women who are in their middle or late adulthood to get tested.
- d. Justify the following statements about calcium using scientific principles.
  - . Good levels of vitamin D in the body ensures adequate calcium absorption. (1)
  - ii. The EFSA recommendations for the daily intake of calcium varies according to age. (1)
  - iii. Excessive intake of calcium can lead to heart failure.
  - iv. Muscular cramps can be a sign of low calcium in the body. (1)
  - v. Certain foods, such as spinach and beans, may hinder the absorption of calcium.(1)
- e. Identify **TWO** conditions, other than osteoporosis, related to the low intake of calcium. For **each** condition, explain how they differ from osteoporosis and determine the specific group of people who are more susceptible to **each** condition. (1, 2, 2)

(Total: 20 marks)

(1)

a. Outline what pulses are and list **FOUR** types of pulses commonly used in Malta. (1, 2) b. Give a nutritional analysis of pulses, highlighting TWO nutrients which are present in high amounts. (2) c. Increasing the use of pulses or soya bean products into meals instead of meat is a great way of planning economical and healthy meals. Justify this statement. (2) d. List **FOUR** traditional Maltese recipes which use pulses as their main ingredients. (2) Suggest **FOUR** ways how we can increase the consumption of pulses in the diet. (2) Identify **THREE** points to consider when purchasing dried pulses and describe **TWO** important steps involved in preparing dried pulses for cooking. g. Certain type of pulses may be toxic for the human body if consumed in their raw form. Explain the scientific principle behind the above statement. (1) ii. Name **TWO** pulses which are being referred to in the above statement. (1)iii. Describe how one would need to prepare and cook this type of pulses to make them safe for consumption. (2) (Total: 20 marks) 3. Dairy products, such as yoghurt, are considered as good sources of proteins. a. Outline **TWO** main roles of proteins in the human diet. (1)b. Explain why proteins are considered as macronutrients. (1) Identify **TWO** foods containing adequate amount of all the essential amino acids. (1)d. Explain, giving **ONE** example, how complimentary protein foods work. (2) e. Maltese consumers have both local and imported yoghurt to choose from. Give TWO reasons why opting for locally produced yoghurt is better. (2) Explain the scientific principles behind the following statements. Yoghurt is a high probiotic food with health benefits. (2) ii. Yoghurt should be refrigerated at a temperature of 2 °C to 4.4 °C. (2) g. Outline FOUR ways how to include yoghurt in sweet and/or savoury dishes. (2) h. The use of enzymes is useful in specific foods such as yoghurts. Define the term enzymes and explain in SIX steps the main scientific principles involved when making yoghurt. (1,6)

Pulses are one of the main food commodities in the Mediterranean diets.

4. The average family of four is spending €100 a month more on food bills than in 2020 and the elderly are facing an even higher increase. - The Minimum Essential Budget for a Decent Living, Caritas, 2022.

https://www.caritasmalta.org/mini-mebdl-2022-minimum-essential-budget-for-a-decent-living/

- a. Outline **FOUR** considerations, giving a practical example for each, that an elderly couple must keep in mind to prepare economical healthy meals. (4,2)
- b. Justify the following statements related to the nutritional needs of an elderly.
  - i. Elderly people must be able to identify 'good quality foods' when doing their grocery shopping.
  - ii. Elderly people have lower calorie need when compared to young adults. (1)
  - iii. After menopause, women's requirement for iron is reduced to the same level as that for men. (1)
  - iv. Elderly people might be more tempted to put excessive amounts of sugar and salt in their meals. (1)
- c. List **FOUR** suitable energy-saving appliances an elderly couple could use when preparing meals. Highlight how **each** of the appliances mentioned can help in the preparation of the meal to retain the micronutrients. (2, 4)
- d. Apart from nutrition and budget, outline **FOUR** other factors that must be considered when elderly people are planning their meals. (4)

(Total: 20 marks)

- 5. Game and poultry have been served on family tables since olden times.
  - a. Define the terms 'game' and 'poultry', highlighting the main nutritive difference between the two. (2,1)
  - b. Explain the difference between organic, free range and battery chickens and give **ONE** reason why consumers might prefer free range chicken. (3, 1)
  - c. Evaluate the following statements, giving their underlying scientific principles.
    - i. Thorough cooking of chicken meat is essential. (1)
    - ii. Raw chicken meat must be chilled to at least 4 °C. (1)
    - iii. The consumption of poultry meat of birds implanted with steroid hormone pellets can be detrimental to human health. (1)
  - d. Analyse the nutritive value of an egg, giving **FOUR** important details. (4)
  - e. Name **FOUR** healthy traditional Maltese dishes where poultry or eggs are used as a main ingredient. (2)
  - f. Outline the **FOUR** different roles eggs have in various dishes. (4)

- 6. Many individuals may suffer from hypertension without being aware of it until damage is done to vital body organs. Pregnancy may trigger off hypertension in susceptible individuals.
  - a. Explain in detail what is hypertension. (2)
  - b. Identify **FOUR** symptoms that may be experienced by individuals with hypertension. (2)
  - c. Outline **FOUR** possible implications that can result in the body if hypertension is **not** identified and treated. (4)
  - d. A lacto-vegetarian, pregnant woman in her third trimester has been diagnosed with gestational hypertension.
    - i. Assess **TWO** dietary changes and **TWO** non-dietary changes that she should make to safeguard her health and that of her unborn child. (1, 1)
    - ii. This mother is very conscious of obtaining an adequate dietary intake. Give a nutritional justification for at least **FIVE** nutrients which must be increased during pregnancy. For **each** nutrient, identify **TWO** different food items which the woman can consume. (5, 5)