



**Easter Fifth Year Examination, 2020**

**HOME ECONOMICS – SCIENTIFIC AND SOCIAL**

***HIGHER LEVEL***

*Instructions to Candidates*

**Section A** There are **twelve** questions in this section. Candidates are required to answer any **ten** questions. Each question carries **6** marks.

**Write your answers in the spaces provided on the examination paper.**

**Section B** There are **four** questions in this section. Candidates are required to answer **Question 1 and any two other question.**

**Question 1** is worth **80** marks.

**Questions 2, 3 and 4** are worth **50** marks each.

**Write your answers in the separate answer book provided.**

**NAME:** .....

**STUDENT NUMBER:** .....

<u>Question</u>	<u>Mark</u>
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
<u>Total</u>	/ 240
<u>Percentage</u>	
<u>Grade</u>	

**Section A**

1. Give **three** specific dietary guidelines for a person with coronary heart disease. (6)

- (i) \_\_\_\_\_  
\_\_\_\_\_
- (ii) \_\_\_\_\_  
\_\_\_\_\_
- (iii) \_\_\_\_\_  
\_\_\_\_\_

2. Complete the following table in relation to the digestion of lipids. (6)

<b>Gland</b>	<b>Secretion</b>	<b>Enzymes</b>	<b>Substrate</b>	<b>Product</b>
Liver			Lipids	
	Intestinal juice		Lipids	

3. State the function of **each** of the following in relation to protein. (6)

- (i) *Deamination* \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- (ii) *Maillard reaction* \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. Name one main mineral found in each of the foods listed below. (6)

<b>Food</b>	<b>Mineral</b>
<b>Offal</b>	
<b>Soya protein</b>	
<b>Shellfish</b>	

5. Outline the role of energy in the body. (6)

(i) \_\_\_\_\_  
\_\_\_\_\_

(ii) \_\_\_\_\_  
\_\_\_\_\_

(iii) \_\_\_\_\_  
\_\_\_\_\_

6. (a) Name **two** non- haem sources of iron in the diet. (2)

(i) \_\_\_\_\_ (ii) \_\_\_\_\_

(b) State **two** factors that assist the absorption of iron. (4)

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

7. State the function of **each** of the following in relation to the manufacture of margarine (6)

(i) Hydrogenation \_\_\_\_\_  
\_\_\_\_\_

(ii) Emulsification \_\_\_\_\_  
\_\_\_\_\_

8. In relation to protein, differentiate between: (6)

(i) Fibrous structure \_\_\_\_\_  
\_\_\_\_\_

(ii) Globular structure \_\_\_\_\_  
\_\_\_\_\_

9. Identify and describe **two** forms of diabetes. (6)

(i) \_\_\_\_\_

\_\_\_\_\_

(ii) \_\_\_\_\_

\_\_\_\_\_

List two modifications necessary for a person with this condition

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

10. Explain the following term in relation to dental disease (6)

Plaque \_\_\_\_\_

\_\_\_\_\_

Tartar \_\_\_\_\_

\_\_\_\_\_

11. Complete the following in relation to alternative (novel) protein foods. (6)

	Source	Product
Plant		
Micro-organisms		

12. How does diverticulitis affect the body?

\_\_\_\_\_

\_\_\_\_\_

Give three ways of including fibre in the diet

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Section B 6<sup>th</sup>Xmas

1. **Your body mass index (BMI) is the number that relates your body weight to your height. It is the most widely used measurement for obesity. The score is valid for both men and women.** *(Healthy Ireland Survey, 2015)*

The chart below provides information on the Body Mass Index (BMI) of both males and females in different age categories.

	Men							Women						
	All	15-24	25-34	35-44	45-54	55-64	65+	All	15-24	25-34	35-44	45-54	55-64	65+
	%	%	%	%	%	%	%	%	%	%	%	%	%	%
<b>Obese</b>	25	4	16	26	30	39	35	22	10	16	21	23	31	34
<b>Overweight</b>	43	27	49	46	46	44	46	31	17	30	32	39	37	34
<b>Normal weight</b>	31	64	34	28	23	17	18	44	64	51	47	37	31	30
<b>Underweight</b>	1	4	1	<0.5	1	<0.5	<0.5	3	9	3	1	1	1	2

- (a) Using the information provided in the chart, comment **and** elaborate on the BMI of **both** genders, giving reference to the age categories. In your answer give reasons for the variation in BMI. (24)
- (b) Give a detailed account of proteins and refer to: (16)
- chemical structure of a basic amino acid
  - how a peptide bond is formed.
- (c) Discuss the properties of protein **and** in your answer make reference to their culinary application. (15)
- (d) Vegetarians may lack protein in their diet. Name **and** give an account of **one** type of vegetarian diet. In your answer refer to (i) reasons for choice **and** (ii) the dietary guidelines to follow. (11)
- (e) ‘We are a nation of enthusiastic snackers and, although the trend towards healthier treats continues, three in five Irish people still eat unhealthy snacks every day.’ *(Irish Examiner, 2017)* (18)

Discuss the healthy snacking options available to people in Ireland.

2. **‘Osteoporosis is called “the silent disease” as it often goes undetected until it is too late.’**  
*(National Dairy Council)*
- (a) Write an informative account of osteoporosis.  
Refer to:
- definition
  - factors which increase the risk of osteoporosis
  - symptoms of osteoporosis. **(30)**
- (b) Discuss how to reduce the risk of developing osteoporosis. **(12)**
- (c) Plan a menu for a main meal for a person suffering from osteoporosis. **(8)**
3. Consumption of milk and dairy products is associated with numerous health benefits.  
*(The Dairy Council)*
- (a) Discuss the nutritional and dietetic significance of milk in the diet. **(20)**
- (b) Write an informative note on each of the following terms found in the dairy industry:
- Homogenisation
  - Pasteurisation
  - Sterilisation **(15)**
- (c) Milk is often served with food rich in vitamin C. Give an account of vitamin C and refer to :
- properties
  - functions
  - sources **(15)**

**4.** Sociology is the study of society, patterns of social relationships, social interaction and culture of everyday life.

**(a)** Explain the following sociological terms:

- socialisation
- socio-economic group
- social mobility
- social change
- kinship.

(14)

**(b)** Describe the characteristics of contemporary family structures.

(12)

**(c)** Discuss the social, economic and technological changes that affect families today. (24)