

GAUTENG DEPARTMENT OF EDUCATION  
SENIOR CERTIFICATE EXAMINATION

HOME ECONOMICS SG

TIME: 3 hours

MARKS: 200

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**INSTRUCTIONS:**

- ALL the questions are COMPULSORY.
- Start **each question** on a **new page**.
- Number your answers exactly as the questions are numbered.
- Write neatly and legibly.
- Answer **Question 1A** (multiple-choice questions 1.1 – 1.7) on the **answer sheet** on the **inside cover** of your **answer book**.
- Answer **Question 1B (1.8 – 1.14)** of **Section A** as well as **Sections B, C and D** in your **answer book**.
- Use the suggested time guide below.

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**SUGGESTED TIME GUIDE**

QUESTION NUMBER		MARKS	TIME
<b>Section A</b>	Question 1	50	45 minutes
<b>Section B</b>	Question 2	30	27 minutes
	Question 3	30	27 minutes
<b>Section C</b>	Question 4	30	27 minutes
<b>Section D</b>	Question 5	30	27 minutes
	Question 6	30	27 minutes
	<b>TOTAL</b>	<b>200</b>	<b>180 minutes</b>

## SECTION A

QUESTION 1A  
MULTIPLE-CHOICE QUESTIONS

Indicate the correct answer by making a cross (X) over the corresponding letter on the **answer sheet** on the **inside cover** of your **answer book**.

NB: Where more than one cross appears in any answer, **no marks** will be awarded for that question.

**EXAMPLE:** Microwaves are \_\_\_\_\_ waves.

- A. light
- B. radio
- C. infra-red
- D. electromagnetic

**ANSWER:**

A	B	C	<input checked="" type="checkbox"/>
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1.1 If **boiling** is the cooking method being used, the water must be **boiling** before food is added because \_\_\_\_\_.

- 1. the cooking time will be shortened
- 2. micro-organisms are destroyed
- 3. nutrients are better preserved
- 4. heat is transmitted throughout the food

- A. 1 and 2
- B. 1 and 3
- C. 2 and 3
- D. 2 and 4

1.2 Which TWO of the following dairy products are suitable for a **slimmer's diet**?

- 1. Sweetened strawberry yoghurt
- 2. Cottage cheese
- 3. Fresh homogenised milk
- 4. Skimmed milk

- A. 1 and 4
- B. 1 and 3
- C. 2 and 3
- D. 2 and 4

1.3 A frozen lasagne was prepared with a white sauce as the top layer. It was **watery** and had **fine cracks** on the surface after it was defrosted and then reheated. This is an example of \_\_\_\_\_.

- A. denaturing
- B. gelatinisation
- C. syneresis
- D. dextrinisation

- 1.4 **Marbling** in meat means\_\_\_\_\_.
- A. to insert fat strips into meat
  - B. to distribute fat between the muscle fibres
  - C. to distribute sarcoplasm between the muscle fibres
  - A. to soak meat in a mixture of vinegar, oil and herbs
- 1.5 Which of the following activities are carried out during the **implementation** (carrying through phase) of the management process?
- A. Plans are put in place and controlled.
  - B. Resources are allocated and goals achieved.
  - C. Standards are set and goals achieved.
  - D. Resources are determined and activities are organised.
- 1.6 Which of the following statements should be borne in mind when **planning the lighting** in a home?
- A. Bright light is needed over the work surfaces in the kitchen and the needlework room.
  - B. Indirect lighting is needed at stairs to prevent accidents.
  - C. Use a dimmer light in a room with dark walls because dark colours reflect light.
  - D. Fluorescent lighting is generally regarded as sociable in the lounge and dining room.
- 1.7 One way to ensure **solidarity** in a family is \_\_\_\_\_.
- A. to sit comfortably around the dinner table and talk and then to have family prayers
  - B. for each one to go on his or her own way but to be available in a crisis
  - C. never to work together on the same task but stand together in difficult times
  - D. to avoid physical contact, e.g. hugging, at all times

7x2 = **(14)**

## QUESTION 1B

Answer this section in your answer book.

- 1.8 Choose the **statement** in **Column B** that best suits the **cooking method** in **Column A**. Write only the question numbers (1.8.1 – 1.8.3) **below one another** in your **answer book** and then the relevant letter (A – E) of your choice next to the number, e.g. 1.8.4 – F.

Mrs Paulse prepares a meal in the following way:

COLUMN A COOKING METHOD		COLUMN B STATEMENT		
1.8.1	Grill	A.	Rice is cooked in boiling water.	
1.8.2	Deep fry	B.	Frozen vegetables are cooked in cooking bags.	
1.8.3	Boil	C.	Food is cooked in hot oil that completely covers it.	
		D.	Snoek is cooked over glowing coals.	
		E.	Dried fruit is cooked in a small amount of liquid.	
				(3)

- 1.9 Choose from **Column B** the **change in meat** associated with the **heating process** in **Column A**. Write only the question numbers (1.9.1 – 1.9.6) **below one another** in your **answer book** and then the relevant letter (A – H) of your choice next to the number, e.g. 1.9.7 – I.

COLUMN A HEATING PROCESS		COLUMN B CHANGES IN MEAT		
1.9.1	Heating of fat	A.	Maintain tenderness	
1.9.2	Moist heat applied to tough meat	B.	Coagulation of protein on the surface	
1.9.3	Application of continuous high heat	C.	Sarcoplasm becomes hard	
1.9.4	Dry heat causes colour changes in meat	D.	Collagen changes to gelatine	
1.9.5	Correct cooking methods	E.	Melts	
1.9.6	Searing at the beginning of the cooking process	F.	Maillard reaction	
		G.	Great weight loss / shrinkage	
		H.	Ripening	
				(6)

- 1.10 Choose the **changes that occur in red cabbage** during the cooking process in **Column B** that best suit the **application** in **Column A**. Write only the question numbers (1.10.1 – 1.10.4) **below one another** in your answer book and then the letters (A – F) of your choice next to the number, e.g. 1.10.5 – G.

COLUMN A APPLICATION		COLUMN B CHANGES IN RED CABBAGE	
1.10.1	Addition of bicarbonate of soda	A. B. C. D. E. F.	Destroys ascorbic acid Makes cellulose firmer Brightens red colour Causes colour to change to a dull red Softens the cellulose Vitamin C is not destroyed. (3)
1.10.2	Addition of an acid	A. B. C. D.	Destroys vitamin C Brightens red colour Causes colour to change to a dull red Makes the texture of cellulose firmer (2)
1.10.3	Use a lid	A. B. C. D. E. F.	Shortens cooking time Increases cooking time Loses volatile flavour substances Increases the loss of vitamins Less volatile flavour substances are lost Reduces the loss of vitamins as a result of oxidation (3)
1.10.4	Cooked for too long	A. B. C.	Sulphur compounds decompose and causes an unpleasant taste and smell Delays the decomposition of sulphur compounds Improves the taste (1)

(9)

- 1.11 Select from the list below, **FOUR changes that take place in plums during the ripening process**. Write down the question number (1.11) and the **FOUR** relevant letters (A – H) of your choice **below one another** in your answer book.

CHANGES IN PLUMS DURING THE RIPENING PROCESS	
A.	The sugar content in the fruit decreases.
B.	Organic acids reduce and the fruit becomes sweeter.
C.	The pigment, anthocyanin, is synthesised.
D.	Volatile substances as well as flavour are developed.
E.	Pectin changes to protopectin and the fruit becomes firmer.
F.	Sun-ripened plums have a lower vitamin A and C content than plums ripened in the shade.
G.	Protopectin changes to pectin and the plum becomes sweeter.
H.	The colour changes to red as a result of the breakdown of chlorophyll.

(4)

- 1.12 Select from the list below, **FOUR factors that contribute to physical demands** of a worker. Write down the question number (1.12) and the **FOUR** letters (A – H) of your choice **below one another** in your **answer book**.

<b>FACTORS THAT CONTRIBUTE TO PHYSICAL DEMANDS</b>	
A.	Does not know how to put a zip in.
B.	Cut the grass around the house using garden shears.
C.	Does not enjoy cleaning toilet bowls.
D.	Hang all the curtains in the house in one day.
E.	Does not know how to determine if a cake is properly baked.
F.	Wash the same clothes again and again.
G.	Stand and make doughnuts all day.
H.	Work surfaces that are not at elbow level when sitting down to work.

(4)

- 1.13 Select from the list below **FOUR** aspects that form part of the **planning stage of the management process**. Write down the question number (1.13) and the **FOUR** letters (A – H) of your choice **below one another** in your **answer book**.

<b>PLANNING STAGE OF THE MANAGEMENT PROCESS</b>	
A.	Determine needs.
B.	Clarify goals.
C.	Set standards.
D.	Implement plans.
E.	Consider resources.
F.	Check consequences.
G.	Organise the sequence of action.
H.	Evaluate end results.

(4)

1.14 Study the statement below carefully.

The family has a responsibility towards the community and interacts with the different systems in the community.

Redraw the table in your answer book.

ECONOMIC SYSTEM	COMMUNITY SYSTEM	POLITICAL SYSTEM
(2)	(2)	(2)

Analyse the statements below and write the letter (A – F) in the correct column in the table.

INTERACTION OF THE FAMILY AND ITS ENVIRONMENT	
A.	Girls should also do a year of compulsory military training.
B.	More parents should make themselves eligible for the school governing body.
C.	Most South Africans adhered to the new firearms law and handed in their unlicensed weapons.
D.	Our family started a campaign against littering in our neighbourhood..
E.	The Daniels family is worried about how the new petrol price will affect them.
F.	Women in South Africa spend more than R200 million a year on consumer products.

(6)

**TOTAL FOR SECTION A: [50]**

## SECTION B

## QUESTION 2

Start Question 2 on a new page in your answer book.

- 2.1 2.1.1 Name TWO **causes of food spoilage** EXCLUDING bacteria. (2)  
2.1.2 Name TWO **methods of protecting** food against spoilage. (2)

- 2.2 Explain the **changes** that occur during the **thickening process** of eggs. (3)

Fish provides variety in a menu as it can be served in many different ways.

- 2.3 Suggest FIVE ways in which **fish** can be **served**. (5)

- 2.4 Explain the **effect of heat** on **fish**. (4)

- 2.5 Explain the effect of **raw** pineapple on gelatine mixtures. (2)

- 2.6 The table below represents the **recommended diet plan (Columns A and B)** for a **teenager** for **one day**. **Column C** indicates the **total number of portions** eaten by the teenager during the day **BEFORE DINNER**.

COLUMN A	COLUMN B	COLUMN C
Basic food groups	Recommended daily portions	Total number of portions already eaten
Milk and milk products	2	2
Meat and meat alternatives	2	1
Fruit and vegetables		
• Rich in Vitamin A	1	
• Rich in Vitamin C	1	
• Other	2	2
Grain and grain products	4	3
Fats and oils	4	3

<b>MENU</b>
DINNER
Chicken Pie
Rice
Carrots Beetroot
Steamed Pudding

NOTE: Each dish on the menu represents **one portion** eaten at **dinner** that evening.



Redraw the table below in your answer book and complete it by answering the following questions in table format.

DISH	2.6.1 BASIC FOOD GROUP	2.6.2 TOTAL NUMBER OF PORTIONS INCLUDED
Chicken pie		
Rice		
Steamed pudding		
Carrots		
Beetroot		

Evaluate the given dinner menu with regard to the following:

2.6.1 **Basic food groups** included in the menu

(6)

2.6.2 **Total number of portions** of each food group included

(6)

[30]

### QUESTION 3

Start Question 3 on a new page in your answer book.

3.1 Study the recipe below and answer the questions that follow.

SWISS ROLL	
INGREDIENTS	METHOD
3 eggs, separated 1 ml vanilla essence 12,5 ml lemon juice	<ul style="list-style-type: none"> <li>Beat egg yolks, vanilla essence and lemon juice together well.</li> </ul>
125 ml flour 2 ml baking powder 1 ml salt	<ul style="list-style-type: none"> <li>Sift dry ingredients (flour, baking powder and salt) three times.</li> <li>Lightly fold the dry ingredients into the yolk mixture, use a metal spoon or suitable piece of equipment.</li> </ul>
25 ml milk	<ul style="list-style-type: none"> <li>Fold the milk into the mixture.</li> </ul>
	<ul style="list-style-type: none"> <li>Beat egg whites until stiff in a large mixing bowl.</li> <li>Lightly fold the beaten egg whites into the mixture.</li> <li>Pour mixture into a prepared Swiss Roll tin.</li> <li>Bake for 10 – 12 minutes till cooked.</li> </ul>

3.1.1 Air is a **physical method** that will allow the Swiss Roll to rise. Identify THREE ways in which **air was incorporated** into the mixture.

(3)

3.1.2 Identify **another method** that is also used to allow the **mixture to rise** and give an **example** from the recipe.

(2)

- 3.1.3 The egg white is beaten to the stiff peak stage. List **FOUR characteristics** of this egg-white foam stage. (4)
- 3.1.4 Explain the following **phenomena** that take place when **full-cream milk** is **boiled**.
- (a) A **skin** forms on **top** of the milk. (4)
- (b) A **deposit/precipitation** is visible on the **bottom** of the pot. (2)
- 3.2 3.2.1 List **THREE rules** that could be followed to **decrease** the **setting time** of gelatine. (3)
- 3.2.2 Explain how to prevent lumps from forming during the preparation of **starch** dishes. (3)
- 3.3 The cooking of a **starch mixture** that is thickened with **egg** can be problematic. Explain what the problem could be. (2)
- 3.4 A mixed salad was made during the practical cookery lesson. The following ingredients were used:
- spinach leaves, avocado blocks, banana slices, sliced green apples, spring onions and chopped tomato
- 3.4.1 Identify **THREE** of the above ingredients that will change to an **unattractive brown** colour after being cut. (3)
- 3.4.2 Explain what may possibly cause this **browning process**. (2)
- 3.4.3 Explain how the ingredients mentioned in Question 3.4.1 are treated to **prevent** browning taking place. (2)

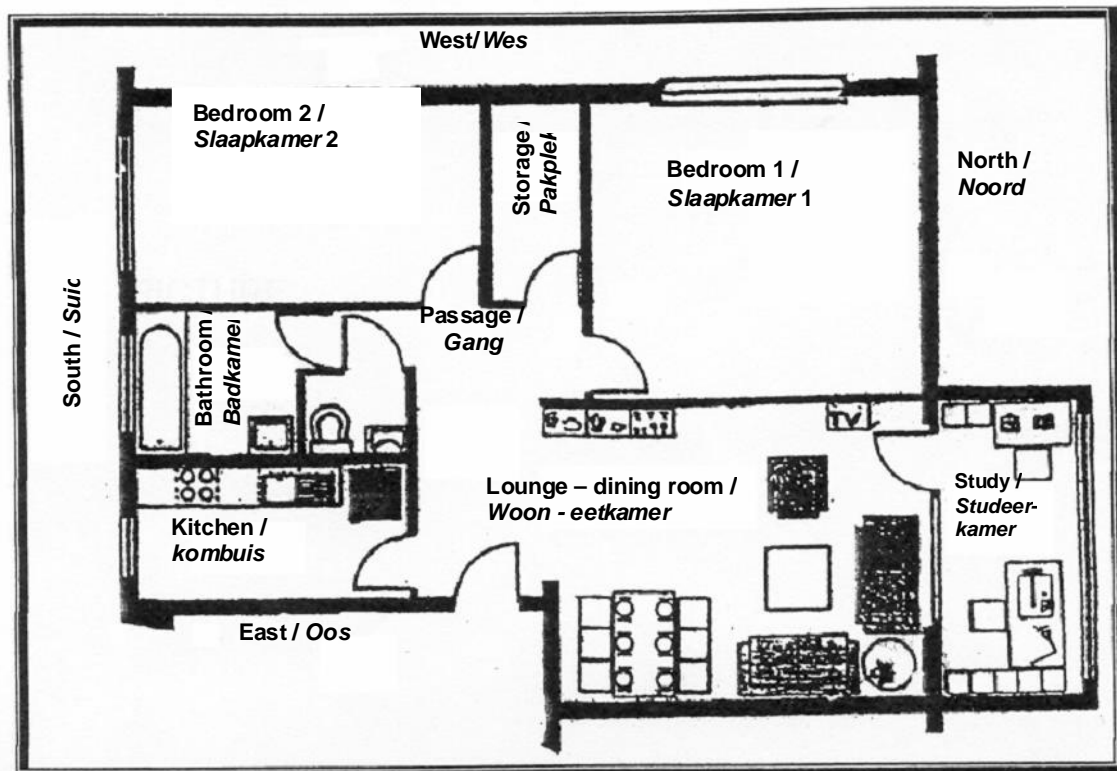
**[30]****TOTAL FOR SECTION B: [60]**

## SECTION C

## QUESTION 4

Start Question 4 on a new page in your answer book.

- 4.1 Below are examples of **mistakes** that could be made when using the microwave. Determine the outcome of each of the following:
- 4.1.1 The thin ends of meat face outwards and the thick ends towards the inside (1)
- 4.1.2 Different sizes of food in the same container (1)
- 4.1.3 Too many layers of food on top of one another (1)
- 4.1.4 Container too full of sauce (1)
- 4.2 Briefly explain how a **set gelatine mould** can be successfully turned out. (5)
- 4.3 Explain the **heat transference process** that takes place during the **baking of bread** in the oven, with reference to **radiation, convection** and **conduction**. (5)
- 4.4 Explain how a homemaker can draw up a plan for cleaning her house according to the **principles of good management**. (7)
- 4.5 Study the floor plan of a flat given below, then answer the questions that follow.



- 4.5.1 Identify the **kitchen shape** and give TWO **disadvantages** of this layout. (3)
- 4.5.2 Identify the THREE **areas** around which the kitchen **activities** centre. (3)
- 4.5.3 Discuss the **arrangement** of these centres to ensure **effective work performance**. (3)

[30]

TOTAL FOR SECTION C: [30]

## SECTION D

## QUESTION 5

Start Question 5 on a new page in your answer book.

- 5.1 5.1.1 Discuss the **requirements** for suitable **wall and floor finishes** in a kitchen. (5)
- 5.1.2 Bedroom 2 in Question 4.5 faces SOUTH. Give an **analogous colour scheme** suitable for this room. (3)
- 5.1.3 Suggest SIX **safety rules** that could prevent **accidents** in the **bathroom**. (6)
- 5.1.4 Bedroom 1 in Question 4.5 faces WEST. Give reasons why the **temperature** in the room should be **regulated** AND give THREE methods to achieve this. Refer **ONLY** to the **WINDOWS**. (4)
- 5.2 Describe the **socialisation** process during **adolescence**. (3)

5.3

goals, resources and values
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Analyse the case study below. Which of the above-mentioned terms from the management process are **indirectly** referred to in the case study? Name them AND identify ONE reference.

The most exciting subject in the school is Home Economics. It teaches us how to decide what is important and what is not. Most of the ovens do not work and there is no hot water. We have to take turns to bake and we have to work through break, because the kitchen must be clean for the next class. The educator wants us all to have enough practical experience.
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(3)

- 5.4 Name SIX guidelines that will be applicable for the **division of work** in a family. (6)

[30]

**QUESTION 6**

Start Question 6 on a new page in your answer book.

6.1 Read the case study below and answer the questions that follow.

Dawn and Adam earn R24 000 and R18 000 respectively per year. Both are given yearly bonuses. Adam's company subsidises the bond on their house. Dawn has a subsidised car because she often has to travel. They cannot afford a gardener and look after the vegetable and herb garden themselves. Dawn likes to read and often visits the library.

Redraw the table below and analyse this couple's **total monthly income** in terms of the headings in the table.

MONEY INCOME	NON-MONEY INCOME	FRINGE BENEFITS

(6)

6.2

Dawn and Adam have received three reminders this year that the payments on the furniture are in arrears. They ignored them because they had no money.

To **avoid this situation**, which may influence their credit rating in the future, give them **FOUR guidelines** on how to **set up a budget**.

(4)

6.3 Dawn has no insurance. Explain what general **rules** she should bear in mind when she wants to **take out insurance**.

(3)

6.4

Dawn does not have someone to help her in the house and has to work hard to keep the house neat. Her vacuum cleaner is broken and she has to sweep the carpets with a broom. She doesn't like the feeling of sand between her fingers and therefore wears gloves when working in the garden. She has trouble making straight rows in the vegetable garden.

Using the table below, identify **FOUR examples** from the case study with reference to the following **EMOTIONAL demands**.

DEMANDS	EXAMPLES
Work method	
Lack of skills	
Lack of good equipment	
Strenuous work	

(4)

6.5 Define:

6.5.1 Resources

(1)

6.5.2 Standards

(1)

- 6.6 Classify each of the following statements according to the **level of decision making**:
- 6.6.1 Dawn and Adam decide to go to Durban on holiday because their families always went there on holiday.
- 6.6.2 Dawn wants to lose weight. She first evaluated all the slimming options before making a decision on which option to follow.
- 6.6.3 Dawn decided to sell the vegetables and herbs to her colleagues. She did a quick survey to see if it would be worth her while. (3)
- 6.7 Dawn and Adam got advice on how to **deal with conflict constructively**. Suggest what **advice** they may have been given. (4)
- 6.8 Both Dawn and Adam work and share the household tasks. Explain why **shared responsibilities** are of benefit to the family. (4)
- [30]
- TOTAL FOR SECTION D: [60]**
- TOTAL: 200**