

## GAUTENG DEPARTMENT OF EDUCATION

## SENIOR CERTIFICATE EXAMINATION

## HOME ECONOMICS SG

Possible Answers / Moontlike Antwoorde  
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## SECTION A

## QUESTION 1A

1.1	<del>A</del>	B	C	D
1.2	A	B	<del>C</del>	D
1.3	A	B	<del>C</del>	D
1.4	A	<del>B</del>	C	D
1.5	A	<del>B</del>	C	D
1.6	A	<del>B</del>	C	D
1.7	<del>A</del>	B	C	D
1.8	A	B	<del>C</del>	D
1.9	A	B	<del>C</del>	D
1.10	<del>A</del>	B	C	D
1.11	A	B	<del>C</del>	D
1.12	A	<del>B</del>	C	D
1.13	A	B	<del>C</del>	D

13x2=(26)

## QUESTION 1B

1.14 **Cooking methods**

1.14.1 B  
1.14.2 C  
1.14.3 A  
(Explanation) (3)

1.15 Eggs

1.15.1 D v  
1.15.2 C iv  
1.15.3 B i  
1.15.4 A iii  
(Know.) (8)

1.16 **Colour and texture**

1.16.1 A  
1.16.2 A  
1.16.3 B  
1.16.4 B

(Explanation) (4)

1.17 **Meat tenderness  
(Any order)**

B  
C  
D  
G  
H

(Know.) (5)

1.18 **Management process  
(Any order)**

A  
C  
E  
G

(Know.) (4)

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

## SECTION B

## QUESTION 2

## 2.1 Advantageous uses of micro-organisms

**Yeast**

- Raising agent for bread.
- Changes fruit juices into wine/beer.
- Necessary to change cabbage into sauerkraut.
- Necessary to change cucumbers into gherkins.

**Bacteria**

- Changes milk into yoghurt/cheese/sour cream/cultured or buttermilk.
- Necessary to change cabbage into sauerkraut.
- Necessary to change cucumber into gherkins.

**Mould**

- Used in the manufacture of penicillin.
- Used in the manufacture of some cheeses, e.g. blue cheese.

(Any 5 vvvvv)

(5)

(Explanation)

Food hygiene

Syll. 2.7

## 2.2 Rules to prevent food poisoning

CHIEF AREAS	EXAMPLE
<ul style="list-style-type: none"> <li>• Preservation of food</li> <li>• Hygiene in the kitchen</li> </ul>	<ul style="list-style-type: none"> <li>• Store in cool, dry conditions.</li> <li>• Store high-risk food in the fridge.</li> <li>• Store food in air-tight containers.</li> <li>• Keep all surfaces clean.</li> <li>• Wash all dirty equipment regularly.</li> <li>• Handle rubbish hygienically.</li> <li>• Throw cracked porcelain/crockery away.</li> </ul>
<ul style="list-style-type: none"> <li>• Food preparation</li> </ul>	<ul style="list-style-type: none"> <li>• Prepare perishable foods quickly.</li> <li>• Cook food thoroughly.</li> <li>• Cool food quickly and store in the fridge.</li> </ul>
<ul style="list-style-type: none"> <li>• Personal hygiene</li> </ul>	<ul style="list-style-type: none"> <li>• Wash hands well.</li> <li>• Keep nails short and clean.</li> <li>• Do not cough or sneeze over food.</li> <li>• Cover cuts or scrapes with a plaster.</li> </ul>

(Any 4 vvvv)

(4)

(Know.)

Food hygiene

Syll. 2.7

### 2.3 Effect of heat on bread

2.3.1 **Size:** Carbon dioxide gas bubbles expand when exposed to heat. Gluten network stretches, coagulates and sets as the baking process continues. Bread gets bigger. (2)

2.3.2 **Colour:** Dry heat dextrinises the starch and caramelises the sugar. Bread goes brown. (2)

(Application) Baked products Syll. 2.17

### 2.4 Aims in cooking vegetables

- To make the cellulose softer.
- To cook the starch.
- To retain as many of the minerals, vitamins and as much of the flavour as possible.
- To retain the natural colour of the vegetables.
- To improve the flavour and increase taste.
- To give a variety in the diet. (Any 4 vvvv) (4)

(Know.) Vegetables and fruit Syll. 2.14

### 2.5 Starch becomes thinner

Vigorous stirring will damage the walls of the swollen cells and the liquid that was absorbed during the gelatinisation period will flow out and the mixture will become thin. (4)

(Application) Starch Syll. 2.8

### 2.6 Drawing up a menu

- Use a variety of colour, texture and cooking methods.
- Do not use too many sharply flavoured dishes together.
- Do not use vegetables from the same family, colour or shape.
- Do not use too much starch in one meal.
- Do not serve a food (except bread) more than once a day.
- Do not serve the same food twice in a meal.
- Do not serve too many rich foods at the same meal.
- A hot and a cold dish complement each other at a meal.
- Do not serve a too large variety. (Any 4 vvvv) (4)

(Knowledge) Meal planning Syll. 2.1

## 2.7 Management principles in menu planning – economical (given)

2.7.1 MANAGEMENT PRINCIPLES	2.7.2 APPLICATION	
Setting goals	Meal must be economical.v	(1)
Planning how to reach them (Choosing among alternatives)	Plan which dishes to choose. Plan the shopping list.v	(1)
Carrying out the plan	Prevent impulsive buying.v Store foodstuffs correctly. Handle hygienically v	(2)
Evaluating progress/result	Evaluate the meal against the goal – was it economical?v	(1)
		(5)

(Application)

Meal planning

Syll. 2.1

**[30]****QUESTION 3**

## 3.1 Choux pastry

3.1.1 Raising agent  
steam v

(1)

(Know.)

Choux pastry

Syll. 2.17

## 3.1.2 Water and shortening cooked together

The butter melts and forms a layer around each starch granule and keeps them separate.v

This prevents the formation of lumps when the flour is added.v

(2)

(Comp.)

Choux pastry

Syll. 2.17

## 3.1.3 Temperate settings

High temperature is necessary to change water to steam. v

Reduce temperature to dry out the cavities properly.v

(2)

(Comp.)

Choux pastry

Syll. 2.17

## 3.1.4 Ingredient responsible for gelatinisation

Flour v

(1)

(Know.)

Starch

Syll. 2.8

### 3.1.5 Changes that take place during gelatinisation

a) **The granules swell**

- Heat energy breaks weak bonds in the starch granules.
- Water moves into the granule and it starts to swell.
- Swelling continues as the temperature is raised.

(any two vv) (2)

b) **Viscosity increases**

- As they take up water, they swell and take up more space.
- Friction is created between the granules.
- The starch paste becomes thicker.
- Resistance to stirring can be felt.

(any two vv) (2)

c) **Mixture becomes translucent/shiny**

- Granules take up more water and become swollen and fragile. v
- The mixture becomes translucent/shiny. v

(Explanation) Starch Syll. 2.8

(2)

### 3.1.6 Ingredients that reduce the thickening of starch

Sugar v  
Acidv

(2)

(Explanation) Starch Syll. 2.8

### 3.2 FOUR methods of coagulation of milk

**Natural coagulation:** v

- Occurs when lactic acid bacteria present in milk accumulates.
- The acid precipitates casein as a curd.v

**Addition of acid:** v

- Sufficient acid lowers the pH and causes the coagulation of casein. v

**Rennin coagulation**v

- Rennin, v an enzyme, is used to coagulate the protein/casein in milk.

**Plant enzymes** v

- Bromelin, an enzyme foundv in pineapples, coagulates milk

(Any two methods) (4)

(Know. And comp.) Milk products Syll. 2.8

### 3.3 Improving eating/keeping quality of milk

- UHT-treatment.
- Pasteurising.
- Homogenising.
- Sterilising.
- Purification.

(Know.)                                      Milk products                                      Syll. 2.9                                      (Any 4 vvvv)                                      (4)

### 3.4 Lettuce goes limp during storage - fridge

- Lettuce was not stored in air-tight container/plastic bag away from the convection currents (with high moisture content) inside the fridge. v
- Lettuce has a high moisture content and if exposed to air in the fridge, the moisture will evaporate, resulting in limp leaves. v

(Application)                                      Fruit and vegetables                                      Syll. 2.14

### 3.5 Function of eggs

COAGULATION	RISING AGENT	EMULSIFIER
Meat loafv	Lemon soufflé v	Mayonnaise v
Croquette v	Meringue v	Butter cakev

(Application)                                      Eggs                                      Syll. 2.10                                      (6)

**[30]**

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

## SECTION C

## QUESTION 4

## 4.1 Casserole

4.1.1 T.P.P is a manufactured food product that is designed and formulated to stimulate traditional foods/meats. Ideally the appearance, taste, texture and nutritional value should not differ from the traditional product. v v (2)

## 4.1.2 Extenders

- T.P.P v
- Potatoesv
- Peasv
- Diced carrots v (4)

## 4.1.3 Meat analogues are in demand

Animal proteins are expensive and scarce,v population growth an upward mobility and the need for a cheaper protein source developed. Soya beansv have the highest protein content and can be cultivated on a large scale. It is comparatively cheap. v (3)

(Know./comp./explanation)

Meat

Syll. 2.12

## 4.2 Use moderate heat to cook meat

High temperature will result in meat protein shrinkingv and force the meat sarcoplasm (juices) out and the meat will be tough and dry.v (2)

(Explanation)

Meat

Syll. 2.4 & 2.12

## 4.3 Guidelines for buying fresh fruit

- Appearance – fruit should be fresh, ripe, of good colour, without marks or blemishes.
- Flavour/smell – good quality fruit has a fresh, clean, fruity smell.
- Texture – good quality fruit feels firm and heavy for its size.
- Price – Buy fruit in season – cheaper and of best quality.
- Quantity – buy small amounts.
- Handling – do not handle fruit unnecessarily.

(Any 4v v v v )

(4)

(Know.)

Fruit and vegetables

Syll. 2.1.4

#### 4.4 4.4.1 Install florescent lights

- Produces 3-4 times more light than incandescent light bulbs with the same wattage.
  - Has a stronger life span.
  - Lights up the whole room/gives good general lighting.
  - Does not produce shadows.
  - Gives a whiter, softer light, more like daylight (Any 3 v vv) (3)
- (Comp.) Interior Syll. 3.1.1

#### 4.4.2 Good ventilation in the kitchen

- Doors and windows that can be opened. v
  - Extraction fans can be installed.v
  - A hood over the stove can be installed. v (3)
- (Know.) Interior Syll. 3.11

#### 4.4.3 Good traffic lanes

- The flat has good traffic lanes as there is free pathway from the entrance to any room.
  - Also from room to room.
  - Without going through a furniture arrangement.
  - Guests can go to the bathroom without going through the bedroom.
  - Movement through the kitchen will not interfere with anyone who may be cooking.
  - Doors are well positioned to allow free movement as well as easy arrangement of furniture.
  - Traffic goes around and not through the different work areas. (Any 4v v v v ) (4)
- (Application) Interior Syll. 3.1.1

#### 4.5 Value of shared responsibility

- It will increase their family unity.
  - It will make the home a pleasant place to live in.
  - It will encourage mutual respect for each other.
  - Ensure that both have more leisure time.
  - Sound communication patterns will be established.
  - Good personal habits developed.
  - An attitude of give and take will be developed.
  - If they share the load, it will give them both more leisure time; Thabang has more time to study, Beverly to practice her hobby.
  - The value of time allocation and co-ordination will learnt.
  - The individual capabilities will be discovered and their personalities developed. (Any 5v v v v v ) (5)
- (Application) Family studies Syll. 4.2

[30]

TOTAL FOR SECTION C: [30]

## SECTION D

## QUESTION 5

## 5.1 Maslow's hierarchy of needs

MASLOW'S NEEDS	EXAMPLE
5.1.1 Physical	Food, water, clothing, shelter, fresh air
5.1.2 Safety	To be free from fear and anxiety, danger and threats
5.1.3 Social	To be accepted, to love and to be loved and to have companionship
5.1.4. Ego/esteem	To be recognised, have self-respect, acknowledgement and status
5.1.5. Self actualisation	To develop one's potential to the full

(5)

(Know.)

Management process

Syll. 1.1.1

## 5.2 Evaluate budget

- It should allow for the needs of the family and the individual members.
- It should make provision for emergencies.
- It should ensure that the family remains solvent.
- It should give an indication of the family's long-term plans.
- It must be realistic.
- Expenditure must not exceed income.

(Any 4 v v v v)

(4)

(Application)

Income

Syll. 1.2.2

## 5.3 5.3.1 Division of household tasks

- Be flexible about who does what.
- Allow members to do what they are best suited to do.
- Allow every-one to help, regardless of age or gender.
- Make allowances if a family member has a crisis.
- Keep standards flexible.
- Biological factors – physical work is often more suited to a man.
- Take note of cultural and social values.
- Availability of human resources.
- Goods, services and facilities that are available.

(Any 5 vvvvv)

(5)

(Know.)

Home and enviro. care

Syll. 1.1.3

### 5.3.2 Human resources

- Knowledge of cleaning methods, products and equipment.
- Awareness of new products and equipment.
- Skills and capabilities.
- Creativity is the ability to be innovative.
- A positive attitude makes life so much easier.
- Standing plans or routines reduce the need to plan the standards and sequence of each activity.
- Time and energy.

(Any 5 vvvvv) (5)

(Application) Home and enviro. care Syll. 1.1.3

### 5.3.3 Negative emotional demands

- Too much to do, not enough time.
- Negative attitude to housework.
- Method of work.
- Lack of skills – may cause frustration.
- Monotony or boredom, all futile.
- Strenuous tasks/positions.
- Time consuming task, lack of equipment.
- Lack of appreciation.
- Wrong cleaning method may damage content.
- Spent too much energy.
- Not strong enough.

(4)

(Any 4vvvv )

(Comp.) Work study Syll. 1.1.3

### 5.4 Bank teller has sore feet

- She has to stand for a long time.
- Blood accumulates in her feet, blood flow is impaired, causing swelling and pain – leads to a feeling of tiredness.
- When she stands for a long period, her full weight is on her feet and they hurt.
- This causes muscle fatigue.

(Any 4v v v v )

(4)

(Explanation) Work study Syll. 1.1.4

### 5.5 Define proportion

- Proportion is the relationship of parts of a whole, v to one another and to the whole. v

(3)

(Know. ) Interior Syll. 3.1.1

**[30]**

## QUESTION 6

### 6.1 6.1.1 Family traditions

- Performance of certain routines, e.g. at mealtimes – grace.
- Celebration of special occasions, e.g. birthdays.
- Larger celebrations, e.g. weddings that unite the extended family.
- Occasions, e.g. family prayers, Sunday mealtimes and family T.V. viewing.vvv (3)

### 6.1.2 Family symbols

- Family photo's or albums.
- Family holiday experiences.
- Favourite jokes and stories.
- Family history and secrets.
- Endurance of periods of stress. vvv (3)

(Explanation)                      Family studies                      Syll. 4.7

### 6.2 Communication cycle

- Sender **v** – states in clear and unambiguous language what he/she feels. **v**
- Receiver **v** – listens attentively to what is said and gives meaning to the words and attitude of the sender. **v**
- Message **v** – a combination of verbal and non-verbal symbols. **v**
- Feed back **v** – response to the message. **v** (8)

(Know./comp.)                      Maintaining order                      Syll. 4.3

### 6.3 Electrical safety

- Electrical repairs/work should be carried out by a qualified electrician.
- There must be enough points (sockets) for all equipment.
- Plugs must be correctly wired.
- Broken plugs must be replaced.
- Switch electrical appliances, e.g. iron off when leaving the room.
- Do not pull plugs out of socket by their cords.
- Do not touch electrical appliances with wet hands.
- Use safety sockets covers.
- Use plugs and appliances with the SABS quality stamp. **vvvv** (4)

(Know.)                                      Interior                                      Syll.3.1.1

## 6.4 Decision-making process

STEPS IN DECISION MAKING PROCESS		
A	Identify the problem	<ul style="list-style-type: none"> <li>Needs to study – no money v (1)</li> </ul>
B	Identify alternatives	<ul style="list-style-type: none"> <li>Study part time and work v</li> <li>Get a loan v (1)</li> </ul>
C	Consider the consequences of <b>ONE</b> of the alternatives	<p><b>Part time</b></p> <ul style="list-style-type: none"> <li>Study will take longer, tired from working all day, miss out student life</li> <li>No debt at the end <b>vv</b> (2)</li> </ul> <p><b>Full time</b></p> <ul style="list-style-type: none"> <li>Finish study quicker</li> <li>Can take part in student life</li> <li>No debt to repay</li> <li>May not get loan <b>vv</b> (2)</li> </ul>
D	Make a decision	Will select one or the other i.e. part time / full time study <b>v</b> (1)
E	Evaluate the decision	<ul style="list-style-type: none"> <li>Take responsibility for decision</li> <li>Evaluation can only be done after study <b>v</b> (1)</li> </ul>

(Know)

Socialising

Decision Making

## 6.5 Socialising agents

- Friends.
- Family.
- School.
- Parents.
- Fellow pupils.
- Community.
- Teachers.
- Minister, priest, etc.

(Any 4 vvvv) (4)

(Know.)

Socialising

Syll. 4.3

(30)

**TOTAL: 200**