

## GAUTENG DEPARTMENT OF EDUCATION

## SENIOR CERTIFICATE EXAMINATION

## HOME ECONOMICS SG

**POSSIBLE ANSWERS OCT / NOV 2006**

## SECTION A

## QUESTION 1A

1.1	A	<del>B</del>	C	D
1.2	A	B	C	<del>D</del>
1.3	A	B	<del>C</del>	D
1.4	A	<del>B</del>	C	D
1.5	<del>A</del>	B	C	D
1.6	<del>A</del>	B	C	D
1.7	<del>A</del>	B	C	D

7x2= (14)

1.8 Cooking methods

- 1.8.1 D  
 1.8.2 C  
 1.8.3 A (3)  
 (Comp.)

1.9 Changes in meat

- 1.9.1 E  
 1.9.2 D  
 1.9.3 G  
 1.9.4 F  
 1.9.5 A  
 1.9.6 B (6)  
 (Explain)

1.10 Changes in red  
cabbage

- 1.10.1 A B E (3)  
 1.10.2 B D (2)  
 1.10.3 A E F (3)  
 1.10.4 A (1)  
 (Appl)

1.11 Changes in  
fruit

- ANY ORDER  
 B  
 D  
 G  
 H (4)  
 (Know)

1.12 Physical  
demands

- ANY ORDER  
 B  
 D  
 G  
 H (4)  
 (Explain)

1.13 Planning

- ANY ORDER  
 B  
 C  
 E  
 G (4)  
 (Know)

1.14 Community

ECONOMICS	COMMUNITY	POLITICS
E F (2)	B D (2)	A C (2)

(Appl)

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

## SECTION B

## QUESTION 2

## 2.1.1 CAUSES OF FOOD SPOILAGE

- ✓ Micro-organisms – yeast or mould
- ✓ Enzymes
- ✓ Non-enzymatic spoilage
- ✓ Oxidation
- ✓ Millard's Reaction
- ✓ Withering
- ✓ Insects and rodents vv
- ✓ Mechanical bruising
- ✓ Unhygienic handling
- ✓ Poor storage (Any 2) (2)

Knowledge	Food Hygiene	Syll 2.7
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## 2.1.2 PROTECTING FOOD AGAINST SPOILAGE

- ✓ High concentration of sugar
- ✓ Excluding air and exposing food to high temperature
- ✓ Reduce moisture content – chill or freeze in fridge or freezer
- ✓ Reduce temperature – freeze or refrigerate
- ✓ Use preservatives vv
- ✓ Smoking of food
- ✓ Chemicals like sulphur dioxide
- ✓ Pasteurisation of milk (Any 2) (2)

Knowledge	Food Hygiene	Syll 2.7
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## 2.2 CHANGES THAT TAKE PLACE IN EGGS DURING THICKENING PROCESS

- ✓ Protein denatures v
  - ✓ Coagulation takes place at 80°C v
  - ✓ Egg white changes to a solid, opaque white mass v
- (3)

Explanation	Eggs	Syll 2.10
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## 2.3 WAYS OF SERVING FISH

- ✓ Cold, cooked in a salad v
- ✓ Leftover fish made into a rechauffé v
- ✓ Made into a mould e.g. a mousse v
- ✓ Soup, e.g. bisque v
- ✓ As an hors d'oeuvre v (5)

Comprehension	Fish	Syll 2.11
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**2.4 EFFECT OF HEAT ON FISH**

- ✓ Fish collagen separates readily and fish flakes easily v
- ✓ Heat coagulates the muscle fibre proteins – collagen, and dissolves the gelatine v
- ✓ The colour changes from translucent to white (opaque) v
- ✓ Excess heat – fish shrinks excessively, and becomes tough and dry v (4)

Explanation	Fish	Syll 2.11
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**2.5 EFFECT OF RAW PINEAPPLE ON GELATINE**

- ✓ The enzyme bromelin in raw pineapple digests or hydrolyses the protein in gelatine
- ✓ A gel will not form vv
- ✓ The end product will not have set or the gel will have a weak texture (Any 2) (2)

Explanation	Gelatine	Syll 2.14
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**2.6 EVALUATION OF GIVEN MENU**

DISH	2.6 1 Basic Food Group	2.6.2. Portions
Chicken pie	Meat and alternativesv	1v
	Grain and grain productsv	1v
Rice	Grain and grain productsv	1v
Steam pudding	Grain and grain productsv	1v
Carrots	Fruit and Veggies Vitamin Av	1v
Beetroot	Fruit and Veggies Otherv	1v

(6)

(6)

Application	Meal planning	Syll 2.1
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**[30]**

### QUESTION 3

#### 3.1 RECIPE ANALYSIS

##### 3.1.1 INCLUSION OF AIR

- ✓ Beat yolkv
  - ✓ Sift dry ingredientsv
  - ✓ Beat egg white stifflyv
- (3)

Comprehension	Baked products	Syll 2.17
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##### 3.1.2 RAISING AGENT

- ✓ Chemicalv – baking powderv (carbon dioxide)
- (2)

Know (1) and Appl. (1)	Baked products	Syll 2.17
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##### 3.1.3 CHARACTERISTICS OF STIFF PEAK STAGE

- ✓ No longer foamy
  - ✓ Very small air bubbles
  - ✓ Mixture very white
  - ✓ Shiny, smooth and moist vvvv 4
  - ✓ Forms stiff peaks when beaters are lifted
  - ✓ Mixture slides if bowl is tipped – not flows (Any 4)
- (4)

Knowledge	Eggs	Syll 2.10
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##### 3.1.4 PHENOMENA IN MILK

###### a) Skin forms on the surface

- ✓ Gases are given off while heating the milkv
  - ✓ Milk albumin and milk globulin coagulate and rise to the surface with the fat and mineral saltsv
  - ✓ The gases and coagulated protein form small vesicles that make a frothv
  - ✓ Surface evaporation of water takes place and coagulated protein forms the skin
- (4)

###### b) Deposit on bottom of pot

- ✓ Caused by the precipitated whey proteinsv and calcium phosphatev
- (2)

Application	Dairy products	Syll 2.9
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#### 3.2 3.2.1 Rules to decrease the setting time of gelatine dishes

- ✓ Chill the ingredients
  - ✓ Chill the mould
  - ✓ Use a metal mould vvv
  - ✓ Add chilled liquid once gelatine has been dispersed (Any 3)
- (3)

Knowledge	Gelatine	Syll 2.14
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**3.2.2 PREVENT LUMPS IN STARCH**

- ✓ The starch granules must be screened before being thickened in the liquid
- ✓ This can be done by:
  - Mixing (suspending) them in a small amount of cold water (paste)
  - Separating them with grains of sugar vvv
  - Coating them with butter or oil (roux) (Any 3) (3)

Application	Cereals	Syll 2.8
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**3.3 STARCH THICKENED WITH EGGS****Reasons for the problem**

- ✓ Starch gelatinises at 95°C – 100°C. Too high for cooking eggsv
- ✓ Eggs coagulate at 60°C – 65°C. Too low for cooking starch v (2)

Knowledge	Cereals	Syll 2.8
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**3.4 MIXED SALAD****3.4.1 Ingredients that turn brown:**

- ✓ Avocado blocksv
- ✓ Banana slicesv
- ✓ Sliced green applesv (3)

**3.4.2 What causes the browning:**

- ✓ Exposure to air (oxidation)
- ✓ Partly enzyme action and vv
- ✓ Partly tannin component of food Any 2 (2)

**3.4.3 Prevention of browning of the ABOVE ingredients**

- ✓ Sprinkle with a citrus juice/acidv
- ✓ Prepare just before serving v (2)

Comprehension. (3) Explain (4)	Fruit and Veggies.	Syll 2.14
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**(30)****TOTAL FOR SECTION B: [60]**

## SECTION C

## QUESTION 4

## 4.1 MICROWAVE COOKING

- 4.1.1 Thin area becomes hard and dry / thick area is not cooked properly. v
- 4.1.2 Unevenly cooked – small portions will cook quicker and/or be ready before large portions. v
- 4.1.3 Food at the bottom will take longer to cook / uneven rate of cooking. v
- 4.1.4 Food will boil over. v (4)

Comprehension	Methods of cooking	Syll 2.4
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## 4.2 UNMOULDING A GELATINE MOULD

- ✓ Rinse the plate onto which the mould is to be un moulded with a little water to allow mould to be moved. v
- ✓ If the mould was not brushed or sprayed with oil, dip into hot water for a few seconds. v
- ✓ Cover the mould with a plate and quickly turn it over. v
- ✓ Shake lightly and allow mould to fall out on to plate. v
- ✓ Move the gelatine mould to the middle of the plate if necessary. v (5)

Knowledge	Gelatine	Syll 2.14
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## 4.3 BREAD BAKING

## 4.3.1 Heat transference

- ✓ Heat is reflected (**radiated**) off the black sides of the oven. v
- ✓ **Convection currents** circulate the heat around the bread in the oven. v
- ✓ Heat is **conducted** from the bread pan to the bread itself. v
- ✓ Heat is **conducted** through the dough v and the bread cooks. v (5)

Explanation	Baked Products	Syll 2.17
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## 4.4 DEVELOPING A WORKPLAN

- ✓ Recognise or identify problems that have an adverse effect on household routines.
- ✓ The family should set goals for the division of tasks.
- ✓ Establishing standards acceptable to the family
- ✓ Develop a plan with regard to
  - ÿ the family situation.
  - ÿ how often and how thoroughly the house should be cleaned.
  - ÿ total number of tasks that should be done regularly as well as those done occasionally.
  - ÿ time available. vvv vvvv
  - ÿ Evaluate continuously and adapt if the plan is not going well. (Any 7) (7)

Application	Home and environment	Syll 1.1.3
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4.5

4.5.1 **TYPE OF KITCHEN SHAPE**

- ✓ One-wall kitchen (1)

**DISADVANTAGES OF THIS KITCHEN SHAPE**

- ✓ Small kitchen
- ✓ Limited storage space vv (Any 2) (2)
- ✓ Work space is limited

Knowledge (2) Appl. (1)	Interior	Syll. 3.1.1
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4.5.2 **THREE KITCHEN AREAS**

- ✓ The food storage area (NOT fridge, pantry, storage cupboards) v
- ✓ The preparation area (NOT work area and the sink) v
- ✓ The cooking area (NOT stove, oven and portable electrical equipment) v (3)

Comprehension	Interior	Syll. 3.1.1
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4.5.3 **ARRANGEMENT OF AREAS FOR EFFICIENT WORK PERFORMANCE**

- ✓ These three areas must be positioned to allow for easy, efficient movement to save time and energy. Ideally they should form a triangle. v
- ✓ The sink is placed in the most important location because most of the work is done at the sink. v The cooking and mixing areas are placed so that the three areas form a triangle. The total distance between the three areas should not exceed 6,5 metres. This will allow enough space for movement without the distance being too big. v (3)

Knowledge	Interior	Syll. 3.1.1
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**[30]****TOTAL FOR SECTION C: [30]**

## SECTION D

## QUESTION 5

## 5.1.1 REQUIREMENTS FOR SUITABLE FLOOR AND WALL FINISHES

**Surfaces**

- ✓ must be durable. v
  - ✓ must withstand the hot, moist, greasy atmosphere in the kitchen.
  - ✓ must be smooth and easy to clean.
  - ✓ Ceramic tiles or laminated plastic sheeting should be provided on the walls above the work surfaces. v
  - ✓ Vinyl flooring with a cushion backing will help reduce fatigue created by standing for a long time. v
- (5)

Explanation	Interior	Syll. 3.1.1
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## 5.1.2 Analogous colour scheme

- ✓ Yellow, yellow-orange, orangevvv
- ✓ Red, red-orange, orange
- ✓ Yellow, yellow-green, green
- ✓ Red, red-purple, purple

(Any set BUT all three must be correct) (3)

Application	Interior	Syll. 3.1.1
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## 5.1.3 SAFETY RULES IN THE BATHROOM

- ✓ Bottom of the bath should be textured or have a non-slip mat
- ✓ Baths should have secure handholds
- ✓ Mats should be non-slip or securely fastened down
- ✓ Flooring should not become slippery when wet
- ✓ Floors should be electrically non-conductive
- ✓ No electrical sockets should be in the bathroom
- ✓ The electrical socket for a shaving point must be near the mirror
- ✓ Only special, permanently fixed heaters should be used in the bathroom
- ✓ Medicine cupboards should be out of reach of children vvvvvv (Any 6) (6)

Comprehension	Interior	Syll. 3.1.1
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## 5.1.4 CONTROLLING THE TEMPERATURE IN THE HOUSE

Motivation: (1)  
The bedroom number 1 faces west and will be very hot in summerv

**Methods of cooling the house:**

- ✓ Wide eaves at windows
- ✓ Awnings and blinds
- ✓ Curtains vvv
- ✓ Tinted glass (Any 3) (3)

Application	Interior	Syll. 3.1.1
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**5.2 SOCIALISATION DURING ADOLESCENCE**

- ✓ This is a time when a young person develops his/her own identity and becomes independent
- ✓ Teenagers must adjust to bodily and mental changes
- ✓ Teenagers begin to move away from their parents
- ✓ The influence of the peer group is important
- ✓ The peer group will help the teenager to determine his/her place in society.
- ✓ AND have an influential role in ending their period of dependence on adults  
v v v (Any 3) (3)

Knowledge	Family Studies	Syll 4.3
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**5.3 MANAGEMENT PROCESS**

- ✓ Goals: Everyone should have enough practical experience v
- ✓ Resources: ovenv
- ✓ Values: Clean kitchen for the next lesson what is important and what is less importantv (3)

Application	Management process	Syll 1.1.1
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**5.4 GUIDELINES FOR THE DIVISION OF WORK**

- ✓ Be flexible about who does what
- ✓ Allow everyone to do the job they are best suited to
- ✓ No one is too young to help. Everyone can do something
- ✓ Take everyone's personal schedule into account. Make allowance for someone who is having a crisis (availability)
- ✓ Keep standards flexible
- ✓ Biological factor e.g. men do more strenuous work
- ✓ Stereotyping e.g. women traditionally do housework and bring up the children  
vvvvvv Any 6 (6)

Knowledge	Home and environment	Syll 1.1.3
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**[30]**

**QUESTION 6**

6.1

<b>MONEY INCOME</b>	<b>NON-MONEY INCOME</b>	<b>FRINGE BENEFITS</b>
Salary	Use of own belongings – own house	House subsidy
Bonus cheque	Home production – veg./herb garden	Car subsidy
vv	Library vv	v v (Any 6)

(6)

Comprehension	Financial Management	Syll 1.2.2
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6.2 **GUIDELINES FOR BUDGETING**

- ✓ They must accept the limitations of their income.
- ✓ They must be more objective about their financial affairs.
- ✓ They should gain better insight into their needs and objectives.
- ✓ They should spend their money more purposefully and eliminate wasteful spending.
- ✓ They need to pinpoint faults in their present spending pattern.
- ✓ They need to plan better for the future and invest wisely.
- ✓ Their budget should be set up specifically for them.
- ✓ The budget should be flexible to provide for emergencies.
- ✓ Their budget should be realistic and not make impossible demands.

(Any 4) vvvv

(4)

Application	Financial Management	Syll 1.2.2
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6.3 **GENERAL RULES WHEN TAKING OUT INSURANCE**

- ✓ Take the type of insurance you can afford. Endowment policies are more expensive than whole life policiesv
- ✓ Make provision for your immediate needs as well as future needsv
- ✓ Have a savings element in your insurance v

(3)

Knowledge	Financial Management	Syll. 1.2.2
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6.4

<b>EMOTIONAL DEMANDS</b>	<b>EXAMPLE</b>
Work methods	Sand between her fingersv
Lack of skills	Battles to make straight rows in the gardenv
Lack of good household appliances	Vacuum cleaner is broken and she has to use the broomv
Strenuous work	Dawn has to work hard v

(4)

Application	Work Study	Syll 1.1.4
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6.5 **DEFINITIONS**6.5.1 **Resources**

Resources are goods and services that an individual or group has, and can use to achieve their goals. v

(1)

6.5.2 **Standards**

A standard is a measure or model, used for making comparisons. v

(1)

Knowledge	Management Process	Syll 1.1.1
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**6.6 LEVEL OF DECISION MAKING**

- 6.6.1 Routine decisionv
- 6.6.2 Extensive decisionv
- 6.6.3 Limited decisionv

(3)

Knowledge	Decision making	Syll 1.2.2
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**6.7 CONSTRUCTIVE CONFLICT**

- ✓ Take a positive attitude about their feelings, stick to your view, other people will respect you.
- ✓ Speak up and do not bottle up grievances. Problems will be solved immediately.
- ✓ Refrain from belittling or blaming each other.
- ✓ Be open minded and listen to each other's point of view. Listen properly.
- ✓ Stick to the issue and do not dig up old grievances.
- ✓ Show empathy for each other.
- ✓ Respect each other's feelings and views. vvvv
- ✓ Refrain from being intentionally stubborn and hard-headed. (Any 4) (4)

Explanation	Decision making	Syll 1.2.2
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**6.8 SHARED RESPONSIBILITIES**

- ✓ It increases family unity and strengthens family relationships.
- ✓ It encourages mutual respect.
- ✓ Capabilities are discovered and personalities are developed.
- ✓ The value of time allocation and co-ordination is learned.
- ✓ Lightens the load and gives them both more leisure time.
- ✓ An attitude of give and take is developed.
- ✓ Good personal habits are developed. vvvv
- ✓ Sound communication patterns are developed in the family. (Any 4) (4)

Explanation	Family Studies	Syll 4.5
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**(30)****TOTAL FOR SECTION D: [60]****TOTAL: 200**