GAUTENG DEPARTMENT OF EDUCATION SENIOR CERTIFICATE EXAMINATION

HOME ECONOMICS HG

OCTOBER / NOVEMBER 2005 OKTOBER / NOVEMBER 2005

TIME: 3 hours MARKS: 300

INSTRUCTIONS:

- ALL the questions are COMPULSORY.
- Number your answers exactly as the questions are numbered.
- Commence (start) each question on a **new page**.
- Answer Question 1A (1.1 1.23) (multiple-choice questions) of Section A on the answer sheet on the inside cover of your answer book.
- Answer Question 1B (1.24 1.34) of Section A as well as Sections B, C and D in your answer book.
- Use the suggested time guide below.

SUGGESTED TIME GUIDE

QU	ESTION NUMBER	MARKS	TIME
Section A	Question 1	100	60 minutes
Section B	Question 2	40	24 minutes
	Question 3	40	24 minutes
Section C	Question 4	40	24 minutes
Section D	Question 5	40	24 minutes
	Question 6	40	24 minutes
	TOTAL	300	180 minutes

SECTION A

QUESTION 1A MULTIPLE-CHOICE QUESTIONS

Indicate the correct answer by drawing 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:



- 1.1 The number of **servings** of milk and milk products AND meat and meat alternatives which should be eaten **daily** are _____.
 - A. one and two
 - B. two and two
 - C. two and three
 - D. three and four
- 1.2 Which TWO **factors** were **not** taken into consideration when planning the following meal?

Steamed hake, boiled potatoes, steamed cauliflower and baked rice pudding

- 1. Form
- 2. Colour
- 3. Texture
- 4. Cooking method
- A. 1 and 2
- B. 2 and 3
- C. 3 and 4
- D. 1 and 4
- 1.3 Which one of the following groups of food can be **poached**?
 - A. Steak and peas
 - B. Liver and marrow
 - C. Fish and eggs
 - D. Lentils and beans

- 1.4 When **nutrients**, for example, vitamin A and vitamin D, are **added** to low fat milk powder, the process is known as _____.
 - A. standardisation
 - B. homogenisation
 - C. purification
 - D. fortification
- 1.5 The change in **egg white** as it changes from a clear transparent fluid to an opaque, **solid mass** is known as _____.
 - A. emulsification
 - B. denaturation
 - C. coagulation
 - D. curdling
- 1.6 Which of the following statements are correct with reference to **mayonnaise**?
 - 1. It forms an oil-in-water emulsion.
 - 2. The egg white stabilises the emulsion.
 - 3. A colloidal solution is formed with heat.
 - 4. The emulsifying agent combine with the vinegar.
 - A. 1 and 2
 - B. 1 and 4
 - C. 2 and 3
 - D. 2 and 4
- 1.7 Examples of **shellfish** are _____.
 - A. snoek and mussels
 - B. crayfish and kabeljou
 - C. lobster and hake
 - D. crabs and oysters
- 1.8 Evaluate the effect of the following process on **cubed pieces of stewing steak:**

Sear in a little hot oil and simmer for 90 minutes in a tomato-based sauce.

Meat will be _____.

- A. tough, dry and stringy
- B. flavourless, tender but dry
- C. tender, tasty and moist
- D. spicy, tough and well-cooked

- 1.9 When **proteins** shrink and lose their water-binding capacity _____ takes place.
 - A. coagulation
 - B. denaturation
 - C. syneresis
 - D. retrogradation
- 1.10 Lamb stew is cooked in sufficient liquid **below** boiling point. The best **cooking utensil** for this dish is a _____.
 - A. slow cooker
 - B. double boiler
 - C. pressure cooker
 - D. waterless saucepan
- 1.11 The two main components of **meat protein** are _____.
 - 1. gluten
 - 2. casein
 - 3. myosin
 - 4. actin
 - A. 1 and 2
 - B. 2 and 3
 - C. 3 and 4
 - D. 1 and 4
- 1.12 The following proportion should be used for a **gelatine pudding** which contains pieces of fruit:
 - A. 5 ml gelatine to 250 ml water
 - B. 15 ml gelatine to 250 ml water
 - C. 25 ml gelatine to 250 ml water
 - D. 50 ml gelatine to 250 ml water
- 1.13 The **natural** environment provides for _____.
 - A. opportunities for social and political interaction
 - B. basic needs for food, water and housing
 - C. the cultivation of disease-resistant plants
 - D. the construction of roads and buildings

1.14 Which of the following steps form part of the planning phase of the **management process**?

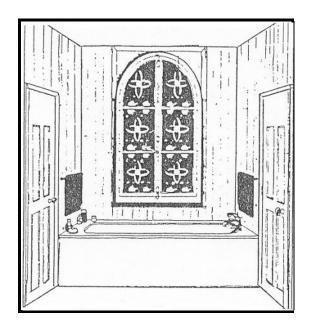
- 1. Set and clarify goals.
- 2. Evaluate the results.
- 3. Determine and allocate resources.
- 4. Check and adjust the plan.
- A. 1 and 3
- B. 1 and 4
- C. 2 and 3
- D. 3 and 4
- 1.15 Identify which **unit** does NOT belong to the **work triangle** in a **corridor** kitchen.
 - A. Fridge
 - B. Sink
 - C. Stove
 - D. Serving area
- 1.16 If a soldier stands at attention for a long period of time, his muscles could become fatigued and tired. This **condition** is known as _____ muscle contraction.
 - A. dynamic
 - B. rhythmic
 - C. static
 - D. restricted
- 1.17 Affective human resources include _____.
 - A. hearing and sight
 - B. money and time
 - C. feelings and emotions
 - D. space and equipment
- 1.18 Identify a combination of possible **deductions** from a family's monthly income.
 - A. Housing subsidy, club membership, water and electricity
 - B. P.A.Y.E., medical aid, pension fund contributions
 - C. Housing loan instalments, dividends, overtime payments
 - D. Insurance policy premium, interest on investments, banking fees

- A. it offers considerable tax advantages
- B. contributions may be temporarily stopped if necessary
- C. it is a public pension scheme open to anyone
- D. it is an important part of a pensioner's financial planning
- 1.20 Evaluate the effect of the following on a small, south-facing room.

The ceiling and the walls are painted dark maroon, with contrasting window frames and well-proportioned furniture.

This will make the room appear _____.

- A. larger, cooler, but cluttered
- B. smaller, warmer and have a lower ceiling
- C. more spacious and warmer with a high ceiling
- D. cooler, smaller and its furniture will be in harmony.
- 1.21 Which of the following statements are **correct** with reference to the sketch below?



- 1. Horizontal lines dominate.
- 2. The doors and windows provide formal balance.
- 3. Design is shown through the lines of the bath.
- 4. The window forms the focal point of the room.
- A. 1 and 2
- B. 2 and 4
- C. 3 and 4
- D. 1 and 3

P.T.O.

1.22 Which of the following factors will promote **family unity**?

- 1. The Smith family go to church together every Sunday.
- 2. Mrs Shabalala is saving money in case her daughter wants to go overseas.
- 3. A child's birthday dinner is a custom in the Diva family.
- 4. Mary always works in her garden on Thursday mornings when the children are at school.
- A. 1 and 3
- B. 2 and 3
- C. 2 and 4
- D. 3 and 4
- 1.23 Which of the following are examples of a **family's involvement** in the political system of the country?
 - 1. They abide by the country's laws and regulations.
 - 2. They belong to the Wildlife Society.
 - 3. When they are old enough, they can exercise their right to vote.
 - 4. The father is a member of the neighbourhood watch.
 - A. 1 and 3
 - B. 2 and 3
 - C. 2 and 4
 - D. 3 and 4

23x2=**(46)**

QUESTION 1B

Answer the rest of this section in your answer book.

1.24 Match the **explanation** in **Column B** to the **process** that occurs in a milk tart in **Column A**. Write only the question numbers (1.24.1 - 1.24.5) below one another in your answer book and then the letter (A – G) of your choice next to the corresponding question number, e.g. 1.24.6 - H.

COLUMN A		COLUMN B		
	PROCESS		EXPLANATION	
1.24.1	Reversible swelling	A	As the milk tart cools, a three- dimensional network forms in which water is trapped.	
1.24.2	Dextrinization	В	Liquid surrounds each starch granule as a paste is made to prevent lump formation.	
1.24.3	Gelatinisation	С	The starch molecules pull together in an organised, crystalline manner as the milk tart cools.	
1.24.4	Retrogradation	D	After two days the gel network of the milk tart shrinks and pushes water out of the gel.	
1.24.5	Syneresis	E	Starch granules in the paste absorb water and swell, but can return to their previous dried-out state.	
		F	Cornflour starch granules in the paste tend to revert to an insoluble state.	
		G	The base (crust) of the milk tart develops a golden brown colour during baking.	

(5)

(5)

1.25 Match the effect of an acid or alkali medium in Column B with a pigment in Column A. Write the question numbers (1.25.1 - 1.25.5) below one another in your answer book and then the letter (A - G) of your choice next to the corresponding question number, e.g. 1.25.6 - H.

COLUMN A			COLUMN B		
PIGMENT			EFFECT OF ACID OR ALKALI MEDIUM		
1.25.1	Anthocyanins in acid.	A	Stable, no change		
1.25.2	Antocyanin in alkali	В	Bleaches to white		
1.25.3	Carotenoids in acid	С	Turns black in an alkali medium		
1.25.4	Chlorophyll in acid	D	Changes to bright green colour		
1.25.5	Chlorophyll in alkali	Е	Intensifies red colour		
		F G	Changes to drab green colour Fades to drab red colour		

1.26 **Maslow's Hierarchy of Needs.** Select TWO examples from **Column B** to match each **need** in **Column A**. Write the question numbers (1.26.1 - 1.26.4) below one another in your answer book and then only the **letter** (A - J) of your choice next to the corresponding question number, e.g. 1.26 - K and L.

COLUMN A			COLUMN B		
MASLOW'S NEED		EXAMPLE			
1.26.1	Social need	A	Jenny does not walk alone in the streets at night.		
1.26.2	Physical need	В	John is proud of his silver medal for his school project.		
1.26.3	Self-esteem (Ego) need	С	Peter wants to become an eye specialist after he qualifies as a doctor.		
1.26.4	Safety need	D	Mpho appreciates the acknowledgement of her top achievement.		
		Е	Jessie invites friends to a swimming pool party.		
		F	Thabo organises the after party for the matric dance.		
		G	Emily eats healthily to remain slim.		
		Н	Siada wears a Medic Alert bracelet around		
			her wrist as she is allergic to bee-stings.		
		I	Sibiso plays soccer every weekend.		
		J	Janet is training to be a top ballerina and		
			wants to dance internationally.		

(8)

by Roman numerals (i to iv) e.g. 1.27.5 – E – v.

COLUMN A		COLUMN B			COLUMN C	
	MISTAKE		RESULT		REASON	
1.27.1	The batter is baked at 150°C for 15 minutes.	A	The fat oozes from the batter during baking.	i	Too much water evaporates and the proportions of the ingredients are altered.	
1.27.2	The water and fat are cooked for too long before the flour is added.		The puffs do not retain their risen form and collapse when taken out of the oven.	ii	The egg and flour proteins have not had enough time to set (coagulate) properly.	
1.27.3	The ratio of the fat to the other ingredients is too high.		The paste is too stiff.	iii	The fat could not be emulsified sufficiently as there was not enough egg.	
		D	The pastry will contain lumps.	iv	Egg was not folded in correctly.	

1.28 Select from the list below FIVE statements that are true concerning the **pasteurisation of milk**. Write down the question number (1.28) and the FIVE letters (A - J) of your choice **below one another** in your answer book.

TELIDIO		17
TEURIS		ĸ
		- 1 \

- B There is no loss of riboflavin.
- C Becomes rancid easily as a result of large surface exposure to oxygen.
- D The milk is heated to 72,5°C for 15 seconds.
- E It is easier to digest than homogenised milk.
- F After heating it is rapidly cooled to 4°C.
- G This treatment allows the milk to be kept for long periods if unopened.
- H Pathogenic organisms such as tuberculosis are destroyed.
- I The milk is heated to 104°C and cooled gradually.
- J Pasteurisation will toughen the milk proteins if incorrectly applied.

(5)

(6)

1.29 Select from the list below FOUR advantages of using **meat analogues**. Write down only the question number (1.29) and the FOUR letters (A – H) of your choice **below one another** in your answer book.

ADVANTAGES OF USING MEAT ANALOGUES

- A Freezing does not affect the structure of meat analogues.
- B Meat analogues can be stored at room temperature.
- C They supply protein of a high biological order.
- D They have a high fat and protein content.
- E They are cheaper and more economical than meat.
- F They contain a high ratio of muscle fibre to connective tissue.
- G Meat analogues are susceptible to micro-organism spoilage.
- H They should be stored in the freezer if kept for a long time before using.
- 1.30 Select from the list below FOUR properties of frozen fish. Write down the question number (1.30) and the FOUR letters (A H) of your choice below one another in your answer book.

PROPERTIES OF FROZEN FISH

- A Fish should be frozen solid when bought.
- B The tissue should be firm and elastic to the touch.
- C Only a faint or no smell should be detected.
- D There should be air spaces between the pieces of fish.
- E There should be no discolouration of the fish.
- F The fish should have a fresh 'fish' smell.
- G Packaging material should be air- and moisture-proof.
- H The gills should be a clear pink colour.

1.31 Select from the list below THREE **dishes/foods that use egg foam.** Write down the question number (1.31) and the THREE letters (A – F) of your choice **below one another** in your answer book.

DISHES / FOODS THAT USE EGG FOAM

- A Mayonnaise B Salmon Mousse
- C Meringues
- C Meringues
- D Rich shortcrust pastry
- E Milk bread
- F Tuna Soufflé

(3)

(4)

(4)

12

1.32 Select from the list below FOUR factors that influence decision-making. Write down the question number (1.32) and the FOUR letters (A – H) of your choice below one another in your answer book.

	FACTORS THAT INFLUENCE DECISION-MAKING				
А	Roles and aspirations				
В	A good imagination				
С	Family resources				
D	Reliable friends				
Е	Integrated management skills				
F	Family characteristics				
G	Viable alternatives				
н	Personal values				

(4)

1.33 Select from the list below FOUR **statements that relate to human values**. Write the question number (1.33) and the FOUR letters (A – H) of your choice **below one another** in your answer book.

	RELATING TO HUMAN	
JIAILWILNIJI		N VALULS

- A Values determine how a person will act or react.
- B Values have little influence on day-to-day decision-making.
- C Values are abstract.
- D Values give meaning and sense to life.
- E Values are non-complex.
- F Values change slowly and gradually with maturity.
- G Values should be realistic and attainable.
- H Values of older people are better as a result of life experiences.

(4)

1.34 At a modern wedding the bride made use of different colour harmonies.
 Write down the question numbers (1.34.1 – 1.34.6) below one another in your answer book and identify the colour harmonies used in each instance.

1.34.1	The bride wore a light pink dress, dark pink shoes and just a hint of
	pink in her veil.
1.34.2	The groom wore a black and white striped waistcoat, his shirt was
	white, his trousers and shoes black.

- 1.34.3 The mother of the bride wore a yellow suit, a yellow-green blouse and a green hat.
- 1.34.4 The tables were decorated with big yellow sunflowers and purple heather.
- 1.34.5 The tablecloths were patterned in yellow, red-purple and bluepurple.
- 1.34.6 The bridesmaid's dresses were in red, blue and yellow.

(6)

TOTAL FOR SECTION A: [100]

SECTION B

QUESTION 2

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

Simon and Maybel are celebrating their third wedding anniversary with a special dinner for their friends. Study the menu below and answer the questions that follow.

MENU	
DINNER	
HAKE MAYONNAISE	
TOMATO SOUP CROUTONS	
BEEF STEW RICE TOMATO AND ONION SALAD AVOCADO MOULD	
CREAM PUFFS	
	15 JULY 2005

2.1 Redraw the table below and answer Questions 2.1.1 – 2.1.4 in table format.

2.1.1	2.1.2	2.1.3	2.1.4
Five food groups	Food from menu	Cooking method	Cooking medium used

2.1.1	Name the five food groups represented in the menu.	(5)
2.1.2	Using only foods from the menu , give an example for each food group.	(5)
2.1.3	Suggest a cooking method appropriate for each food in Question 2.1.2.	(5)
2.1.4	Identify the cooking medium used in the suggested cooking method.	(5)

2.2	While making white sauce, care is taken NOT to brown the roux, yet while making gravy, the roux IS browned and although the same amount of flour is used, the gravy is thinner. Explain the difference in the results.		
2.3	The fresh tomato soup curdled while Maybel was making it, and she had to replace it with tinned tomato soup.		
	2.3.1	Explain why the soup curdled.	(2)
	2.3.2	Suggest how this could have been prevented.	(2)
	2.3.3	Would the fresh tomato soup have the same Vitamin C-content as the tinned tomato soup? Substantiate your answer.	(3)
2.4	Maybel has found a recipe for very basic yeast dough. The ingredients were flour, yeast and water. She wants to make a more substantial dough to make Chelsea Buns. Suggest which ingredients she should use and give reasons for why she should use each of these ingredients.		(8) [40]

QUESTION 3

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

Maybel did not have a recipe for making beef stew, but made it the following way:

	BEEF STEW
	Method:
	 She cubed the stewing steak. Then she rolled it in seasoned flour. She quickly fried the cubes in hot oil. 75 ml beef stock was added. She simmered it for 30 minutes. 10 minutes before the end she put in pieces of cubed potato. The salt was added just before serving. The meat and gravy were served together.
3.1	Analyse the method above and assess (evaluate) the effectiveness of EACH step. The evaluation can be positive and negative.
3.2	Explain the changes that would take place in the connective tissue if the meat had been left to simmer for 60 minutes.
3.3	Rigor mortis had taken place in the meat before it was cut up. Explain what happens when rigor mortis takes place and how it effects meat.
3.4	The difference between a salad dressing and a mayonnaise is that mayonnaise does not separate when left to stand. Identify the substance responsible for this and explain its function.

3.5	Describe the effect of the following additives o	n beaten egg-white foam.	

3.8		n C is easily lost during the preparation of vegetables. Explain how the ig steps could prevent this loss . Vegetables are bought in small quantities.	
	3.7.3	The fruit becomes sweeter.	(3)
	3.7.2	Texture softens	
	3.7.1	Change in colour	
3.7	Explain	the following changes that take place when fruit ripens:	
	3.6.4	The mould would not come out of the container.	(4)
	3.6.3	The mould shrunk and had a watery appearance.	
	3.6.2	The mould tasted of curry, although NO curry was used.	
	3.6.1	The cubes of avocado were brown in colour.	
3.6		ocado mould was a failure . Suggest possible reasons for each of the g problems:	
	3.5.1 3.5.2 3.5.3 3.5.4	Egg yolk Lemon Juice Salt Sugar added at the beginning of the beating time	(4)

TOTAL FOR SECTION B: [80]

SECTION C

QUESTION 4

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

- 4.1 Explain what could cause the **quality** of the following foods to **deteriorate** during **storage**:
 - 4.1.1 Potatoes
 - 4.1.2 Milk powder
 - 4.1.3 Rice
 - 4.1.4 Eggs
 - 4.1.5 Fish

(5)

17

- 4.2 Simon is often away on business. When he is not at home, Maybel **eats out** a lot or has **take-aways**. She also eats a lot of **snacks** while watching TV.
 - 4.2.1 Identify the problems associated with this **choice of diet**. (4)
 - 4.2.2 Maybel should not snack. However there are groups of people who (3) need to snack. Name THREE groups of people who should snack.
- 4.3 Evaluate the **validity** of each of the following statements:
 - 4.3.1 Baking tins which are used to bake rich fruit cakes for a long time, should be lined with a few layers of brown paper.
 - 4.3.2 It is not necessary to use pot holders when holding a hot saucepan that has hollow metal handles.
 - 4.3.3 When cooking potatoes wrapped in tinfoil in a fire, the shiny side of the tin foil should be on the inside.
 - 4.3.4 Refrigerators are usually white on the outside.

(8)

André, Maybel's brother, passed Grade 12 at a *private school* last year. He wanted to go to *university* but does not have the money. He looks everywhere in the *labour market* but cannot find a suitable job. His *neighbours* and *friends* all help him to look. Finally, he answers an *advertisement* for an *international firm* and he gets a job abroad in *America* picking fruit for the summer.

4.4 Analyse the underlined words in the paragraph above and decide whether each one belongs in the **micro- or macro-environment**. Copy this table into your answer book and tabulate your answer.

MICRO-ENVIRONMENT	MACRO-ENVIRONMENT	
		(8)

4.5	Explain each of the following characteristics of resources:			
	4.5.1 4.5.2 4.5.3	Usefulness Accessibility Interchangeability	(3)	
4.6	Name t	he following types of decisions:		
	4.6.1	A decision to choose a good neighbourhood to live in		
	4.6.2	A decision that everyone in the family will keep his or her room clean		
	4.6.3	A decision to travel to work by bus as it is cheaper than taking the car	(3)	
4.7		approaches the care and cleaning of her home in a totally different an her great-grandmother. Expand on this statement with reference to owing:		
	4.7.1 4.7.2 4.7.3	Time available Standards for cleaning the house Housekeeping routines	(6) [40]	
		TOTAL FOR SECTION C:	[40]	
		SECTION D		
		QUESTION 5		
Start C	uestion	5 on a new page in your answer book.		

5.1 Read the case study and answer the questions that follow.

Simon and Maybel budget carefully every month. Simon earns a gross salary of R7 000 per month. R2 480 is deducted for income tax, R800 for pension and R500 for medical aid. Maybel earns R3 690 nett. She rears chickens to supplement their food and sells the eggs for extra income.

- 5.1.1 Name TWO **non-money** incomes from the case study. (2)
- 5.1.2 Explain the difference between **gross** income and **nett** income. (2)
- 5.1.3 List THREE pitfalls that Simon needs to be aware of, to ensure that his **pension** will be **adequate** when he **retires** one day. (3)
- 5.1.4 Classify **money income** into THREE groups. (3)

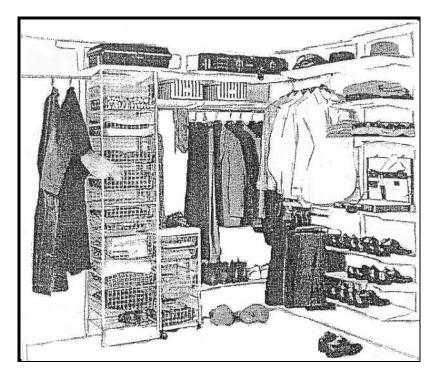
(8)

(4)

5.2 Read the passage below and answer the questions that follow.

As they both go out to work and their present house is big, they share the housework. Maybel spends energy clearing the bathroom and thoroughly vacuums the carpets over the weekends. Simon draws up a shopping list for the week's groceries and often brings home a small gift to show Maybel he appreciates her. Simon studies in the evenings while Maybel sometimes looks for recipes on the Internet. They each have the same amount of money to spend on their hobbies.

- 5.2.1 Identify FOUR **non-human resources** from the case study. (4)
- 5.2.2 Identify FOUR human resources from the case study and classify them as either: cognitive, affective, time or psychomotor.
- 5.3 List FOUR aspects that should be considered when **planning a bedsitter** to ensure that it is **functional**.
- 5.4 Predict THREE factors for each of the following **demands** that could be made on a **person when selling hot dogs at a school fête**.
 - 5.4.1Emotional demands(3)5.4.2Physical demands(3)
- 5.5 Analyse the picture below and evaluate whether the **basic principles** for **storage have** been applied.



(8) **[40]**

QUESTION 6

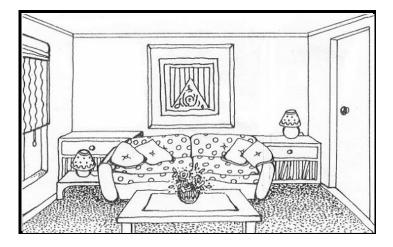
Start Question 6 on a new page in your answer book.

6.1 Study the floor plan of the couple's home and answer the questions that follow.



6.1.1	Indicate whether the patio should face south, north or west.	(1)
6.1.2	Identify the type of kitchen layout on the floor plan.	(1)
6.1.3	Name THREE other types of kitchen layouts.	(3)
6.1.4	Evaluate the traffic patterns found in the lounge. Comment on positive as well as negative aspects .	(4)
		(3)
measur	es he can implement with reference to the swing door between the	(4)
	6.1.26.1.36.1.4Apart from this houtSimon is measured	 6.1.2 Identify the type of kitchen layout on the floor plan. 6.1.3 Name THREE other types of kitchen layouts. 6.1.4 Evaluate the traffic patterns found in the lounge. Comment on

- 6.4 Maybel often runs short of time to do all the things she needs to do in a day. Suggest FIVE guidelines that she could follow to use her time more effectively. (5)
 6.5 As they both work, the sharing of the housework has strengthened their marriage. Explain the importance of shared responsibilities. (5)
- 6.6 Simon & Maybel are planning to **adopt a toddler**. Explain how they need to **adapt** to the situation.
- 6.7 Study the sketch below of a lounge and answer the question that follows.



Analyse the room which has been decorated in a green monochromatic colour scheme with reference to TWO design elements and THREE principles.

(10) **[40]**

(4)

- TOTAL FOR SECTION D: [80]
 - TOTAL: 300