



14.0 HOME SCIENCE (441)

The year 2006 KCSE Home Science examination tested the candidates' mastery of knowledge and skills specified in the syllabus. The paper format changed from that of the previous years. However, the number of papers remained the same. The individual papers were as follows:

Paper 1 (441/1): This is a theory paper divided into sections *A*, *B* and *C*. *Section A* consisted of compulsory short answer questions worth 50 marks. *Section B* questions were compulsory and it covered applied practices in Home Science. *Section C* consisted of three (3) essay questions each worth 25 marks of which candidates were expected to choose and answer two (2).

Paper 2 (441/2): This was a practical paper which tested skills in clothing construction worth 50 marks.

Paper 3 (441/3): This was also a practical paper testing skills in Foods and Nutrition and it was worth 30 marks.

For purposes of computing the results, the scores of *papers 2* and *3* are added to form *paper 2*. This report attempts to give an overview analysis of the performance of candidates by highlighting areas where candidates performed poorly. This, it is hoped, will provide teachers with useful information to enable them improve their teaching and learning strategies in order to improve candidates' future performance.

14.1 GENERAL CANDIDATES' PERFORMANCE

The table below shows the candidature and the overall performance in the KCSE Home Science examination in the year 2006.

Table 17: Candidates' Overall Performance in Home Science in the Year 2006.

Year	Paper	Candidature	Maximum Mark	Mean Score	Standard Deviation
2006	1		120	62.47	14.06
	2		80	35.18	8.25
	Overall	10,571	200	97.65	20.00

In this part of the report, an analysis of performance and a discussion of questions which candidates performed poorly will be made.

14.2 PAPER 1 (441/1)

14.2.1 Section A

The *twenty two* (22) questions in this section were compulsory. The questions in this section were generally well done. Candidates' performance was however poor in *questions 1, 11, 14, 15, 18, 21, 22, 23* and *25 (b & c)*.

Question 1

List four diseases in the immunisation schedule for babies.

This question expected candidates to have mastered immunisable diseases for babies.

Weaknesses

Many candidates failed to distinguish between immunisable diseases and vaccines used for immunising babies. They ended up listing the various vaccines administered to babies.

Expected Responses

- Tuberculosis.
- Diphtheria.
- Whooping cough/pertussis.
- Tetanus.
- Hepatitis B.
- Polio.
- Measles.
- Yellow fever.

Teachers are reminded to ensure that they clearly bring out the differences between diseases in the immunisation schedule of a child and the vaccines administered for each disease at the various stages of a baby's development.

Question 11

Suggest two reasons for food fortification.

The candidates were expected to have had an in-depth knowledge in food fortification. This was a new topic in the Home Science syllabus.

Weaknesses

The candidates' responses showed a total lack of knowledge of the reasons for food fortification. In fact, most candidates had no idea what "*food fortification*" meant.

Expected Responses

- To improve appearance.
- To treat nutritional disorders.
- For enriching the diet when one is aware that certain nutrients are lacking.
- To improve flavour.
- To improve texture.

Teachers should teach new terms/concepts that have been introduced in the Home Science syllabus.

Question 14

Suggest the ideal positions for a pit latrine in a homestead.

The question tested candidates' ability to identify the correct position in a homestead for a pit latrine. Pit latrines have suitable positions for their placement in a homestead.

Weaknesses

Most candidates did not know the difference between pit latrines and toilets. Their responses were geared towards toilets therefore irrelevant to the question.

Expected Responses

- Away from the main house.
- Away from the main entrance to the homestead.
- Away from a water source.
- At the home's lowest level.
- Wind blowing from the house to the latrine.

Teachers should ensure that they bring out the differences between pit latrines and toilets when teaching. They should enlighten their candidates on why pit latrines should be carefully positioned in a homestead.

Question 15

State two factors that may make consumers to buy second hand clothes.

The question required candidates to come up with factors that would lead a person to buy second hand clothes.

Weaknesses

A good number of candidates assumed that second hand clothes are only bought by poor people and responded along that line only. Some candidates misunderstood the question to be "*the disadvantages of buying second hand clothes*".

Expected Responses

- Relatively cheap.
- Unique in style and design.
- Come in high quality fabrics.
- Readily available.

Teachers should emphasize to the candidates the importance of reading questions carefully before attempting to answer them.

Question 18

Identify two ways of storing dressmakers' pins.

In this question, candidates were expected to know qualities of dressmakers' pins which make them to be stored in a particular way.

Weaknesses

Most candidates did not know how dressmaker's pins are stored. It is likely that they never handled their storage practically during clothing construction.

Expected Responses

- Sticking them in a pin cushion.
- Placing them in a pin holder.
- Placing them in a well lined metal container/bottle/plastic.
- Using a magnet.

Storage of pins is better taught practically when teaching needlework tools, equipment, stitches

and garment construction. Teachers should encourage their students to store pins appropriately and to make pin cushions.

Question 21

Identify three functions of openings on a garment.

This was a clothing and textiles question on functions of openings on a garment.

Weaknesses

Most candidates lacked knowledge on the role openings play in a garment. They confused openings with fastenings.

Expected Responses

- To facilitate wearing and removing of garment.
- For decorative purposes.
- To allow for close fitting of a garment.

Teachers should ensure that they expose their students to practicals on fastenings and openings and bring out their functions on garments clearly.

Question 22

Mention three qualities of a well made hem.

In this clothing and textiles question, candidates were expected to know what a hem is before knowing the qualities of a well made hem.

Weaknesses

Majority of candidates failed to narrow down the question to hems. They instead gave general responses on well finished edges therefore losing marks.

Expected Responses

- Hems should not show on right side unless they are decorative.
- Should have an even width/depth.
- Should lie flat/be smooth.
- Should be firmly stitched.
- Raw edges should be well concealed.
- Should be made using appropriate stitches.
- Should be of appropriate width.
- Stitches should be evenly distributed.
- Stitches should not show on the right side for a regular hem/slip hem.

It is imperative that teachers are specific on qualities of well made hems when teaching the topic on edge finishings. They should also guide the students in making samples of hems.

14.2.2 Section B

Question 23

You are intending to host a birthday party for your younger brother.

- (i) *Give the procedure of how you would thoroughly clean a cemented floor of the room you will use.*
- (ii) *Describe how you would wash a fast coloured cotton table cloth to be used during the party.*
- (iii) *Outline the steps you would follow when cleaning water glasses to be used during the party.*

This question was on applied practices in Home Management. Candidates were expected to read and understand the questions before giving the procedures for cleaning a cemented floor and steps followed when cleaning water glasses. They were also required to know the procedures followed when washing a fast coloured cotton table cloth.

Weaknesses

Candidates' responses indicated a glaring absence of practicals in Home Management. To be able to score in this question, one must have been exposed to a lot of practice. Candidates gave general information and brief methods on each task asked. They lacked procedures which was an important aspect of the question. Candidates also rushed into answering question (ii) by giving responses suitable for loose coloured articles where they treated the article with salt.

Expected Responses

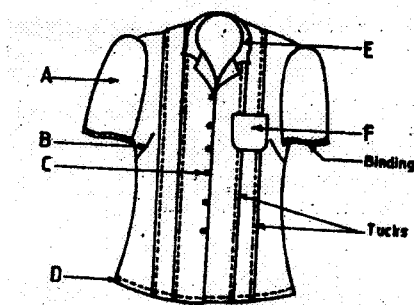
- i)
 - Prepare the room for cleaning: any kind of preparation for the room e.g. move furniture, removing rugs/mats.
 - Clean/Sweep the room starting from the furthest corner towards the door.
 - Scrub a small portion at a time using cold soapy water.
 - Rinse thoroughly using clean water.
 - Dry using an absorbent cloth/mop.
 - Repeat the process to the end overlapping the portions.
 - Rearrange the room.
- ii)
 - Wash in warm soapy water using friction method.
 - Rinse in warm water.
 - Final rinse in cold water (starch or spray starch at finishing).
 - Hang straight on a clean clothes line secured firmly with pegs.
 - Dry under shade.
 - Iron using a hot iron.
- iii)
 - Wash in hot soapy water using a soft piece of cloth/sponge/sisal fibres.
 - Rinse thoroughly in clean hot water.
 - Dry on a rack/clean flat surface upside down/dry with a non fluffy cloth/dish cloth/drip dry upside down.
 - Buff shine.
 - Store appropriately.

Practical experience in Home Science makes learning more meaningful. Concepts and ideas learnt are concretised therefore students do not forget them easily. Teachers should guide their learners when carrying out practicals. They should in addition lay a lot of emphasis on procedures and correct water temperatures to be used at every stage of the processes.

14.2.3 Section C

Question 25 (b & c)

A diagram of a school blouse is shown below. Study it then answer the questions that follow.



- (b) Discuss **three** desirable qualities of the tucks.
- (c) Explain **three** factors to consider when selecting fabric for the school blouse.

Question 25 was exclusively on Clothing and Textiles and it was the worst done of all the questions in Section C. In fact, questions on clothing and textiles have been poorly performed over the years.

Weaknesses

In part (b) of the question, the candidates gave irrelevant general points on tucks. Some candidates stated points without explaining them as required by the question. In part (c) of the question, it was evident that many candidates did not know how to select a fabric for the school blouse. They were unable to relate properties of fabrics to the school blouse and therefore ended up giving general answers.

Expected Responses

- b)
- The tucks are made on a straight grain for a good hang.
 - There is equal distance between one tuck and another which gives balance.
 - The stitching lines are straight for beauty and neatness.
 - Each group of tucks are pressed towards one direction for uniformity.
 - The tucks are pressed flat at the seam line to give a smooth finish.
 - The depth of each tuck is even through out for neatness and flatness.
- c)
- Easy to launder because it is washed frequently/save time /wash quickly.
 - Strong/durable material to last longer/to avoid buying all the time.
 - Colour fast so that it is easy to launder.
 - Absorbent for the comfort of the wearer

- Strong/durable to withstand harsh methods of washing /to withstand frequent washing.
- Crease resistant for easy care.
- Shrink resistant to avoid replacing them often
- Light in weight to dry faster
- Light in weight to give comfort.

Poor performance in the questions related to Clothing and Textiles is an indication that the candidates are not given sufficient practice in clothing construction. Teachers should emphasize on practicals especially when it comes to garment construction processes. When teaching the topic of fabrics suitable for making various articles like sports wear, undergarments, children's clothes etc. Teachers should relate these articles with the fabrics that are suitable for their construction.

14.3 PAPER 2 (441/2)

A pattern of an apron is provided. You are advised to study the sketches, instructions and the layout carefully before you begin the test.

Materials Provided

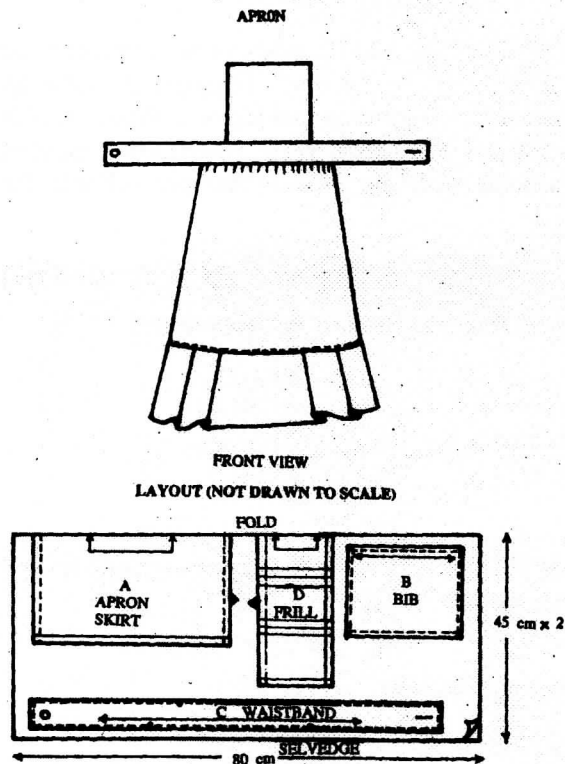
1. *Pattern pieces:*
 - A *Apron skirt*
 - B *Bib*
 - C *Waistband*
 - D *Frill*
2. *Plain light weight cotton fabric 80cm long by 90cm wide.*
3. *Sewing thread to match the fabric.*
4. *A button 1.2cm diameter.*
5. *One large envelope.*

THE TEST

Using the materials provided, cut out and make the apron to show the following:

- (a) *The preparation of the bib.*
- (b) *The attachment of the bib to the waistband.*
- (c) *The preparation of the pleats on the frill.*
- (d) *Attaching the frill onto the skirt using an overlaid seam.*
- (e) *Starting from the **right hand** edge, neaten 8 cm of the overlaid seam using loop stitches.*
- (f) *Machine hemming the **right hand** edge of the skirt.*
- (g) *Working of gathers on the skirt.*
- (h) *Machining the skirt onto the overlap of the waist band.*
- (i) *Holding the underlap onto the skirt using long and short tacking stitches. **Do not hem..***
- (j) *Working of the buttonhole.*
- (k) *Attaching of the button.*

At the end of the examination, firmly sew on your work, on a single fabric, a label bearing your name and index number. Remove the needle and pins from your work, then fold your work neatly and place it in the envelope provided. Do not put scraps of fabric in the envelope.



This is a practical paper where candidates were provided with a pattern to cut out and make an apron. The poor performance reflected the following weaknesses.

- 14.3.1 Many candidates failed to lay the pattern pieces correctly on the fabric in order to obtain the correct grain. The pieces they cut out were not on correct grain. Teachers should emphasize to their students the importance of correct grain in clothing construction.
- 14.3.2 Many candidates presented articles which had too many unnecessary stitches, gathering lines, loose threads and labels stitched on double fabric, especially on the bib. Teachers should keep reminding students to ensure that they remove temporary stitches after permanent stitches are done. They should tell the students to trim loose threads. Students should be shown practically the difference between single and double fabric when stitching on their names on articles.
- 14.3.3 Candidates displayed lack of knowledge on preparation of knife edge, trimming and snipping. Majority did not know how to make a double bib. Teachers should teach students how to make double bibs in aprons.
- 14.3.4 Poor management of buttons especially the preparation of shanks and neatening stitches at the back were evident. Teachers need to expose their students to a lot of practicals.

The poor performance in this practical paper is an indication that candidates may not have had sufficient practice during practicals. Teachers should strive to expose their students to practicals instead of tackling garment construction theoretically. Practical greatly boost candidates' performance.

14.4 PAPER 3 (441/3)

THE TEST

Your two cousins aged 6 ½ months and 3 years are visiting you for lunch.

Using the ingredients listed below, prepare, cook and present two suitable meals for the three of you.

Ingredients

Rice

Finger millet/sorghum flour

Minced meat/green grams

Milk

Green leafy vegetables

Onions

Fat/oil

Salt

Sugar

PLANNING SESSION - 30 minutes

Use separate sheets of paper for each task listed below and a carbon paper to make duplicate copies. Then proceed as follows:

- 1. Identify the dishes and write down their recipes.*
- 2. Write down your order of work.*
- 3. Make a list of the foodstuffs and equipment you will require.*

The performance was very good in this paper. However, the following were some of the weaknesses that were noted:

- 14.4.1 Candidates were not able to identify appropriate dishes.
- 14.4.2 Poor sequencing of activities by candidates was evident.
- 14.4.3 Many candidates ordered for too much foodstuff for three people.

14.5 ADVICE TO TEACHERS

- 14.5.1 Teachers should expose their students to emerging terminologies in the syllabus so that they are not caught unawares by them.
- 14.5.2 Students should be exposed to a lot of practicals since this will enable them concretise concepts and improve their competence when handling practical examinations.
- 14.5.3 Teachers should strive to cover every aspect in the syllabus since this will result in confident candidates.