

14.0 HOME SCIENCE (441)

The year 2008 KCSE Home Science examination tested mastery of knowledge and skills specified in the syllabus. This year's report analyses the performance of the candidates in the three papers paying special attention particularly to the poorly performed questions. The report further gives expected responses of those poorly performed questions and goes further to give advice to both teachers and candidates with the sole purpose of improving future performance in the subject. The individual papers examined in the year 2008 KCSE Homescience examination were as follows:

Paper 1 (441/1): This is a theory paper divided into three sections and it was worth 100 marks. The three sections were:

- **Section A:** Consisted of compulsory short answer questions worth 40 marks.
- **Section B:** Questions were compulsory and covered applied practices in Home Science. This was worth 20 marks.
- **Section C:** Consisted of three (3) essay questions each worth 20 marks of which candidates were expected to choose and answer any two (2) questions.

Paper 2 (441/2): This was a practical paper which tested skills in Clothing Construction and was worth 45 marks.

Paper 3 (441/3): This was also a practical paper which tested skills in Foods and Nutrition and was worth 25 marks.

For purposes of computing the results, the scores of paper 2 (441/2) and paper 3 (441/3) are added to form paper 2.

14.1 CANDIDATES' GENERAL PERFORMANCE

The table below shows the candidature and the overall performance in the KCSE Home Science examination in the last three years.

Table 19: Candidates' Overall Performance in Home Science in the years 2006, 2007 and 2008

Year	Paper	Candidature	Maximum Score	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
2007	1		100	51.69	12.15
	2		70	32.26	7.48
	Overall	11,384	170	83.94	18.00
2008	1		100	47.18	11.42
	2		70	35.0	8.95
	Overall	12,314	170	82.24	18.23

The following observations can be made from the table above:

- 14.1.1 The candidature increased from **11,384** candidates in the year 2007 to **12,314** candidates in year 2008, an increase of **930** candidates.
- 14.1.2 There was a slight drop in overall performance of the subject as noted in the mean **83.94** in the year 2007 as compared to **82.24** in the year 2008.

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)

Question 1

Mention **three** functions of water in the body.

The question expected candidates to mention the uses of water in the body.

Weaknesses

Some candidates gave responses on the general use of water.

Expected Responses

- Transportation of nutrients.
- Elimination of waste.
- Digestion.
- Controlling body temperature.
- Regulating fluidity of body fluids.
- Lubricating parts of the body.
- Dissolving foods.
- Prevents dehydration.
- Acts as a medium of body metabolism.
- Controls body PH.
- Acts as a solvent for various substances in the body.
- Provides minerals, for example:- zinc, copper etc.

Advice to Teachers

Teachers are advised to teach the topic on water thoroughly.

Question 3

What are effects of immersing a hot aluminium frying pan in water?

The candidates were expected to list the reaction of a hot aluminium frying pan in water.

Weaknesses

Some candidates did not understand the nature of aluminium.

Expected Responses

- Sudden contraction/warping/distorted shape.
- Shortened life span/develop hot spots/burns food/develops holes.

Advice to Teachers

Teachers are advised to teach more on materials used for making household equipment.

Question 4

Explain the **two** principles in bottling of fruits.

The candidates were expected to explain the principles in bottling of fruits.

Expected Responses

- Heating to kill micro organisms.
- Removing air to prevent development of bacteria.

Advice to Teachers

Teachers are advised to teach the topic on food preservation thoroughly.

Question 5

Write the following abbreviations in full.

- AIDS
- TBA

The candidates were expected to write out some given abbreviations in full.

Weaknesses

Inability of candidates to interpret and spell correctly the abbreviation AIDS while other candidates confused TBA with TB.

Expected Responses

- *AIDS*: Acquired Immune Deficiency Syndrome.
- *TBA*: Traditional Birth Attendant.

Advice to Teachers

Teachers are advised to teach on abbreviations used in the subject thoroughly.

Question 6

Mention **two** complications arising from obesity.

The candidates were expected to list complications that arise from obesity.

Weaknesses

Candidates misinterpreted the question and described obesity as a condition.

Expected Responses

- Hypertension/heart disease/heart attack.
- Stretch marks.
- Diabetes.
- Cellulitis.
- Kidney disease.
- Tiredness and shortness of breath.

Advice to Teachers

Teachers should advise candidates to read and understand questions before attempting to answer them.

Question 7

What are the determinants of safe parenthood?

Candidates were expected to state the determinants of safe parenthood.

Weaknesses

Candidates gave responses on how to raise good families.

Expected Responses

- Meeting nutritional needs of the mother.
- Social preparation of the expectant mother.
- Psychological preparation of the expectant mother.
- Voluntary counseling and testing of HIV of the parents.

Advice to Teachers

Teachers to advise students to read and understand questions well before attempting them.

Question 8

Identify **three** points to bear in mind when buying land for a family house.

Candidates were expected to state the points to bear in mind when buying land for a family house.

Weaknesses

Some candidates did not differentiate between “*buying land*” and “*buying a house*”.

Expected Responses

- Near good road network for ease of communication.
- Near a health facility.
- Near a school.
- Near a shopping centre.
- Well drained.
- Near clean water supply.
- Safe neighbourhood.
- Validity of ownership/legally acquired.
- Should be within family’s financial means/cost.

Advice to Teachers

Teachers are advised to guide students on how to respond to questions and write out answers fully.

Question 10

Give **three** advantages of using credit cards.

Candidates were required to state advantages of using credit cards.

Weaknesses

Some candidates confused “*credit cards*” with “*scratch cards*” and “*hire purchase*”.

Expected Responses

- In case of emergency a consumer can access goods and services.
- Can be used at any time of the day or night.
- Some credit cards give cash credit.
- It is relatively safer to carry than carrying cash money.
- It is not bulky.
- It saves time and energy.
- Convenient in use.

Advice to Teachers

Teachers are advised to try and be as practical as possible and expose the students to all types of cards.

Question 11

Name **four** fabrics that should not be wrung during laundering.

Students were required to name fabrics that should not be wrung.

Weaknesses

Candidates' responses displayed guess work. Some candidates gave responses related to fibres and not fabrics.

Expected Responses

- Acrylic.
- Wool.
- Silk.
- Polyester.

Advice to Teachers

Teachers are advised to define the difference between "*fibre*" and "*fabric*" and carry out more practicals in laundry.

Question 12

State **three** functions of a pressing cloth.

Candidates were expected to state the functions of a pressing cloth.

Weaknesses

Candidates did not know what a pressing cloth was.

Expected Responses

- Dampening articles.
- Protecting articles from scotching/burning/getting damaged.
- Preventing sheen on articles.
- Protecting articles from direct heat of the iron.
- Improve/enhance appearance of articles.

Advice to Teachers

Teachers are advised to use teaching aids and also carry out practicals to show use of pressing clothes.

Question 14

Identify **six** ways of finishing the frill of a nightdress.

Candidates were required to identify ways of finishing a frill.

Weaknesses

Some candidates did not know what a frill was. Others could not differentiate between *finishing edges*, *seams* and *control of fullness*.

Expected Responses

- Lacing.
- Using a bias binding.
- Using ric rac.
- Shell edging.
- Hemming/machine/edge stitching.
- Using zigzag stitches.
- Crocheting.
- Scalloping.
- False hem.
- Facing/ribbon/crossway strip.

Advice to Teachers

Teachers are advised to carry out practicals on frills so as to enable students understand this area better.

Question 16

Differentiate between **natural** and **man-made** fibres.

Candidates were required to differentiate between *natural* and *man-made fibres*.

Weaknesses

Candidates did not differentiate the fibres but instead talked of their properties.

Expected Responses

Natural fibres are from plants, animals and minerals while *man-made fibres* are manufactured from chemicals.

Advice to Teachers

Teachers are advised to stress on proper revision.

Question 17

You are preparing for the school's prize giving day.

- (a) Describe the method you would use to clean a varnished wooden table to be used for the occasion.

- (b) Give six rules you would observe when removing stains from table napkins to be used for the occasion.
- (c) Outline the procedure you would use when cleaning a toilet to be used by the guest of honour.

This question was on applied practices in Home Science. Candidates were required to:

- Describe methods of cleaning a varnished table.
- State the rules to observe during stain removal.
- Outline the procedure of cleaning a toilet.

Weaknesses

Candidates did not understand the word “*varnish*” in reference to the table. They gave the method of laundering table napkins and not stain removal while the procedure of cleaning a toilet was not properly outlined.

Expected Responses

- a)
- Dust the surface with a soft cloth/duster;
 - Wring out the soft cloth in warm soapy water/warm water with vinegar added to it and wipe/clean the surface carefully;
 - Rinse using soft cloth wrung in warm water;
 - Dry thoroughly with a dry soft cloth;
 - Rub with a little furniture cream polish/linseed oil/cold black tea;
 - Buff to shine.
- b)
- Remove stains from outside to the inside;
 - Use specific stain removal agents for stains that are clearly identified;
 - If the nature of the stain is not known try the least harmful method first;
 - Use correct procedure when removing stains;
 - When treating stains try several weak applications of the stain removal agent rather than one strong one;
 - Stain removal agents must be used in the recommended form;
 - When fabric is immersed in solution, it should not be allowed to stay longer than necessary;
 - Once the stain is removed the article should be washed immediately to remove traces of the agent.
 - Work on the stain before washing.
 - Identify the type of fabric before choosing stain removal agent.
- c)
- Flush the toilet/pour water;
 - Sprinkle some toilet cleaner/detergent and leave for some time;
 - Clean with a toilet brush/broom;
 - Flush the toilet again/pour water/rinse;
 - Clean the floor with a mop and disinfectant;
 - Ensure enough supply of toilet paper;
 - Ensure fresh air/leave window and door ajar for a while/use air freshner.

Advice to Teachers

Teachers are advised to do more practicals and advise candidates to revise properly.

Question 18 (a)

- (a) What do the following terms mean in meal planning and management?
- (i) Accompaniment.
 - (ii) Savoury foods .
 - (iii) Flavourings.
- (b) State **eight** points to bear in mind when setting a table.
- (c) (i) Define a food budget.
- (ii) Identify **seven** advantages of budgeting for food.

Candidates were expected to define some given terms used in meal planning and management.

Weaknesses

Most candidates did not confine meanings to meal management but gave general meanings of the words.

Expected Responses

- i) **Accompaniment:** Food items served alongside others although they may not form part of the main meal.
- ii) **Savoury Foods:** Foods that have a salty taste/not sweet/sour.
- iii) **Flavourings:** Substances which when added to foods enhance taste.

Advice to Teachers

Teachers to encourage thorough revision.

Question 20 (c)

Give **three** features of a well cut out crown of a sleeve.

Candidates were expected to know the features of a well cut out sleeve crown.

Weaknesses

Most candidates did not know what a sleeve crown was.

Expected Responses

- Its head has a slight rather shallow curve at the back.
- It is well rounded.
- It has a hollow curve at the front area.

Advice to Teachers

More practical work is required in clothing construction.

14.3 PAPER 2 (441/2)

This is a practical paper where candidates were provided with a pattern to cut out and make child's blouse.

A pattern of a girl's blouse is provided. You are advised to study the sketches, instructions and layout carefully before you begin the test.

Materials Provided

- 1 Pattern pieces for the blouse:
 - A – Blouse front
 - B – Blouse back
 - C – Collar
 - D – Pocket
- 2 Lightweight plain cotton fabric 50 cm long by 90 cm wide.
- 3 Sewing thread to match the fabric.
- 4 One large envelope

THE TEST

Using the materials provided, cut out and make the **LEFT HALF** of the blouse to show the following processes:

- (a) making of an open seam at the shoulder;
- (b) making of the side seam using a French seam;
- (c) neatening of the blouse front facing;
- (d) preparation of the Collar;
- (e) attachment of the Collar. Use hemming stitches at the back;
- (f) holding the facing on to the blouse using diagonal tacks. **Do not remove;**
- (g) preparation and attachment of the patch pocket;
- (h) management of the blouse hem:
 - (i) use even tacking to hold the hem. **Do not remove;**
 - (ii) use machine hemming.

At the end of the examination, remove all pins, firmly sew onto your work, on a single fabric, a label bearing your name and index number.

Fold your work carefully and place it in the envelope provided. Do not put scraps of material in the envelope.

14.3.1 Weaknesses

The performance of candidates in the paper reflected the following weaknesses.

- 14.3.1.1 Cutting out was poorly done and as a result most of the work presented had no straight grain.
- 14.3.1.2 Candidates displayed lack of knowledge on the management of an open seam at the shoulder line. Most of them were not neatened, not pressed open and were not evenly worked out.
- 14.3.1.3 Candidates displayed lack of knowledge on the handling of a collar. The following details were missed out completely: *knife edge, sharp corner, flashing, trimming, snipping* and *sandwiching*.

14.3.1.4 Candidates displayed lack of knowledge on hem management. Only *twenty (20)* candidates out of *twelve thousand (12,000)* candidates managed the hem well at the centre front (CF).

14.3.1.5 Candidates did not follow the instructions in the question paper and as a result they missed out on some marks, that is, the instructions were clear on not removing of some temporary stitches but the candidates removed them.

14.3.2 Advice to Teachers

14.3.2.1 Teachers should ensure that candidates use sharp scissors when cutting fabric and they should also buy well grained fabrics.

14.3.2.2 Teachers should encourage more practice on seam making and pay attention to details.

14.3.2.3 Teachers are advised to give more practicals on needlework processes.

14.3.2.4 Teachers are advised to stress on following of instructions in the question paper and not just drilling the candidates.