



14.0 HOME SCIENCE (441)

The year 2007 KCSE Home Science examination tested mastery of knowledge and skills specified in the syllabus. This was the second year Home Science was tested under the revised syllabus. This was examined in three papers. The individual papers were as follows:

Paper 1 (441/1): This is a theory paper divided into three sections and it was worth 100 marks unlike the previous year when it was worth 120 marks. This paper consisted of three sections, which are:

- **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 it was worth 45 marks.

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

For purposes of computing the results, the scores of paper 2 (441/2) and 3 (441/3) 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. It highlights the possible causes of their poor performance and gives the expected responses.

14.1 GENERAL CANDIDATES' PERFORMANCE

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

Table 17: Candidates Overall Performance in Home Science in the year 2007

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

The following observations can be made from the table above:

- 14.1.1 The candidature increased from **10,571** candidates in the year 2006 to **11,384** candidates in the year 2007, an increase of **813** candidates.
- 14.1.2 The overall performance in the subject improved slightly by 0.50 % from **48.83%** in the year 2006 to **49.38%** in the year 2007.

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

Question 2

Mention **two** methods of preserving fruits without using a refrigerator.

The question expected candidates to have mastered the topic of preservation of food.

Weaknesses

Many candidates did not understand the word "*preserving*".

Expected Responses

- Drying.
- Jam making.
- Canning.
- Pickling.
- Bottling.

Advice to Teachers

Teachers are advised to teach the topic on preservation of foods thoroughly.

Question 4

Identify **two** precautions to take when cleaning glass utensils.

Candidates were required to state the precautions to take when cleaning glass utensils.

Weaknesses

The candidates specifically answered the question on water glasses. They did not give the precautions but instead outlined the method of cleaning water glasses.

Expected Responses

- Do not knock against each other.
- Avoid extreme temperatures.
- Use only non-fluffy cloth for drying.
- Do not use harsh abrasives/sharp objects.
- Avoid heaping together/stacking.
- Do not mix with other dishes in the sink.
- Handle with care.

Advice to Teachers

Teachers are advised to clearly differentiate types of glassware in the market and to teach the precautions and care of utensils well.

Question 6

Suggest two reasons why chicken curry with fried potatoes is not a suitable meal for a person convalescing from typhoid.

Candidates were required to give reasons on the unsuitability of chicken curry and fried potatoes as a meal for a person convalescing from typhoid.

Weaknesses

Students did not identify the nutritive value of the food.

Expected Responses

- Too oily.
- Too spicy.
- Meal lacks vitamins which are crucial for a convalescent.
- Fried potato is crispy and not easy to digest.

Question 7

**A cake was cooked on the outside but uncooked in the inside.
Suggest possible causes.**

Candidates were expected to identify the causes of the fault of the cake that had been described in the question.

Weaknesses

Candidates scored poorly in this question, which is an indicator of lack of practical work during the teaching – learning process.

Expected Responses

- Too high temperatures used.
- Baking tin of too light weight material.
- Consistency too soft.
- Inadequate raising agent.

Advice to Teachers

Teachers are advised to carry out practicals and discuss different faults in cake making.

Question 8

Your five year old cousin has the following signs:

- (i) oedema
- (ii) protruding stomach
- (iii) scattered thin hair.

The nutritional disorder exhibited is

The question expected the candidates to identify the nutritional disorder exhibited by oedema, a protruding stomach and scattered thin hair.

Weaknesses

Candidates confused the symptoms of "*kwashiorkor*" with those of "*marasmus*".

Expected Responses

Kwashiorkor.

Advice to Teachers

Teachers are advised to stress on symptoms and signs of different nutritional disorders.

Question 15

State two disadvantages of maisonnettes.

Candidates were required to state the disadvantages of maisonnettes.

Weaknesses

Some candidates had not mastered the different house designs.

Expected Responses

- The stairs pose a danger to young children and the elderly.
- They are expensive to build.
- They do not provide enough privacy for the owners.
- Household pests can crawl easily from one house to the next.
- There is danger of fire spreading from neighbouring houses.
- Noise from the neighbouring houses can be disturbing.

Advice to Teachers

Teachers are advised to try and practically show candidates the different house designs.

Question 17

List four fabrics which cannot be disinfected by boiling.

The question expected candidates to have mastered the behaviour of fibres and fabrics in use and care.

Weaknesses

Some candidates tended to guess the fabrics.

Expected Responses

- Acetate rayon.
- Viscose rayon.
- Acrylics/Acrilonitrite/Acrilon/Orlon/Courtelle.
- Polyesters/Terylene/Decron/Trevira/Crimplene.
- Polyamide/Nylon.
- Wool.
- Silk.

Advice to Teachers

Teachers are advised to teach the topic on the textile fibres thoroughly.

Question 23

The size of a French seam is determined by:

- (a)
- (b)

The question expected the candidates to state the factors that determine the size of a French seam.

Weaknesses

The candidates' responses indicated that they did not know that a French seam has different sizes.

Expected Responses

- Weight of fabric.
- Type of garment.
- Position where it is to be used.
- Degree of fraying.
- Type of fabric (weight/degree of fraying/type of construction).

Advice to Teachers

Teachers are advised to teach the topic on seams exhaustively.

14.2.2 Section B

Question 25

You are planning to go for a picnic.

- (a) Giving reasons, outline the procedure you would use to thoroughly clean a synthetic bag without a base board.
- (b) Outline the steps to follow when laundering the woollen sweater you will wear.

This question was on applied practices in Home Management. Candidates were expected to read and understand the procedure of cleaning a bag and of laundering a sweater.

Weaknesses

Candidates' responses indicated absence of practicals in Home Management, which seemed to have been replaced with cramming. The procedures were mixed up and in part (a) of the question; some candidates applied the rules of taking care of synthetic fabrics.

Expected Responses

- a)
 - Shake the bag to remove loose dirt.
 - Scrub to remove fixed dirt with soft brush/sisal fibres to avoid spoiling the bag in warm, soapy water to remove dirt.
 - Clean inside and outside to ensure both sides are clean.
 - Rinse in warm water to remove soap and dirt.
 - Rinse finally in cold water to freshen it.
 - Dry upside down to remove excess water.
 - Dry under a shade to avoid fading.
- b)
 - Take measurements and record/draw the outline.
 - Wash in warm soapy water using kneading and squeezing method without lifting from the basin.
 - Rinse in warm water.
 - Final rinse in cold water.
 - Squeeze out the excess water.
 - Roll the sweater in a clean towel.
 - Take measurements and re-shape.
 - Dry flat under a shade on a clean surface.
 - Press using a warm iron avoiding the ribbing.
 - Air.
 - Fold appropriately.

14.2.3 Section C

Question 28(d)

Explain five desirable qualities of an ironing board.

Candidates were expected to have mastered knowledge on ironing surfaces.

Weaknesses

Candidates dwelt on other ironing surfaces and not the ironing board as required by the question.

Advice to Teachers

Teachers are advised to practically show the students the ironing board. Students should also be taught the difference between construction and finishing of garments.

14.3 PAPER 2 (441/2)

A pattern of a child's dress is provided. You are advised to study the sketches, the question paper and the layout carefully before you begin the test.

MATERIAL PROVIDED

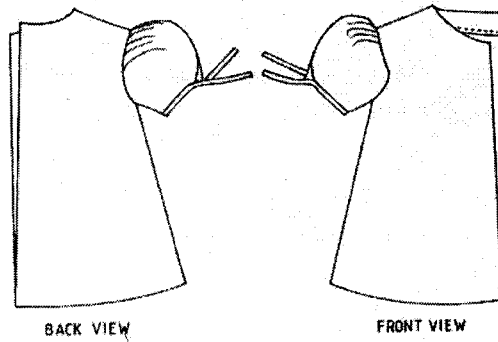
1. Pattern pieces
 - A. Dress front
 - B. Dress back
 - C. Sleeve
 - D. Sleeve binding and ties
 - E. Sleeve opening facing
 - F. Front neck facing
 - G. Back neck facing.
2. Plain light weight cotton fabric 70 cm long by 90 cm wide.
3. Sewing thread to match fabric.
4. One large envelope.

THE TEST

Using the materials provided, cut out and make up the RIGHT HALF of the child's dress to show the following:

- (a) The making of a French seam at the shoulder.
- (b) The joining of the side with a neatened open seam.
- (c) The preparation of a faced sleeve opening.
- (d) The joining of the underarm seam using a neatened open seam.
- (e) The binding of the lower edge of the sleeve and preparation of the tie ends.
- (f) The preparation and attachment of the sleeve.
N.B: Do not trim or neaten the armhole seam allowance.
- (g) The preparation and attachment of neck facings.

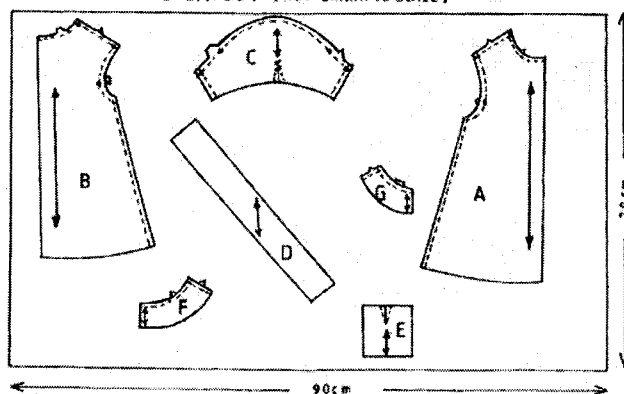
At the end of the examination, firmly sew on to your work, on a single fabric a label bearing your name and index number. Remove the needles and pins from your work, then fold your work carefully and place it in the envelope provided. **Do not** put scraps of fabric in the envelope.



BACK VIEW

FRONT VIEW

THE LAYOUT (NOT DRAWN TO SCALE)



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

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

- Many candidates presented their work with too many unnecessary stitches, loose threads and labels poorly stitched. Teachers should keep reminding students to ensure they remove all temporary stitches after permanent stitching has been done. They should also ensure that the students know how to sew labels on single fabric.
- Candidates displayed a lack of knowledge on the working of a french and an open seam. Most of them did not understand the procedure and as a result trimming was poorly done. Open seams were poorly neatened and there was no knife edge on the French seam. Teachers should teach students the needlework processes practically.
- There was poor management of the faced slit opening. From the performance of candidates it was clear that most candidates did not know what this opening was. Teachers should teach the topic on openings thoroughly and practically.
- Majority of the candidates handed in incomplete work which is evidence of low speed which is a clear manifestation of lack of practicals.

The poor performance in this practical paper is an indication that candidates may not have had sufficient practicals. Teachers should lay more emphasis on the practicals as they boost candidates' performance.

Advice to Teachers

Teachers should ensure proper syllabus coverage before students sit for the examination. Practical and theory should be handled hand-in-hand for complimentary purposes especially in Clothing Construction.

14.4 PAPER 3 (441/3)

THE TEST

You are hosting three officials of your Home Science Club. Using the ingredients listed below, prepare, cook and present a beverage and two tea items for yourselves.

Ingredients

Margarine
Tea leaves
Bread
Plain wheat flour
Eggs
Sugar
Oil
Salt
Tomatoes
Milk

PLANNING SESSION: 30 minutes.

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

1. *Identify the beverage and the tea items, then 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 in this paper was very good. However, the following weaknesses were noted.

- Some candidates were still not able to identify the appropriate dishes.
- Many candidates also ordered for too much foodstuff for three people.
- There was poor sequencing of activities.
- Some candidates also ordered for foods outside the ingredients list.

Advice to Teachers

Teachers are advised to teach on planning and sequencing of activities for this practical. They should remind the candidates to stick to the sequence laid down as it helps them organize themselves. They should also expose the candidates to a lot of practicals to improve their competence when handling examinations.

23.12 HOME SCIENCE (441)

23.12.1 Home Science Paper 1 (441/1)



Name Index No...../.....

441/1
HOME SCIENCE
Paper 1
(Theory)
Oct, /Nov. 2007
2½ hours

Candidate's Signature

Date

THE KENYA NATIONAL EXAMINATIONS COUNCIL
Kenya Certificate of Secondary Education
HOME SCIENCE
Paper 1
(Theory)
2½ hours

INSTRUCTIONS TO CANDIDATES

*Write your name and index number in the spaces provided above.
Sign and write the date of examination in the spaces provided above.
This paper consists of three sections: A, B and C.
Answer all the questions in sections A and B and any two questions from section C.
Answers to ALL questions must be written in this booklet.*

For Examiner's use only

Section	Questions	Maximum Score	Candidate's Score
A	1 - 24	40	
B	25	20	
C		20	
		20	
Total Score			

This paper consists of 11 printed pages
Candidates should check the question paper to ascertain that all the pages are printed as indicated and no questions are missing.

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Turn over

- 1 Give two ways of making water safe for drinking. (2 marks)
- 2 Mention two methods of preserving fruits without using a refrigerator. (1 mark)
- 3 Name the biological agent used in bread making. (1 mark)
- 4 Identify two precautions to take when cleaning glass utensils. (2 marks)
- 5 State two advantages of convenience foods. (2 marks)
- 6 Suggest two reasons why chicken curry with fried potatoes is not a suitable meal for a person convalescing from typhoid. (2 marks)
- 7 A cake was cooked on the outside but uncooked in the inside. Suggest possible causes. (2 marks)
- 8 Your five year old cousin has the following signs:
 - (i) oedema
 - (ii) protruding stomach
 - (iii) scattered thin hair.

The nutritional disorder exhibited is (1 mark)
- 9 What causes fainting? (1 mark)
- 10 Haemorrhoids are (1 mark)
- 11 Apart from pregnancy, identify four reasons for missing menstruation. (2 marks)
- 12 State points to remember while cleaning a sickroom. (2 marks)
- 13 Describe the following terms as used in child development:
 - (a) physical play (1 mark)
 - (b) imaginative play. (1 mark)
- 14 Define ventilation. (1 mark)
- 15 State two disadvantages of maisonnettes. (2 marks)
- 16 Identify two factors that influence the choice of colour scheme of a room. (2 marks)
- 17 List four fabrics which cannot be disinfected by boiling. (2 marks)
- 18 Give two reasons for rinsing clothes. (2 marks)
- 19 Why is impulse buying not encouraged? (1 mark)
- 20 Mention two uses of a thimble. (2 marks)
- 21 Identify two permanent machine stitches. (1 mark)
- 22 Give two methods used for transferring pattern markings on to a fabric. (2 marks)
- 23 The size of a French seam is determined by: (2 marks)
- 24 List two fastenings suitable for a toddler's garment. (2 marks)

SECTION B (20 marks)

COMPULSORY

Answer this question in the spaces provided at the end of section C.

- 25 You are planning to go for a picnic.
 - (a) Giving reasons, outline the procedure you would use to thoroughly clean a synthetic bag without a base board. (8 marks)

- (b) Outline the steps to follow when laundering the woollen sweater you will wear. (12 marks)

SECTION C (40 marks)

Answer any two questions from this section in the spaces provided at the end of the section.

- 26 (a) Mention **three** uses of maize in the home. (3 marks)
- (b) Identify **four** major nutrients found in maize. (4 marks)
- (c) (i) Describe **four** changes that take place when boiling dry maize. (4 marks)
- (ii) Suggest **three** ways of shortening the cooking time of dry maize. (3 marks)
- (d) Explain **three** considerations to make when selecting a storage facility for dry maize. (6 marks)
- 27 (a) Outline **four** preparations to make for the baby's arrival. (4 marks)
- (b) Describe **two** ways of sterilizing a baby's feeding equipment. (2 marks)
- (c) Explain **two** benefits of attending post-natal clinic. (4 marks)
- (d) (i) Give the systematic order of placing bedding items when preparing a baby's cot. (7 marks)
- (ii) State **one** function in each case of any **three** of the bedding items mentioned in d (i) above. (3 marks)
- 28 (a) Explain **four** properties of cotton that make it suitable for pyjamas. (8 marks)
- (b) Suggest **four** features that can be used to finish pyjamas decoratively. (4 marks)
- (c) Give **three** reasons for ironing pyjamas. (3 marks)
- (d) Explain **five** desirable qualities of an ironing board. (5 marks)

23.12.2 Home Science Paper 2 (441/2)

441/2
HOME SCIENCE (CLOTHING CONSTRUCTION)
Paper 2
(PRACTICAL)
Oct./Nov. 2007
2¹/₂ hours

THE KENYA NATIONAL EXAMINATIONS COUNCIL
Kenya Certificate of Secondary Education
HOME SCIENCE (CLOTHING CONSTRUCTION)
Paper 2
(PRACTICAL)
2¹/₂ hours

This paper consists of 3 printed pages

Candidates should check the question paper to ascertain that both pages are printed as indicated and no questions are missing.

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Turn over

A pattern of a child's dress is provided. You are advised to study the sketches, the question paper and the layout carefully before you begin the test.

MATERIAL PROVIDED

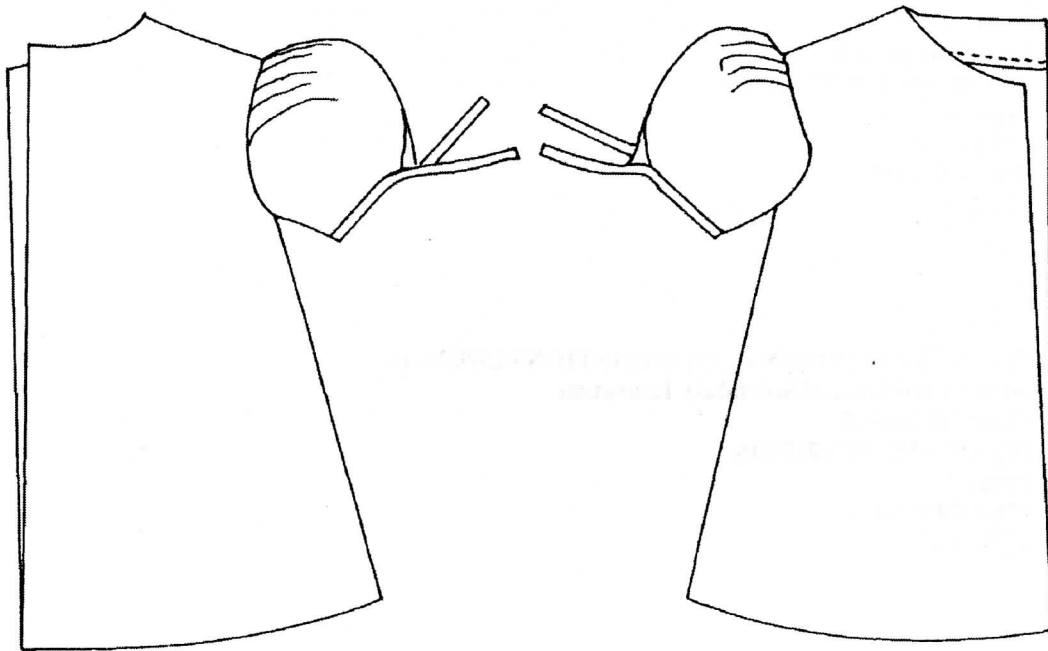
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2. Plain light weight cotton fabric 70 cm long by 90 cm wide.
3. Sewing thread to match fabric.
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THE TEST

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- (d) The joining of the underarm seam using a neatened open seam.
- (e) The binding of the lower edge of the sleeve and preparation of the tie ends.
- (f) The preparation and attachment of the sleeve.
N.B: Do not trim or neaten the armhole seam allowance.
- (g) The preparation and attachment of neck facings.

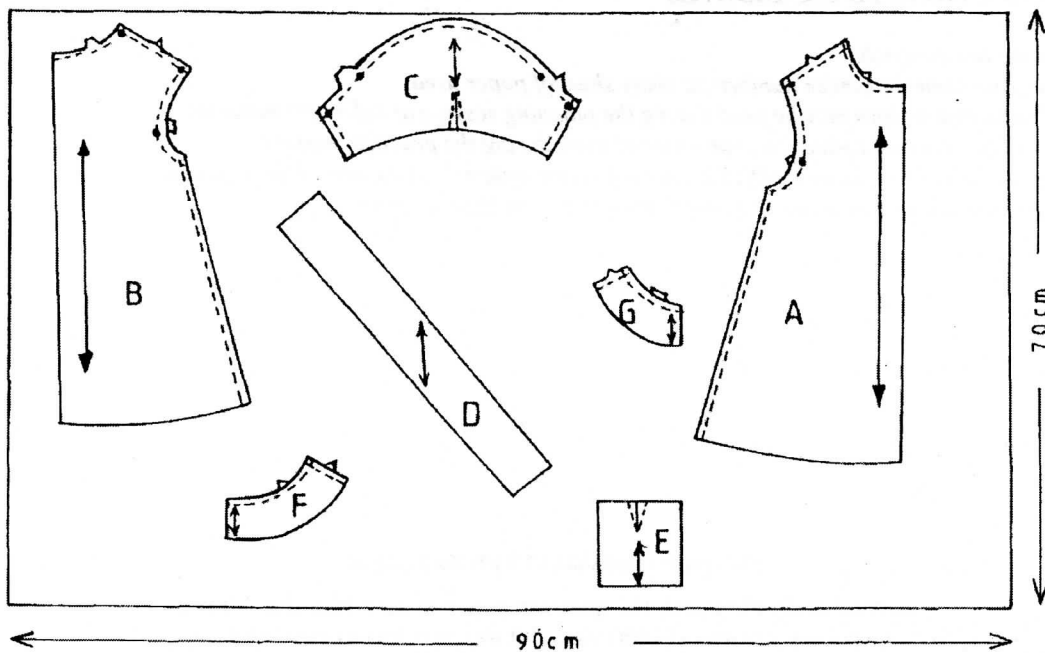
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BACK VIEW

FRONT VIEW

THE LAYOUT (NOT DRAWN TO SCALE)



23.12.3 Home Science Paper 3 (441/3)

**441/3
HOME SCIENCE
FOODS AND NUTRITION
Paper 3
(PRACTICAL)
Oct./Nov. 2007
1 $\frac{3}{4}$ hours**

**THE KENYA NATIONAL EXAMINATIONS COUNCIL
Kenya Certificate of Secondary Education
HOME SCIENCE
FOODS AND NUTRITION
Paper 3
(PRACTICAL)
1 $\frac{3}{4}$ hours**

**PLANNING SESSION: 30 minutes
PRACTICAL TEST SESSION: 1 $\frac{3}{4}$ hours**

INSTRUCTIONS TO CANDIDATES

Read the test carefully.

Write your name and index number on every sheet of paper used.

Textbooks and recipes may be used during the planning session as reference materials.

You will be expected to keep to your order of work during the practical session.

*You are allowed to take away **ONLY** your reference materials at the end of the planning session.*

You are not allowed to bring additional notes to the practical session.

This paper consists of 2 printed pages

Candidates should check the question paper to ascertain that all the pages are printed as indicated and no questions are missing.

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Turn over

THE TEST

You are hosting three officials of your Home Science Club. Using the ingredients listed below, prepare, cook and present a beverage and two tea items for yourselves.

Ingredients

Margarine
Tea leaves
Bread
Plain wheat flour
Eggs
Sugar
Oil
Salt
Tomatoes
Milk

PLANNING SESSION: 30 minutes.

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

1. *Identify the beverage and the tea items, then write down their recipes.*
2. *Write down your order of work.*
3. *Make a list of the foodstuffs and equipment you will require.*

24.12 HOME SCIENCE

24.12.1 Home Science Paper 1 (441/1)



MANYAM FRANCHISE
Discover! Learn! Apply

1.
 - Chlorination/water guard.
 - Boiling.
 - Filtration/ sieving.
 - Sedimentation.
 - Decantation.

(Any 2 x 1 = 2 marks)

2.
 - Drying.
 - Jam making/sugar/honey.
 - Canning.
 - Pickling/ vinegar.
 - Bottling.

(Any 2 x ½ = 1 mark)

3. Biological agent used in bread making is yeast.

(1 mark)

4.
 - Avoid extreme temperatures.
 - Do not knock against each other.
 - Handle with care.
 - Do not use harsh abrasives/sharp objects.
 - Avoid heaping together/stacking.
 - Do not mix with other dishes in wash area.

(Any 2 x 1 = 2 marks)

5.
 - Save time.
 - Are available throughout the year.
 - Can be used when there is unexpected emergency visitors.
 - They are enriched in colour, nutrients and flavour.
 - Readily available throughout the year.
 - Are easy to use.
 - Save energy/labour saving.
 - No wastage incurred in shelling, peeling, removing soaking etc.
 - Ideal for unskilled persons trying out new recipes.

(Any 2 x 1 = 2 mark)

6.
 - Crispy and not easy to digest (fried potatoes).
 - Too oily.
 - Too spicy/causes irritation of stomach lining.
 - Colour not appetizing.
 - Meal lacks vitamins which are crucial for convalescent/protective food.

(Any 2 x 1 = 2 marks)

7.
 - Too high temperatures used.
 - Baking tin of too light weight.
 - Consistency too soft.
 - Inadequate raising agent.

(Any 4 x 1 = 2 marks)

8. Kwashiorkor.

(1 mark)

9. Fainting occurs because of a temporary inadequate supply of oxygen/ air/ blood to the brain.

(1 mark)

10. Haemorrhoids are enlarged blood vessels/ piles at the anal region. **(1 mark)**
- 11.
- Illness.
 - Excessive exercises.
 - Malnutrition.
 - Use of contraceptives.
 - Onset of menopause/ after delivery abortion/ miscarriage.
 - Excitement.
 - Trauma/ shock/ bad news.
 - Travelling long distances/climatic change/stress/use of hard drugs. **(4 x 1/2 = 2 marks)**
- 12.
- Avoid raising dust / use damp dusting.
 - Use disinfectant.
 - Avoid excessive noise.
 - Ventilate the room.
 - Wear protective gloves, overalls, masks etc. **(Any 2 x 1 = 2 marks)**
- 13.
- (a) **Physical play:** Body movement or actions performed by a child. **(1 mark)**
- (b) **Imaginative play:** Involves child's ability to form mental pictures or images. **(1 mark)**
14. Ventilation is the free movement of air in and out of a room/ fresh air and stale/ bad air/ space left in a building that allows free flow of air in and out. **(Any 2 x 1 = 2 marks)**
- 15.
- They do not provide enough privacy for the owners.
 - It is not easy to demolish or extend at one's will.
 - Household pests crawl easily from one house to the next.
 - There is danger of fire spreading from neighbouring houses.
 - Noise from the neighbouring houses can be disturbing.
 - They are expensive to build.
 - Dangerous for the old and children because of stairs. **(Any 2 x 1 = 2 marks)**
- 16.
- The effect desired.
 - Use of the room.
 - Existing décor.
 - User's personal preference.
 - Size of room. **(Any 2 x 1 = 2 marks)**
- 17.
- Viscose rayon/Acetate rayon.
 - Acrylic/ Acrilonitrite/ orlod rayon.
 - Polyesters/ terylene/ daeron/ crimplene/ trivera.
 - Polyamide/nylon.
 - Silk.
 - Wool. **(Any 4 x 1/2 = 2 marks)**
- 18.
- For thorough removal of dirt.
 - For removal of soap.

- To restore the condition of the fabric.
 - To refresh fabric/ remove bad odour. **(2 x 1 = 2 marks)**
- 19.
- Encourages overspending.
 - Encourages buying items that may not be needed/ useful/ prioritized/ interfere with budget.
 - Gives satisfaction that is short-lived. **(Any 1 x 1 = 1 mark)**
- 20.
- Pushing a needle through the fabric.
 - Protecting the user's finger. **(2 x 1 = 2 marks)**
- 21.
- Straight stitches.
 - Zig-zag stitches.
 - Overlock stitches
 - Buttonhole stitches
 - Embroidery stitches/decorative stitches. **(Any 2 x 1/2 = 1 mark)**
- 22.
- Dressmaker's carbon paper and tracing wheel/ biro/ pencil.
 - Tailor's chalk.
 - Thread markings.
 - Tailor's pencil.
 - Tailor's tacks. **(Any 2 x 1 = 2 marks)**
- 23.
- Weight of fabric.
 - Type of garment/type of fabric.
 - Position where it is to be used.
 - Degree of fraying/type of construction. **(2 x 1 = 2 marks)**
- 24.
- Buttons with buttonholes/ loops.
 - Ties/ tapes/ ribbons.
 - Velcro.
 - Eyelet holes with cords.
 - Plastic coated press studs.
 - Plastic zips.
 - Buttons.
 - Zips.
 - Press studs. **(Any 2 x 1 = 2 marks)**
25. (a)
- Shake/ dust the bag to remove loose dirt.
 - Scrub to remove fixed dirt with a soft brush/ sisal fibres in warm soapy water to remove fixed dirt.
 - Scrub a small portion at a time using cold soapy water.
 - Clean inside and outside to ensure both sides are clean.
 - Rinse in warm water to remove soap and dirt.
 - Rinse finally in cold water to freshen it.
 - Dry upside down to remove excess water.
 - Dry under a shade to avoid it fading. **(8 marks)**
- (b)
- Take measurements and record /draw the outline.

- Wash in warm soapy water using kneading and squeezing method without lifting from basin.
- Rinse in warm soapy water.
- Final rinse in warm water.
- Squeeze out the excess water.
- Roll the sweater in a clean towel.
- Take measurements and reshape.
- Dry flat under shade on a clean surface.
- Press using a warm iron avoiding the ribbing.
- Air.
- Fold appropriately.

(12 marks)

26. (a)

- To make flour for ugali/ porridge/ alcohol.
- To make laundry starch.
- As a snack.
- As an ingredient in meals (githeri etc).
- To feed animals.
- To make oil.
- For economic gain (sell).

(Any 3 x 1 = 3 marks)

(b)

- Carbohydrates/ starch.
- Oils.
- Roughage.
- Vitamin B Complex.
- Vitamin A.

(Any 4 x 1 = 4 marks)

(c) (i)

- The size increases/expand/swells.
- Bursting of starch granules/cover breaking.
- Colour changes.
- The texture changes to become softer.
- The flavour changes/becomes sweeter.

(Any 4 x 1 = 4 marks)

(ii)

- Soaking before cooking.
- Using a pressure cooker.
- Covering with a fitting lid/cover.
- Use of bicarbonate soda/ traditional ash.
- Removal of husks.
- Breaking into smaller pieces.

(3 x 1 = 3 marks)

(d)

- Well ventilated to allow free movement of air.
- Clean to avoid contamination.
- Lockable to avoid losses/theft.
- Properly sealed to avoid pests, rodents and moisture.
- Slightly raised to avoid moisture.
- Well dusted with pesticides to avoid attack by pests.
- Dry to avoid making maize damp.

(Any 3 x 2 = 6 marks)

27. (a)

- Psychologically prepare family members to ensure acceptance of the baby.
- Prepare room.
- Purchasing all requirements for baby and mother.
- Ensure for availability of finances/resources.
- Making decision on type/ place of confinement.
- Making adequate arrangement for physical assistance/ help.

(Any 4 x 1 = 4 marks)

(b)

- Immersing in a sterilizing solution in a plastic container for a minimum of one hour.
- Placing in a saucepan with cold water and bringing it to boil for at least 10 minutes.
- Using a baby sterilizer kit and placing it in the microwave oven for some time.

(Any 2 x 1 = 2 marks)

(c)

- The mother is thoroughly examined to ensure that the uterus is back to normal and that she is healing well.
- The mother's breasts are examined to make sure that she will be able to breast feed.
- The baby is examined to ensure progressive growth/proper feeding habits/good hygiene.
- Immunizations are administered to protect the baby against diseases.
- The mother is advised on good nutrition, child care, hygiene and family planning for healthy living.

(Any 2 x 2 = 4 marks)

(d)

(i)

	A	B
1.	Mattress	Mattress with plastic cover
2.	Mackintosh / plastic sheet	Under blanket
3.	Under blanket	Bottom sheet
4.	Bottom sheet	Top sheet
5.	Top sheet	Top blanket
6.	Top blanket	Cot cover
7.	Cot cover	

(7 x 1 = 7 marks)

(ii)

1. **Mattress:** to provide comfort for the baby.
2. **Mackintosh/ plastic sheets:** protect the mattress against wetness.
3. **Under blanket:** for warmth.
4. **Bottom sheet::**
 - For comfort.
 - Protect under blanket from ageing and dirt.
 - Prevents bed from slipping.
 - Protects baby from direct contact with blanket.
 - For warmth.
5. **Top sheet:**
 - For comfort.
 - Protects top blanket from ageing and dirt.
 - Protects baby from direct contact with blanket.
 - For warmth.
6. **Top blanket:**
 - Provides warmth.
 - For comfort.
7. **Cot covers:**
 - For beauty.
 - Protects beddings against dirt.

(3 x 1 = 3 marks)

28.

(a)

- Cotton is soft/ comfortable.
- Cotton is absorbent therefore it absorbs sweat and body fluids.
- Cotton comes in a variety of weights therefore one can choose according to their needs.
- Cotton is strong therefore can withstand frequent washing.
- Cotton withstands high temperatures therefore can be sterilized.

- Cotton is resistant to alkalis therefore can be safely disinfected/stains can be removed easily.
 - Cotton is strong and therefore can withstand a variety of laundry agents.
 - Cotton is a good conductor of heat therefore comfortable to wear (cool when hot warm when cold). *(Any 4 x 2 = 8 marks)*
- (b)
- Shell edging: rick rack.
 - Embroidering: contrasting colours of threads.
 - Using ribbons: corded piped seams.
 - Using motifs/ appliqués: conspicuous facings/false hems.
 - Crocheting: contrasting pocket colours/collars etc.
 - Frills.
 - Laces. *(Any 4 x 1 = 4 marks)*
- (c)
- To remove creases.
 - To sterilize/kill germs.
 - To ensure it is completely dry.
 - To improve appearance/ make attractive.
 - To enhance comfort.
 - To prevent pyjamas from getting dirty quickly. *(Any 3 x 1 = 3 marks)*
- (d)
- Stable/ strong to avoid wobbling/falling/causing accidents while ironing.
 - Adjustable height to suit the user.
 - Suitable iron rest/heat proof mat to avoid scorching surfaces.
 - Smoothly padded for effective ironing.
 - Fabric used should be heat resistant to withstand high temperatures.
 - Well padded surface to provide a suitable base.
 - Colour fast to avoid soiling the work.
 - Screws firmly fixed for stability quality to avoid accidents. *(Any 5 x 1 = 5 marks)*

24.12.2 Home Science Paper 2 (441/2)

- | | SCORE |
|---|-------------------|
| 1. Presentation | |
| a) Work well pressed and well folded. | <i>(2 marks)</i> |
| b) Label firmly stitched on single fabric. | <i>(2 marks)</i> |
| c) Pins, tacking threads and unnecessary threads removed. | <i>(1½ marks)</i> |
| d) Made up for the right half. | <i>(1 mark)</i> |
| 2. Cutting Out | |
| a) All 7 pieces cut out. | <i>(3½ marks)</i> |
| b) Smooth cutting of the CF and cut on straight grain to within 3 mm. | <i>(2½ marks)</i> |
| c) Smooth cutting of the CB and cut on straight grain to within 3 mm. | <i>(2½ marks)</i> |
| d) Smooth cutting of the dress lower edge front and back. | <i>(3 marks)</i> |
| e) Front facing smoothly cut at CF and cut on straight grain. | <i>(1½ marks)</i> |
| f) Back facing smoothly cut at CB and cut on straight grain | <i>(1½ marks)</i> |
| g) Sleeve binding cut on bias. | <i>(1 mark)</i> |
| 3. Shoulder Seam – French seam | |
| If not French seam award zero from (a-h). | |
| (a) Seam well trimmed, no threads on the R.S. | <i>(1 mark)</i> |
| (b) Straight stitching. | <i>(1 mark)</i> |
| (c) Seam well knife-edged. | <i>(1 mark)</i> |
| (d) Evenness of seam. | <i>(1 mark)</i> |
| (e) Correct size (6 mm) to within 2 mm (4 – 8 mm). | <i>(1 mark)</i> |

- | | SCORE |
|---|-------------------|
| (f) Seam pressed towards the back at armhole and at neck line. | (1 mark) |
| (g) Flatness of seam at armhole R.S. and W.S. | (1 mark) |
| (h) Flatness of seam at neckline R.S. and W. S. | (1 mark) |
| 4. Side Seam – Open Seam | |
| If not an open seam award zero from (a-e). | |
| (a) Seam joined with straight stitching. | (1 mark) |
| (b) Well neatened raw edges. | (4 marks) |
| (c) Evenness of seam allowance. | (1 mark) |
| (d) Correct size of each seam allowance (1 cm) to within 2 mm (0.8 – 1.2 cm). | (1 mark) |
| (e) Seam pressed open and flat at armhole. | (2 marks) |
| 5. Underarm Seam – Open Seam | |
| If not an open seam award zero from (a-f). | |
| (a) Seam joined with straight stitching. | (1 mark) |
| (b) Well neatened raw edges. | (1 mark) |
| (c) Evenness of seam allowances. | (1 mark) |
| (d) Correct size (1 cm) to within 2 mm (0.8 – 1.2 cm). | (1 mark) |
| (e) Seam pressed open and flat at armhole. | (2 marks) |
| (f) Seam pressed open and flat at sleeve binding. | (2 marks) |
| 6. Faced-Sleeve Opening | |
| If not a faced opening, award zero from (a - j). | |
| (a) Facing attached with straight stitching and well knife-edged. | (2 marks) |
| (b) No pleats at the base of the opening. | (1 mark) |
| (c) Facing well neatened along the free edge. | (3 marks) |
| (d) Correct size of facing at the sleeve base (4.5 cm) to within 1 cm (3.5 - 5.5 cm). | (2 marks) |
| (e) Correct length of facing, (exclude binding) (9 cm) to within 5 mm (8.5 - 9.5 cm). | (1 mark) |
| (f) Correct position of opening. | (1 mark) |
| (g) Lower edge of facing concealed in the binding. | (1 mark) |
| (h) Equal length of both sides of the faced opening. | (1 mark) |
| (i) Correct depth of opening (5 cm) to within 5 mm (4.5 cm –5.5 cm). | (1 mark) |
| (j) Facing secured to sleeve at the upper corners. | (1 mark) |
| 7. Sleeve Binding and Ties | |
| (a) Binding attached with straight stitching. | (1 mark) |
| (b) Quality of stitches at the sleeve (accept hemming and machine stitches). | (1 mark) |
| (c) Raw edges well tucked under. | (1½ marks) |
| (d) Evenness of binding (R.S.). | (2 marks) |
| (e) No gathers formed on sleeve where binding is attached. | (1 mark) |
| (f) Equal length of both ties. | (1 mark) |
| (g) Sharp points at the end of ties. | (2 marks) |
| (h) Flatness of binding. | (1 mark) |
| 8. Sleeve | |
| (a) Good hang. | (1 mark) |
| (b) Gathers well distributed at the crown. | (2½ marks) |
| (c) Armhole seam made with straight stitching. | (1 mark) |
| (d) Notches matched at the armhole seam. | (1 mark) |
| (e) Side seam and underarm seam matching to within 2 mm. | (1 mark) |

	SCORE
9. Neck Facing	
(a) Back and front facing joined with straight stitching, seam trimmed, pressed open and un neatened.	(2 marks)
(b) Facing attached to neckline with a smooth curve.	(1 mark)
(c) Seam trimmed and snipped.	(2 marks)
(d) Facing understitched.	(1 mark)
(e) Facing seam and shoulder seam matching to within 2 mm at Neckline.	(1 mark)
(f) Free edge of facing well neatened, close to the edge and held at the shoulder seam.	(3 marks)
(g) CF of dress and CF of facing matching to within 2 mm.	(1 mark)
(h) CB of dress and CB of facing matching to within 2 mm.	(1 mark)