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# KENYA NATIONAL EXAMINATION COUNCIL

## KCSE 2007

### HOME SCIENCE PAPER 1 MARKING SCHEME

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# 1 Home Science Paper 1

- 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)  
(1 mark)
3. Biological agent used in bread making is yeas
- 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 are:
- (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. ( $4 \times \frac{1}{2} = 2$  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/ Acrilonitrile/ orlon rayon.
  - Polyesters/ terylene/ daeron/ crimplene/ trivera.
  - Polyamide/nylon.
  - Silk.
  - Wool.
- (Any 4 x  $\frac{1}{2}$  = 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/ appliques: 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)*