

# Marking Scheme KCSE 2016

## HOME SCIENCE

### PAPER 1

**No.1.Suggest four uses of carrots in cookery. (2 marks)**

- ❖ *In garnishing when used to add colour, decorate or to improve appearance*
- ❖ *In vegetable salad when used as an accompaniment*
- ❖ *To enhance colour in food when cooked with other food*
- ❖ *To make soups as a starter course e.g. carrot soup*
- ❖ *To enhance the nutritive value of the food*
- ❖ *As an appetizer when eaten raw at the beginning of a meal*
- ❖ *To add flavour when cooked with other foods*
- ❖ *To make nutritional drink i.e. carrot drink.*
- ❖ *To exercise the teeth and jaw when eaten raw*
- ❖ *To clean food particles after a meal especially in packed meals*

**No.2.Differentiate between macro and micronutrients. (2 marks)**

*Macro nutrients are large units of nutrients. These are the protein, fats and carbohydrates*

*Micro-nutrients are small units of nutrients. These are the vitamins, minerals and fatty acids. They are both needed for healthy body function. They are important for sperm count to be high. Without these there would be no more future children. Micro nutrients are smaller than Macro nutrients, but they are chemically more complex.*

- **Micronutrients** are nutrients required by humans and other living things throughout life in small quantities to orchestrate a whole range of physiological functions, but which the organism itself cannot produce. For people, they include dietary minerals in amounts generally less than 100 micrograms/day - as opposed to macrominerals which are required in larger quantities. The **microminerals** or **trace elements** include:  
*iron, cobalt, chromium, copper<sup>[2]</sup>, iodine, manganese, selenium, zinc and molybdenum. Micronutrients also include vitamins, which are organic compounds required as nutrients in tiny amounts by an organism.*

**No.3.Give two reasons why butter is suitable for creaming in cake making. (2 marks)**

- ❖ *It has high creaming power that is capacity to incorporate air during creaming as it has sufficient plasticity to trap air bubbles.*
- ❖ *It has good shorting power to shorten the gluten strands in the moistened flour readily breaking them hence making the mixture short and tender.*
- ❖ *It has good flavour.*
- ❖ *It is easy to cream- Light at room temperature*
- ❖ *As animal fat it contains vitamin A and D.*

**No.4.Give four reasons for blanching vegetables. (2 marks)**

- ❖ *stops the action of enzymes.*
- ❖ *kills bacteria.*
- ❖ *retains nutrients.*
- ❖ *retains colour.*
- ❖ *reduces bulk*

**No.5.Give four reasons for blanching vegetables**

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- ❖ kills bacteria.
- ❖ retains nutrients.
- ❖ retains colour.
- ❖ reduces bulk.

**No.6.Give two reasons for covering food while cooking. (2 marks)**

- ❖ To prevent loss of volatile nutrients
- ❖ To retain heat/ to cook faster
- ❖ To prevent foreign material from entering the pan/pot
- ❖ To prevent loss of flavour.
- ❖ To prevent evaporation of water.
- ❖ To ensure even cooking.

**No.7.State two problems that may occur on the feet as a result of wearing tight fitting shoes. (2 marks)**

- ❖ Corns
- ❖ Blisters
- ❖ In grown toe nails
- ❖ Bent toes/incorrectly arranged toes
- ❖ Bunions
- ❖ Poor blood circulation

**PP1 No.8.List four items in a First Aid kit that can be used to manage a sprain. (2 marks)**

- ❖ Bandages
- ❖ Razor blade / pair of scissors
- ❖ Clip / safety pins / adhesive tape
- ❖ Ointment
- ❖ Pain killers

**No.9.Name two waterborne diseases caused by poor sanitation. (1 mark)**

- ❖ Cholera
- ❖ Typhoid
- ❖ Gastroenteritis
- ❖ Amoebic dysentery

**No.10.State two remedies for morning sickness during pregnancy. (2 marks)**

- ❖ Take a cup of tea and some snacks e.g. biscuits in bed before getting up.
- ❖ Try and avoid greasy or fatty foods.
- ❖ Consult the doctor if the problems persist after the third month

**No.11.State two limitations of dry cleaning in laundry works (2 marks)**

- ❖ It is expensive
- ❖ Solvents are volatile
- ❖ Solvents are highly inflammable
- ❖ Solvents are poisonous
- ❖ It requires skill.

**No.12. State two functions of a pressing cloth. (2 marks)**

- ❖ To remove creases
- ❖ To enhance the appearance
- ❖ To kill germs

**No.13. Give two reasons for rinsing clothes. (2 marks)**

- ❖ To remove dirt and soap
- ❖ Freshen

**No.14. Give two methods of removing dust from surfaces in a home. (2 marks)**

- ❖ sweeping
- ❖ dusting
- ❖ brushing
- ❖ suction
- ❖ dispersal

**No.15. State the function of each of the following parts of a sewing machine. (2 marks)**

**(i) spool pin**

- ❖ To hold the reel of thread while sewing and winding the bobbin

**(ii) feed dog**

- ❖ To move fabric while sewing.

**No.16. Outline two reasons for blending fibres. (2 marks)**

- ❖ To improve on the quality of fibers like making them stronger.
- ❖ To stop static electricity e.g. when cotton is blended with man made fabric like rayon the static electricity is never generated.

**No.17. Give two reasons for interfacing a garment. (2 marks)**

- ❖ To give body or shape
- ❖ Stiffening to add firmness
- ❖ Giving a crisp tailored look to the area where applied
- ❖ Obtaining a good knife edge
- ❖ Increasing crease resistance
- ❖ Prevent stretching or sagging
- ❖ Reinforcement as for button and buttonholes area

**No.18. The size of a French seam is determined by: (2 marks)**

- ❖ Weight of fabric
- ❖ Effect desired
- ❖ Use of the garment

**No.19. Differentiate between trimmings and trimming as used in clothing construction. (2 marks)**

- ❖ Trimmings are sewing notions used for decorating garments such as laces and bias binding while
- ❖ Trimming is the action of cutting off excessive fabric on seams or edges of fabric.



**No.20.List four stitches used to finish a hem**

- ❖ Hemming stitches
- ❖ Whipping stitches
- ❖ Slip hemming stitches
- ❖ Herring bone
- ❖ Shell hemming

**No.21.Give the meaning of “counterfeit”**

- ❖ It is an imitation of what is a genuine item with an intention to deceive/defraud.

**No.22a.You are planning to host your sister's graduation party at home. Without the use of chlorine, outline the procedure you would use to make muddy contaminated water safe for drinking and store ready for use.(6mks)**

- ❖ Leave the water to stand for sometime for mud to settle at the bottom of the container and then decant
- ❖ filter using a filter paper/home filter/clean cloth
- ❖ Boil the water.
- ❖ Put the boiled water in a clean container
- ❖ Cover with clean lid/cover

**No.22b.Describe the procedure you would follow when laundering a coloured cotton handkerchief. (6 marks)**

- ❖ wash in warm soapy water using friction method
- ❖ rinse in clean warm water
- ❖ finally rinse in cold water, add vinegar
- ❖ dry in the shade
- ❖ iron while slightly damp using a hot iron. Air and fold appropriately

**No.22c).Outline the steps you would follow to thoroughly clean the dressing mirror. (8 marks)**

**Do not use commercial cleaners.**

- ❖ Collect all the equipment and materials required
- ❖ Remove dust using a dry) cloth wipes /rubs the mirror using a cloth wrung out of warm soapy water.
- ❖ Rinse using a cloth wrung out of clean warm water.
- ❖ Dry using a clean dry cloth/newspaper/sponge
- ❖ Buff mirror using a soft clean dry non-fluffy/ lintless cloth / newspaper.
- ❖ Clean equipment used and store appropriately.

**No.23ai.State two principles of food preservation (2 marks)**

- ❖ Application of heat.
- ❖ Removal of water / moisture / dehydration.
- ❖ Exclusion of air / oxygen.
- ❖ Reduction of temperature.
- ❖ Application of preservatives / chemicals

**No.23aii .Explain two disadvantages of preserving food, (2 marks)**

- ❖ May lead to destruction of some nutrients.
- ❖ Food may change in taste/flavour and colour.
- ❖ May lead to food poisoning if poorly preserved.
- ❖ Some foods are rendered unsuitable to some groups of people.

**No.23b.Explain four reasons why it would not be advisable to buy a refrigerator on hire purchase. (8 marks)**

- ❖ The final cost paid increases from the original as one has to pay the interest charged.
- ❖ It may wear out before the final payments are made.
- ❖ If one is unable to pay the monthly interest one will lose the refrigerator and the money already paid.
- ❖ Payments are not negotiable as when buying at cash.
- ❖ One misses joy of using the refrigerator fully until the whole amount is paid.

**No.23c.Giving a reason in each case, state four rules to observe when making short crust pastry. (8 marks)**

- ❖ All ingredients must be weighed accurately to come up with a quality product
- ❖ The mixture should be aerated as much as possible to allow proper raising of the product
- ❖ Pastry should be kept as cool as possible to avoid the fat melting
- ❖ The pastry should be handled as little as possible to avoid hardening the product
- ❖ The pastry should be rolled on a light floured surface to avoid sticking
- ❖ Pastry should be rolled with light to and fro movement to avoid extracting the trapped air
- ❖ The pastry should be baked in a fairly hot oven so that the water is quickly turned to steam to puff up the pastry
- ❖ All measured liquids should be added at once to give an even texture.

**No.24a.Highlight four pieces of information found on a receipt of goods sold.(4mks)**

- ❖ Date
- ❖ Client's name
- ❖ Payment of
- ❖ Paid By
- ❖ Received By
- ❖ Amount
- ❖ Cash/ Cheque

**No.24b.Outline the procedure of caring for a household duster after use. (6 marks)**

- ❖ Shake outside after use/remove any unwanted material.
- ❖ Soak /in cold water.
- ❖ Wash thoroughly in warm soapy water
- ❖ Rinse in warm water and finally in cold water to refreshen the fabric
- ❖ Dry in the open air
- ❖ Store in a dry well ventilated place

**PP1 No.24ci. (i)Give the systematic order of placing bedding items when preparing a bed. (7 marks)**

- ❖ A firm mattress
- ❖ Under blanket
- ❖ Sheets made of washable cotton material.
- ❖ Blankets to keep warm.
- ❖ Mosquito netting

**(ii) State one function of any three of the bedding items mentioned in (i). (3 marks)**

- ❖ *Waterproof sheet to protect the mattress or pad*
- ❖ *Mosquito netting to protect it from insect bites*
- ❖ *Blankets to keep warm in cool weather*

**PP1 No.25a.Explain three factors to consider when caring for a white nylon shirt.(6 marks)**

- ❖ *Avoid exposure to direct sunlight as it will yellow.*
- ❖ *Avoid rubbing as it piles.*
- ❖ *Avoid high temperature as it destroys the fibre/ melts/ burns/ scorch.*
- ❖ *Do not bleach as it will turn yellow.*
- ❖ *Wash separately from coloured garments to avoid discolouration*

**PP1 No.25b.Explain four qualities of a well made cuff. (8 marks)**

- ❖ *The type of seam is appropriate to the type of fabric, the position of the seam, the projected care of the garment, quality, and design.*
- ❖ *Stitch length is appropriate to the fabric and to the expected stress at the stitched location.*
- ❖ *Gathers are uniform and evenly distributed and stitched so as not to form pleats. Gathers are pressed flat only in the seam allowance*
- ❖ *The fashion fabric and the underlining fabric relate well—the garment is neither over-supported nor under-supported for the desired design effect.*
- ❖ *The interfacing complements and reinforces the fashion fabric without overpowering it.*
- ❖ *Interlinings are of lightweight or open weave fabrics with insulating properties.*
- ❖ *The lining is on the same grain as the fashion fabric*
- ❖ *Functional applied pockets are positioned at a location convenient for use.*
- ❖ *The width of the binding is even.*
- ❖ *Facings lie smoothly with no ripples or puckers.*
- ❖ *The width of the band is even unless otherwise designed.*
- ❖ *Under stitching holds the facing (neckline, collar, cuff, pocket) in place.*

**PP1 No.25c.Outline the steps to follow when mending a gaping seam on an apron. (6 marks)**

- ❖ *Mend before washing.*
- ❖ *Remove any loose threads in the areas to be mended.*
- ❖ *Hold with pins the old stitches line adding some extra ungaped portion if possible to prevent any further gaping.*
- ❖ *Press the seam.*
- ❖ *Tack the seam using temporary stitches.*
- ❖ *Remove the pins.*
- ❖ *Make permanent stitches*
- ❖ *Remove the temporary stitches*
- ❖ *Press the seam.*