**Term 3 – 2023 OPENER EXAM**

**HOME SCIENCE (441/1)**

 **FORM FOUR(4)**

**Time:** $ 2\frac{1}{2}Hours$

**MARKING SCHEME**

**SECTION A**

1. Reasons for covering food when cooking.
* To keep the heat in so that the food cooks faster.
* To prevent foreign objects from falling into the food.
* To save on energy.

**(½ mark for each point. ½ x 2 = 1mark)**

1. People who are more susceptible to tuberculosis (TB) infection.
* The elderly
* Young children and babies
* Persons living with a person suffering from tuberculosis in a crowded place
* Persons living with HIV
* Persons with chronic health conditions like diabetes or cancer.
* Malnourished persons.

**(½ mark for each point, ½ x 4 = 2marks)**

1. Qualities of a well-made machine fell seam.
* It is even in size throughout.
* The seam stitching is straight.
* Second line of stitching done very close to the fold.
* The fell is neatly tucked under with no visible raw edges.
* The fell is correct in size (6mm).
* The fell lies flat on the right and the wrong side.
* The fell is pressed toward the back.

**(1 mark for each point, 1 x 2 = 2marks)**

1. Ways avoiding worm infestation.
* Wash hands before eating or preparing food.
* Drink treated or boiled water.
* Deworm pets regularly.
* Clean all vegetables and fruits thoroughly before eating or cooking.
* Cook meat thoroughly/avoid eating undercooked meat.
* Avoid walking barefoot on soil.
* Proper fecal disposal.

**(1 mark for each point, 1 x 2 = 2marks)**

1. Ways the current drought may affect consumers.
* Prices of food may go up due to low supply.
* There may be scarcity of food in the market.
* It may lead to malnutrition.
* There may be more cases of insecurity.
* Price of electricity may go up due to low water in dams.

**(1 mark for each point, 1 x 2 =2marks)**

1. Reasons for laundering clothes.
* Helps to remove microorganisms on the clothes.
* To maintain the colour of the clothes.
* To avoid a build-up of dirt that could weaken the clothes.
* To avoid attracting pests like lice.
* To avoid bad odour from sweat and build-up of perfumes.
* To look neat and presentable.

**(½ mark for each point, ½ x 4 = 2marks)**

1. Qualities of children’s play clothes.
* They should be strong so as not tear during play.
* They should withstand frequent washing.
* They should not stain easily.
* They should be loose to allow movement.
* They should be strongly stitched.
* They should be easy to put on and remove.
* They should not be too expensive.
* They should be comfortable to wear.

**(1 mark for each point, 1 x 3 = 3marks)**

1. Qualities of good firewood.
* Should be dry.
* It should not smoke too much.
* It should not be from a poisonous tree.
* It should not splutter.

**(½ mark for each point, ½ x 2 = 1mark)**

1. Ways of reducing spread of infection when taking care of a child with chickenpox.
* Wash hands thoroughly with soap and water after attending to the child.
* Isolate the child especially keep them away from other children.
* Keep their room well ventilated.
* Keep the room clean.
* Disinfect their clothing during laundry.
* Wash their clothes separate from the other family wash.
* Wear protective clothing when attending to the child and remove them after.

**(1 mark for each point, 1 x 2 =2marks)**

1. Dangers of careless sex amongst young people.
* Risk of sexually transmitted infections (STI’s).
* Risk of unplanned pregnancy in girls.
* High risk of contracting HIV.
* Poor self-image.
* Risk of dropping out of school.

**(1 mark for each point, 1 x 3 = 3marks)**

1. Ways of finishing of the lower edge of a girl’s pair of shorts decoratively.
* Use of lace
* Using a contrasting facing on RS
* Use of a frill
* Binding using a contrasting colour.
* Using decorative stiches when working the hem such as herringbone and cross stitch.

**(½ mark for each point, ½ x 4 = 2marks)**

1. Precautions to observe when planning meals for vegans.
* Ensure there is enough proteins in the diet.
* Use spices to flavour food to make the food tasty.
* Ensure that the oil and any additives are safe for vegans.
* Take caution to ensure that the food has minerals and vitamins that are in low amounts in plants.

**(1 mark for each point, 1 x 2 = 2marks)**

1. Uses of a seam ripper in sewing**.**
* To undo/remove unwanted stitches.
* To cut buttonholes in the absence of buttonhole scissors.

**(½ mark for each point, ½ x 2 = 1mark)**

1. Meaning of the following terms in cookery.

**Course**

* A single food or set of food items that are served together in a meal all at the same time and eaten in a particular order.

**Entrée**

* The main course of a meal comprising of a protein, carbohydrate and vegetable.

**Saute**

Fry quickly in a little hot fat.

**(1 mark for each correct definition, 1 x 3 = 3marks)**

1. Types of pockets that can be found on a shirt/blouse.
* Patch pocket
* In-seam pocket
* Bound pocket
* Placket pocket
* Faux pocket
* Welt pocket

**(½ mark for each point, ½ x 4 = 2marks)**

1. Factors that can predispose a person to diabetes.
* Being overweight.
* Have a history of diabetes in the family.
* Low physical activity.
* Pregnancy – gestational diabetes.
* Age- over 45 years of age.

**(½ mark for each point, ½ x 2 = 1mark)**

1. Diseases that can be spread by a cook through careless handling of food.
* Cholera
* Typhoid
* Amoeba
* Dysentery
* Hepatitis A

**(½ mark for each point, ½ x 2 = 1mark)**

1. Ways of caring for a kitchen bin.
* Empty the bin daily.
* Line the bin.
* Clean the bin daily.
* Keep the bin away from heat.
* Avoid dropping or banging the bin.

**(1 mark for each point, 1 x 2 = 2marks)**

1. Qualities of a good food storage store.
* Should be well ventilated.
* It should have shelves.
* It should have a door.
* It should not have openings/vents that can let in rodents.
* It should be cool (not getting direct sunlight)
* It should be easy to access from the kitchen.
* It should be dry-not damp.

**(1 mark for each point, 1 x 2 = 2marks)**

1. Disadvantages of clothes made from cotton.
* They crease easily.
* They are easily attacked by mildew if stored in a damp place.
* They shrink easily unless given shrink proof finish.
* They are highly inflammable.
* They lack lustre/ they are dull

**(1 mark for each point, 1 x 2 = 2marks)**

1. Reasons for weaning a baby.
* New tastes and textures encourage babies to eat a wide range of foods.
* Solid foods help babies to practice lip, tongue and jaw movement.
* Breast milk is eventually not enough to satisfy baby’s hunger.
* Breast milk does not contain all the nutrients the baby needs for healthy growth after 6 months.
* To allow the mother go back to her regular routine.

**(1 mark for each point, 1 x 2 = 2marks)**

**SECTION B**

1. Procedure for laundering a loose coloured lesso.
* Collect all equipment and materials needed (½).
* Wash the lesso quickly(½) by kneading and squeezing(½) in warm(½) water containing a mild detergent(½)
* Rinse thoroughly in warm(½) water to remove all dirt and detergent
* Give a final(½) cold(½) rinse containing salt(½) to fix colour and vinegar(½) to brighten the colour
* Squeeze out water and dry flat(½) in the shade(½) on a clean surface(½)
* Iron using a relatively hot(½) iron on the wrong side(½) while still damp(½)
* Air(½) to remove all moisture
* Fold(½) using the four screen fold(½) and store(½) in a clean, dry and well lined place
* Clear up the working area (½).

**(½ mark for correct procedures as indicated, ½ x 18 = 9marks)**

1. Procedure for cleaning a calabash.
* Collect equipment and materials needed
* Clean in plain(½) warm(½) water using a sisal pad/soft pad(½) to avoid scratching the calabash
* Rinse thoroughly in clean warm(½) water
* Give a final rinse in clean cold(½) water to close the grain
* Pat with a clean dish cloth(½) to remove excess water
* Dry in an airy(½) place with the open side facing down/upside down(½)
* When completely dry store in a clean dry(½) place
* Clean and store the cleaning equipment.

**(½ mark for correct procedures as indicated, ½ x 8 = 4marks)**

1. Procedure of cleaning a polished three legged stool.
* Protect the working surface(½)
* Collect all the equipment and materials needed
* Dust(½) the stool using a dusting cloth
* Wipe(½) the stool using a cloth wrung from warm(½) soapy(½) water
* Wipe the legs(½) and the underside(½)
* Rinse(½) by wiping(½) with a cloth wrung from clean water
* Wipe with a clean dry cloth(½) to remove water
* Leave for a while in a cool airy(½) place to dry completely
* Apply polish sparingly(½) using circular motion/use spray polish
* Leave the polish for a while to settle (½)
* Buff(½) with a dry soft cloth(½)
* Store(½) in a clean area in the house
* Clear the working surface(½)

**(½ mark for correct procedures as indicated, ½ x 14 = 7marks)**

**SECTION C**

1. Diagram of a skirt used for questions a-f:



1. Features labelled A to D.
* A Skirt yoke/yoke
* B Gathers
* C In-seam pocket
* D Frill

**(Correct naming 1 mark each, 1 x 4 = 4marks)**

1. Possible ways of finishing the top of the skirt.
* Using a facing
* Use of a waistband
* Using elastic

**(1 mark for each point, 1 x 2 =2marks)**

1. Ways of finishing of the lower edge other than using a frill.
* Using lace
* Binding
* Making a hem
* Use of a facing

**(1 mark for each point, 1 x 3 = 3marks)**

1. (i) Name of the seam used in joining the yoke to the skirt.
* Overlaid seam

**(Correct naming of seam 1 mark, 1 x 1 = 1mark)**

1. Qualities of a well-made overlaid seam.
* The overlay is stitched very close to the fold.
* Stitching is straight.
* The stitching is done directly over the stitching line of the underlay.
* The seam lies flat.
* The seam allowance is trimmed to 1 cm.
* The seam is well neatened.

**(1 mark for each point, 1 x 4 = 4marks)**

1. Rules to observe when working gathers.
* Work two rows of running stitches/machine gathering stitch 6mm above and 6mm below the stitching line.
* Secure one end of the gathers by tying a knot.
* Pull the gathers and distribute them evenly.
* Secure the other end of the gathers on a pin using a letter 8 motion.

**(1 mark for each point, 1 x 3 = 3marks)**

1. Qualities of a well-made frill.
* It should be firmly stitched to avoid undoing/coming off.
* It should be evenly stitched to maintain shape.
* It should be even in size for neatness.
* The lower edge should be correctly finished to enclose raw edges.
* Gathers should be evenly distributed for good drape.
1. **mark for each point, 1 x 3 = 3marks)**
2.
3. Qualities of a good charcoal iron.
* It should have a well-insulated handle to avoid accidental burns.
* The lid should be well fixed to avoid opening when using.
* The locking device should be firmly fixed to avoid accidental opening during use.it should have vents on the lower and upper side to allow for proper burning of the charcoal.
* It should have an inner rack to hold charcoal so that the bottom does not get too hot.
* It should have a stand to place the hot iron and avoid burning surfaces.
* The sole should be smooth to avoid snagging thread on clothes.

**(1 mark for each point, 1 x 4 = 4marks)**

1. Advantages of machine washing over hand washing.
* It saves on labour thus making one less tired than when hand washing.
* It washes faster than using hands to wash a large amount of clothes thus saving on time.
* It gives one room to attend to other activities when the washing is going on unlike hand washing where one has to do the work.
* One can wash heavy household articles like blankets that may be difficult to handle if hand washing.
* Most machines dry the clothes after washing so clothes can be finished straight from the machine or put out to dry very briefly. In hand washing clothes take a long time to dry.
* Clothes can easily be disinfected by boiling for cotton items since the machine can be set to heat water to boiling point.
* Depending on the size of the machine, it handles a bigger wash load than can be handled in hand washing at a go thus saving on water

**(1 mark for each point, 1 x 5 = 5marks)**

1. Points to consider when buying washing equipment for laundry.
* The amount of washing. This helps one to buy equipment that are of good size to handle the amount of washing done.
* The design of the equipment. It should have a flat bottom to avoid toppling when washing and should not have grooves that make it difficult to clean.
* It should be wide enough at the mouth. This allows one to manipulate clothes easily.
* They should be adequate in number. This allows one to have ready water for the process of washing and rinsing without waiting to empty some of the equipment.
* Storage space available. To ensure that there is enough space to store the equipment well.

**(1 mark each for statement, 1 mark for explanation, 2 x 3 = 6marks)**

1. Advantages of drying clothes on a clothes line.
* Clothes are raised from the ground and do not get dirt from the surface.
* They are less likely to have insects crawling on them.
* They are safe from being trampled/stepped on.
* If well secured they dry faster than when on the ground because the wind blows on them and allows water to drain.
* They can be dried straight allowing water to drip down and keep the clothes less creased.

**(1 mark for each point, 1 x 5 = 5marks)**

1.
2. Dangers of rising obesity in the population.
* Obesity increases risk of cardiovascular diseases.
* Obesity may also lead to higher cases of diabetes type 2.
* People with obesity are more prone to joint problems also known as osteoarthritis.
* Higher incidences of chronic illnesses means that the population is less productive.
* More money is spent by families and the government to treat chronic conditions.
* Life expectancy is reduced as chronic illness raise mortality rate.

**(1 mark for each point, 1 x 4 = 4marks)**

1. Qualities of a good kitchen work surface.
* It should be easy to clean. This makes it easy to ensure proper hygiene of surfaces.
* It should be water resistant. This ensures that the surface is not destroyed by constant exposure to water.
* It should not stain easily. The surface is exposed to different foods and extracts that may colour and stain surfaces.
* It should be durable. This allows the surface to withstand daily use and cleaning without wearing off.
* It should be smooth. Any cracks or grooves on the surface can easily hold dirt and become a source of micro-organisms.
* The surface should be resistant to scratches and scrapes. This is because sometimes the surface can be used for food preparation that requires use of sharp items.
* It should be non-flammable. Due to use of fire in the kitchen, the surfaces should not burn easily.
* It should be of a convenient height. This reduces strain when working thus it should neither be too low or too high.

**(1 mark each for statement, 1 mark for explanation, 2 x 3 = 6marks)**

1. Baby growth chart graph for questions that follow.



1. Factors that could have led to loss of weight in the first four days of a baby’s life**.**
* The mother was not producing enough milk. Some mothers take a little long to produce milk and even when it comes it may be little and thus the baby does not get enough.
* The baby was premature. A premature baby may be unable to feed and thus lose weight.
* The mother had complications after delivery and could thus not take care of the baby in the first four days.
* The baby is unable to latch and thus does not get enough milk.
* The baby may be lazy and sleepy. Some babies sleep for long and not awake long enough to feed well.

**(1 mark each for statement, 1 mark for explanation, 2 x 3 = 6marks)**

1. Dangers continuous drop in weight in an infant.
* It may lead to stunted growth.
* Babies may be slow in reaching milestones.
* The baby may become malnourished.
* The baby may die.
* The baby may have slow development of the brain.

**(1 mark for each point, 1 x 4 = 4marks)**