Name……………………………………….. Index No….......Class............... Sign............

441/ 1

HOME SCIENCE

(THEORY)

Paper 1

July, 2024

2 ½ Hours

**MOKASA II JOINT EXAMINATIONS**

**Kenya Certificate of Secondary Education**

441/ 1

MARKING SCHEME

***Instructions to candidates***

1. *Write your name and index number in the spaces provided above.*
2. *This paper consists of three sections A, B and C.*
3. *Answer all questions in Section A and B and any TWO questions from section C*
4. *Answers to all questions must be written in this booklet*
5. *This paper consists of 10 printed pages.*
6. *Candidates should answer the questions in English.*

**FOR EXAMINER’S USE ONLY**

|  |  |  |  |
| --- | --- | --- | --- |
| **SECTION** | **QUESTION** | **MAXIMUM SCORE** | **CANDIDATE’S SCORE** |
| A | 1 – 40 | 40 |  |
| B | 41a, b | 20 |  |
| C | 42 | 20 |  |
|  | 43 | 20 |  |
|  | 44 | 20 |  |
|  | **TOTAL** | **100** |  |

**SECTION A (40 MARKS)**

**Attempt ALL questions in this section. Write answers in the spaces provided**

1. Give two grooming requirements of persons handling food (1mark)
* **Wear protective clothing to prevent contaminants from outdoor clothing coming in contact with food/surfaces/equipment**
* **Cover hair completely to prevent hair from coming in contact with food**
* **Keep short nails**
* **Clean hands before handling foods**
1. Indicate the most suitable method of cooking for the following groups of people;
2. Convalescents – **steaming** , **boiling**
3. Adolescents **- frying, roasting** (1mark)
4. Name two childhood nutritional disorders that are caused by lack of vitamin B1(thiamin) and vitamin D respectively (1mark)
5. Vitamin B1 – **infantile beriberi**
6. Vitamin D – **rickets**
7. Give two benefits of prior planning of a meal to the host (1mark)
* **Enables host to save on resources eg time, energy, money, food**
* **Reduces stress of having to think of where to source items, food etc**
* **Helps the host to source for help where need be**
* **Helps host to include catch up time for rejuvenation**
1. Describe any two aspects of variety in a meal (1mark)
* **Colour-a range of bright and dark colouration using Ingredients, colourings, garnishes/decorations**
* **Texture- refers to properties of food sensed in the mouth and hands i.e. crunchy, mushy, soft/hard**
* **Flavours –are the sensory impressions that one experiences when consuming foods, through taste and smell**
1. Give two reasons why breakfast is considered as the most important meal of the day

 (1mark)

* **Gives foundation for carrying out the day’s activities by supplying the body with nutrients needed.**
* **It’s the first meal taken after many hours of rest hence stomach is empty**
1. Differentiate the two types of vegetarians (1mark)
* **Lacto vegetarian- they avoid animal flesh but use dairy products i.e. milk whereas/ while Strict/vegan vegetarian- they avoid all animal products**
1. Give two reasons for including citrus fruits to the diets of patients recuperating at home

 (1mark)

* **Aid in digestion as they have a lot of roughage**
* **Encourage secretion of saliva which is antiseptic and Contain amylase enzyme for digestion**
* **rich in vit C, which helps the body to resist infection/ reinfection**
1. Name two examples of shortenings used in baking (1mark)
* **Margarine**
* **Cooking fat**
* **Cooking oil**
* **Butter**
* **lard**
1. Mention the two uses of batter mixture (1mark)
* **for coating foods to be deep fried**
* **for making snacks /food dishes i.e. pancakes**
1. List two ways of neutralizing an acidic poison at home (1 mark)
* **Victim be given milk of magnesia**
* **Victim be given crushed chalk put in milk/water/milk/egg white or soap solution**
* **Victim be given milk**
1. Write down two reasons why non-stick cooking pans are becoming popular in today’s kitchens (1mark)
* **reduced chances of food sticking**
* **reduced chances of food burning**
* **easy to clean up –no need for scrubbing**
* **even cooking of food –distributes heat evenly**
* **does not need lots of cooking oil**
1. List down two functions of whiteners on white canvas shoes (1mark)
* **To enhance the white colour by camouflaging the yellowing effect**
* **To improve the texture/stiffness of shoes**
1. Your soccer coach has rented a flat near the stadium prior to the national games. Give two disadvantages of this type of housing (1mark)
* **Climbing the staircase is tiring**
* **Pests can easily crawl from one house unit to another**
* **Noises from neighboring units can be disturbing**
* **Fire can easily spread**
* **Hard to keep the compound clean**
1. Give reasons for the following practices done during weekly cleaning of a pit latrine
2. High dusting **– remove cobwebs and dust**
3. Smoking **– kill maggots/flies**  (1mark)
4. State two applications of chemistry knowledge at home (1mark)
* **Useful materials used at home ie toothpaste, paraffin, use chemistry knowledge**
* **Stain removal at home uses chemistry application**
* **Soap making process involves chemistry knowledge**
1. State two benefits of “drip drying’’ on a garment (1mark)
* **Reduces heavy creases**
* **Any dirt left on the fabric can be drained off by the water**
1. Mention two ways of disposing refuse that are beneficial to farming (1mark)
* **Feeding animals eg dogs, cows, pigs**
* **Converting refuse to manure**
* **Mulching**
1. Identify two functions of a stool in an invalid’s room (1mark)
* **To place beddings before making the bed**
* **To sit the patient during cleaning (wiping, bathing**)
* **For placing flowers to cheer the mood of the patient**
* **Used as a foot rest**
* **Place food trays on top of**
1. Mention two basic functions of kitchen chimneys (1mark)
* **To extract cooking smells**
* **To extract smoke from the kitchen**
* **To extract heat from the equipment and cooking processes**
1. Suggest two factors to bear in mind when choosing fuel for home consumption (1mark)
* **Running costs**
* **Cost of equipment to be used with it**
* **Convenience of handling the fuel (time taken to light)**
* **Family needs**
* **Versatility of the fuel**
* **User friendly**
1. State two factors to consider when selecting lighting for a specific room (1mark)
* **Size of the room- lighting intensity should correspond to the size of the room**
* **Function/use of room- should be suitable to the activity in the room**
* **Colour of the walls**
* **The orientation in relation to the sun**
* **Texture of walls**
1. Identify two types of twins in pregnancy (1mark)
* **Identical twins**
* **Fraternal twins**
1. Give two reasons why baby napkins are slowly fading away (1mark)
* **Take longer to dry especially during rainy seasons**
* **Difficult to wash out stains**
* **They are less hygienic**
* **Cumbersome to carry around**
* **Difficult**
1. Define the term immunization (1mark)
* **This is the introduction of a vaccine into the body to produce antibodies which protect /fight diseases and infections**
1. Apart from cereal and protein, name any two components of a multi-mix (1mark)
* **A vegetable**
* **Supplement (oil, sugar, fruit)**
1. Identify two characteristics shared by cotton and viscose when exposed to a flame(1mark
* **Emits smell of burnt paper**
* **Leaves grey ashes**
1. Give two points to ascertain the versatility of a running stitch (1mark)
* **Can be used to hold work temporarily e.g. gathering stitches**
* **Can be used to hold seams permanently (joining)**
* **Can give a decorative effect if several rows are worked on the right surface of a cloth**
* **Can be used to neaten edges (edge stitching)**
1. Mention two functions of the stitch length regulator (1mark)
* **To adjust the length of stitches desired during sewing**
* **Adjusted to give reverse stitches thus reinforcing the stitches at the end and start of stitching**
* **Used in darning where work is moved back and forth, side and side till the whole worn-out section is done**
1. Mention two instances where binding is the most suitable method of finishing seams

 (1mark)

* **On fabrics that fray easily**
* **On unlined dressing gowns, cover-ups, kimonos to give a good finish/neatness**
1. Suggest two inconspicuous methods of controlling fullness at the crown of set in sleeves

 (1mark)

* **Darts**
* **easing**
1. Name two types of facings (1mark)
* **Extended facing**
* **Fitted/shaped facing**
1. State two advantages of making your own clothes (1mark)
* **One chooses their own fabric**
* **One chooses their own style**
* **One derives satisfaction by expressing personal creativity**
* **One gets better fit as own measurements are used**
* **Cuts down on clothing expenditure ie sewing labour**
1. Identify two reasons for introducing a thread shank on a flat button (1mark)
* **Prevents button from breaking**
* **Gives allowance for thickness of overlap of a fabric**
1. Describe any two design features in clothing that can give an illusion of enlargement of one’s figure (1mark)
* **Wearing clothes with horizontal lines**
* **Wearing bright coloured clothes**
* **Wearing clothes made of fluffy materials**
* **Wearing clothes with large floral designs**
* **Wearing clothes made of baggy fabrics**
1. Using one food example explain the meaning of complementary goods (1mark)
* **It refers to an item that needs to be used with another e.g. sugar and tea**
1. Discuss two disadvantages of buying goods using hard cash (1mark)
* **Risky to carry a large amount of money ie to buy a family asset**
* **You can misplace or loose it**
* **Its difficult to track your expenses using money**
* **One cannot buy an item unless they can fully pay for the item**
* **Difficult/takes too long to buy some items such as house**
* **Bulky to carry**
1. Name two acts of government tasked with protection of consumers (1mark)
* **Trade description act – chapter 505**
* **Weight and measures act –chapter 513**
* **Price control act**
* **Food and drugs act**
* **Public health act**
1. State two disadvantages of hoarding food (1mark)
* **Food will be expensive due to shortage**
* **Leads to wastage of time and energy in search for unavailable goods**
1. List down 2 basic needs to a young family (1mark)
* **Shelter**
* **Food**
* **Water**
* **Clothing**

**SECTION B(20 MARKS)**

***Compulsory- Answer question 41 in the spaces provided***

41. you have taken off some time of your half-term break to do the following tasks for your mother.

1. Thoroughly launder her woolen shawl (8marks)

|  |  |
| --- | --- |
| **Collect equipment and materials** | **to save on time and energy** |
| **Take measurements and record** | **to put the garment back to its original size after drying**  |
| **Flick the shawl** | **to remove loose dirt** |
| **Wash quickly in warm mild detergent water using kneading and squeezing** | **to remove maximum dirt , to prevent shrinking and felting , to prevent weakening** |
| **Rinse severally/repeatedly in clean warm water**  | **To remove maximum soap and dirt** |
| **Squeeze out excess water**  | **To enhance quick drying**  |
| **Roll in a clean towel**  | **To remove moisture** |
| **Lay it on a flat surface in the shade with the W.S out**  | **To dry and prevent stretching ,to prevent weakening of the garment by the sun** |
| **Re-take measurements** | **To confirm size and fix it to its original size and shape** |
| **Press indirectly using a warm iron**  | **To remove maximum creases and prevent formation of ironing marks** |
|  **Air**  | **To dry completely/remove ironing odours** |
| **Fold/hang in a wardrobe**  | **For neatness/ easy retrieval** |
| **Place naphthalene balls in the wardrobe** | **To prevent damage by moths**  |
| **Clean and store equipments used**  | **For future use**  |

1. Clean the cemented kitchen counter top where you earlier worked on (7marks)

|  |  |
| --- | --- |
| **Collect equipment and materials**  | **to save on time and energy** |
| **wipe using a dry kitchen cloth** | **To remove loose dirt/for easy cleaning**  |
| **Using a scouring pad/ brush, scrub the counter top in warm soapy water working in circular motions, small sections at a time, overlapping parts and pay attention to edges**  | **To remove maximum dirt and to ensure no part is left out**  |
| **Rinse by wiping with a kitchen cloth wrung out of clean warm severally**  | **To remove maximum soap and dirt**  |
| **Finally rinse using a cloth wrung out of cold water** | **To freshen the surface** |
| **Dry thoroughly with a clean dry cloth**  | **To remove maximum moisture**  |
| **Buff with a dry lint-less/non-fluffy cloth** | **To obtain shine** |
| **Clean and store equipment used in a dry clean store room** | **For future use** |

1. Thoroughly clean the stainless steel balloon whisk you used to make pancake batter (5marks)

|  |  |
| --- | --- |
| **Collect equipment and material to be used**  | **To save on time and energy** |
| **Run it/ beat it in cold water**  | **To remove loose dirt/ for easy cleaning**  |
| **Soak the whisk in cold water**  | **To dislodge fixed dirt**  |
| **Clean thoroughly in hot soapy water using a sponge while paying attention to the handle and in between the tines**  | **To remove maximum dirt and to ensure that all particles are removed**  |
| **Rinse thoroughly in clean hot water**  | **To remove maximum soap and dirt**  |
| **Final rinse in hot water**  | **To allow fast evaporation of water/ avoid formation of water marks**  |
| **Dry completely using a clean dry cloth /kitchen towel** | **To remove maximum moisture**  |
| **Polish/buff using a clean soft dry non-fluffy cloth**  | **To obtain shine**  |
| **Store in a kitchen drawer/ cupboard**  | **To prevent it from getting dirty easily /for easy retrieval** |
| **Clean and store the equipments**  | **For future use**  |

**SECTION C (40 MARKS)**

***Answer any TWO questions from this section in the spaces provided at the end .***

42. A) Highlight four dishes that can be made from left over boiled eggs (4mark)

* **Making of egg curry**
* **Making of scotch eggs**
* **Used in making egg sandwiches**
* **Sliced and used for garnishing**
* **Deviled egg and used as an appetizer**
* **Boiled egg can be crumbled on a toast for breakfast**

 (B) Loose covers have made a comeback in the soft furnishing markets. Give four reasons to explain this move (4marks)

* **For decoration/enhance appearance of the room**
* **For protection against wear, tear and dirt**
* **For easy maintenance as they are cheaper to laundry**
* **To improve the appearance of an unattractive furniture**
* **For warmth i.e. on leather seats**

 C) Explain four points to consider when buying baby’s clothes (4marks)

* **Non-static charged for baby’s comfort**
* **Openings – they should have openings at the front/back to allow ease in movement**
* **Variety(many) to allow frequent changing as desired**
* **Should be warm/cool as desired (as weather dictates)**
* **They should be light in weight for baby’s comfort and ease**
* **They should be soft for comfort as the baby’s skin is still delicate**
* **They should have a suitable opening for ease in putting on and off**
* **Size; They should be slightly loose to enable free movement of baby’s limbs**

( D) You have decided to patch your younger sisters overall dress instead of darning. Give four explanations to your decision (4marks)

* **A patch will give a decorative finish to the overall in case of an applique**
* **To cover the big hole as patching is suitable**
* **Patching in appropriate for the weight of fabric**
* **Decide for a patch for its strength as the garment is laundered often**

 (E) Give four reasons for making a shopping list before visiting a supermarket (4marks)

* **To help one in budgeting and sourcing money in advance**
* **To exhaust all needs of the family without forgetting**
* **To minimize impulse buying**
* **To make shopping easy and fast as preferred shops would have been identified**
* **It will ensure family’s priorities are met**

43. (A) State four functions of retinol as a nutritional necessity for children (4marks)

* **Essential for growth of children**
* **prevents night blindness in children**
* **prevents total blindness in children (keratomalacia)**
* **protects children against colds and any other infections of the respiratory tract by maintaining a healthy viscous membrane**

 ( B) Explain any four advantages of breast milk as compared to packed milk (4marks)

* **its clean and free from germs**
* **always ready and requires zero preparation**
* **always at the right temperatures**
* **its cost free as no money is required to buy it**
* **contains all the necessary nutrients in the right proportion/concentration**

 ( C) Describe four ways of ensuring safety in storage of firewood (4marks)

* **storage racks above the fire place should be strongly fixed to avoid firewood from crushing down on users /utensils or surfaces**
* **should be cut into convenient sizes for easy storage**
* **arranged in order**
* **they should be arranged with logs away from traffic to prevent stamping and falling on**
* **store with sharp end facing away from traffic**
* **thorns on wood should be scrapped off before storage to prevent pricks when fetching wood**

 ( D) A sample of a girl’s dress top is shown below. Study and name parts A-H (4marks)

1. – **collar D- bust dart G- sleeve ties**
2. **– inverted pleat E-frill H- patch pocket**
3. **– roleauloop F- sleeve**

 (E) State and explain four scarcity based problems of a consumer in buying (4marks)

* **Lack of money – money determines ones purchasing power**
* **Lack of goods- in availability of quality goods despite having money to purchase**
* **Lack of services- many essential services are never adequate**
* **Scarcity of time –the process of buying requires a lot of time to write a budget, window shop**
* **Scarcity of energy –the sick, aged etc. lack adequate energy to go through the process of buying therefore prone to exploitation**

44. A) A house wife has chosen to buy readymade cakes for the family. State and explain four disadvantages of readymade food products (4marks)

* **Some have additives such as preservatives whose constant use may be hazards to the human health**
* **Their nutritive value may be inferior to their fresh ones due to inadequate use of ingredients i.e. eggs**
* **One may not get their desired flavour**
* **They can easily cause food poisoning if poorly preserved or if expired**
* **They can easily get contaminated during processing and packaging**

(B) As a MOKASA beauty pageant 2024, outline four ways you would use to enhance your looks for the competition (4marks)

* **Wearing well-fitting, well mended, well, laundered clothes that suit the outfit and occasion**
* **Using cosmetics appropriately.**
* **Cleaning yourself thoroughly from head to toes**
* **Using well-chosen jewellery that suit the outfit and occasion**

 (C) Explain four roles of the family in a child’s play (4marks)

* **Providing play items through buying or improvising play items**
* **Dressing them in comfortable clothes which allow for free movement**
* **Provide conclusive spacious environment for children**
* **Playing as play mates /teammates together with the children to provide company**
* **Providing play time by disengaging the children when time comes**
* **Encourage responsibility in children to children to return keep toys offer use**

 (D) Outline the preparation of cut in one waistband in readiness for attaching (4marks)

* **With the R.S together fold the waistband lengthwise. Match notches, raw edges, dots and stitching line**
* **Pin and tack on either sides of the waistband on the stitching line**
* **Remove pins and machine stitch on the FL**
* **Remove tacking, trim the seam allowance to 6mm and clip corners.**
* **Press seam open and turn waistband to the R.S pushing out the corners to sharp points**
* **Final press to obtain a knife edge**

 (E) Give four duties of an advertising company (4marks)

* **Informs the consumer on the availability of certain goods and services**
* **It passes information to the consumers about a new product**
* **Its role is to provide additional information about a product ie nutritive value**
* **Informs a consumer about the variety of a product**