

4.13 HOME SCIENCE (441)

4.13.1 Home Science Paper 1 (441/1)

SECTION A (40 MARKS)

1.	Materials that are suitable for packing foods. <ul style="list-style-type: none"> - Plastic bags. - Aluminum foil. - Grease proof paper. - Cling film. - Paper bags. - Polythene bags. 	Any 4 x ½ = (2 marks)
2.	Signs and symptoms of anaemia. <ul style="list-style-type: none"> - Weakness and dizziness. - Pronounced heartbeat. - Shortness of breath when performing normal tasks. - Paleness of tongue, gums and inner side of the eyelids. 	Any 2 x 1 = (2 marks)
3.	Benefit of thorough thawing of frozen foods before cooking. <ul style="list-style-type: none"> - To ensure that heat penetrates the food adequately and kills any harmful bacteria. 	(2 marks)
4.	Ways of conserving vitamin C during storage. <ul style="list-style-type: none"> - Foods containing vitamin C should not be stored for a long time as they are easily destroyed when exposed to air. - Avoid cutting fruits and vegetables before storing. - Store fruits and vegetables containing vitamin C in a cool place away from direct sunlight. - Discourage blanching vegetables before storing. 	Any 2 x 1 = (2 marks)
5	Difference between batter and dough in cooking. Batters are flour mixtures of flowing consistency while doughs are flour mixtures of dropping or stiff consistency.	Well differentiated = (2 marks)
6.	Types of skin infections caused by poor personal hygiene. <ul style="list-style-type: none"> - Dandruff. - Ringworms. - Athlete's foot. - Acne. 	Any 2 x 1 = (2 marks)
7.	Meaning of the term Adolescence. It is the period between childhood and adulthood where girls and boys experience physical, emotional and social changes within their bodies.	Well explained = (2 marks)
8.	Description of the term immunisation. Immunisation is the process of protecting someone from a disease or infection by administering a vaccine.	Well described = (2 marks)

9.	Types of drainage used in the home. <ul style="list-style-type: none"> - Open. - Closed. - Semi concealed. 	Any 2 x 1 = (2 marks)
10.	Symptoms of Hookworm infestation: <ul style="list-style-type: none"> (i) Dry cough (ii) Diarrhoea (iii) Abdominal pain (iv) Anaemia (v) Itching at the entry point 	Any 2 x ½ = (1 mark)
11.	Surfaces best cleaned using the scrubbing method. <ul style="list-style-type: none"> - Terrazzo floor. - Cemented floor. - Toilet bowls. - Plain wooden surfaces. 	Any 2 x 1 = 2 marks
12.	Ways in which desirable habits in children are formed through; <ul style="list-style-type: none"> - Observations. - Imitations. - Repeated practice. 	Any 2 x 1 = (2 marks)
13.	Pieces of information that should be included in an invoice of goods sold. <ul style="list-style-type: none"> - Name and address of the seller. - Date of the sale. - An exact description of the goods. - Quantity of goods sold. - Price charged. 	Any 4 x ½ = (2 marks)
14.	Meaning of consumer protection. <ul style="list-style-type: none"> - Is the act of safeguarding a consumer from exploitation by producers, traders or other consumers. 	Well explained = (2 marks)
15.	Methods of removing dirt from surface: <ul style="list-style-type: none"> (i) Sweeping (ii) Dusting (iii) Brushing/Scrubbing (iv) Suction 	Any 4 x ½ = (2 marks)
16.	Special treatments given to garment after washing. <ul style="list-style-type: none"> - Starching. - Blueing. - Fabric conditioning. 	Any 2 x 1 = (2 marks)
17.	Classification of natural fibres. <ul style="list-style-type: none"> - Animal fibres. - Plant fibres. - Mineral fibres. 	Any 2 x 1 = (2 marks)
18.	Garments where the use of an in-seam pocket would be appropriate. <ul style="list-style-type: none"> - Trouser. - Skirt. - Shorts. - Dress. 	Any 2 x 1 = (2 marks)

19	Points to observe to ensure effectiveness of cutting out scissors when in use. <ul style="list-style-type: none"> - Do not use for cutting hair, paper. - Hold them correctly when in use. - Do not drop them. - Wipe after use. 	Any 2 x 1 = (2 marks)
20	Types of permanent hand stitches used to make a boy's shorts. <ul style="list-style-type: none"> - Hemming. - Backstitch. - Over sewing. - Over casing. 	Any 2 x ½ = (1 mark)
21	Pattern pieces that you would draft in preparation for making an apron. <ul style="list-style-type: none"> - Skirt piece - Front bodice. - Neck band. - Waistband. - Pocket. - Frill. 	Any 4 x ½ = (2 marks)

SECTION B (20marks)

22. (a)	Procedure for cleaning a plain wooden food storage cupboard. <ul style="list-style-type: none"> - Remove (½) all foods from the storage cupboard. - Remove (½) any stains from the door, wall and shelves using warm soapy water (½). - Dust (½) the outside surface, paying attention to the handles. - Dust and then scrub (½) the shelves using warm soapy water (½) and a soft brush or cloth (½). - Rinse thoroughly (½) using a cloth wrung out of warm water (½) until all soapy water has been completely removed. - Line (½) the shelves with clean paper or lining material. 	10 x ½ = (5 marks)
(b)	Procedure for weekly cleaning a cement pit latrine floor. <ul style="list-style-type: none"> - High dust (½) to remove cobwebs. - Remove (½) the latrine cover, clean by scrubbing (½) it using hot soapy water (½) and a toilet scrubbing brush (½). - Rinse (½) in hot (½) then cold (½) water into which a disinfectant (½) has been added. - Dry (½) thoroughly. - Scrub (½) the floor using a scrubbing brush and hot soapy water (½). - Rinse (½) with hot (½) and then cold (½) water to remove dirt and soap. - Dry thoroughly (½) with a clean floor cloth. 	16 x ½ = 8 marks

(c)	<p>Procedure for washing her woollen sweater.</p> <ul style="list-style-type: none"> - Frisk ($\frac{1}{2}$) the pockets. - Take the measurements ($\frac{1}{2}$). - Using warm soapy water ($\frac{1}{2}$), wash the sweater by kneading and squeezing method ($\frac{1}{2}$) without lifting ($\frac{1}{2}$) the sweater out of the water. - Rinse ($\frac{1}{2}$) in warm water severally to remove the soap. - Squeeze ($\frac{1}{2}$) out as much water as possible, roll ($\frac{1}{2}$) the sweater in a clean dry towel ($\frac{1}{2}$) and squeeze ($\frac{1}{2}$) further to remove excess water. - Lay ($\frac{1}{2}$) the sweater on a flat surface ($\frac{1}{2}$) under the shade ($\frac{1}{2}$) to dry. - Confirm the size and shape ($\frac{1}{2}$). 	<p>14 x $\frac{1}{2}$ = (7 marks)</p>
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SECTION C (40 MARKS)

23. (a)	<p>Advantages of planning meals in a family.</p> <ul style="list-style-type: none"> - Balanced to meet the dietary requirements of all the family members. - Presented and served attractively to stimulate appetite and enjoyment. - Adequate for the family members to get satisfied. - Meet the individual preferences to encourage them to eat. - Enables ingredients to be bought in bulk thus saving cost. 	<p>Any 3 x 2 = (6 marks)</p>
(b)	<p>General rules to be observed when drying foods ready for storage.</p> <ul style="list-style-type: none"> - Use clean hands, equipment and water. This will prevent any form of contamination of the foods. - Use fresh foods that are in good condition. - When sun drying foods, cover the food with mesh or netting material to prevent dust, flies, insects or pests from contaminating it. - Do not dry foods directly on the ground. Instead spread them on a clean surface or material. - Store dried foods in tightly closed containers away from pests, dirt and moisture. 	<p>Any 4 x 2 = (8 marks)</p>
(c)	<p>Ways of advertising a new recipe developed.</p> <ul style="list-style-type: none"> - Social media – social sites like facebook, twitter, Instagram, whatsapp can be used to advertise the new recipe. - Word of mouth – the recipe can be given to students, teachers, family to advertise by word of mouth. - Print media – the recipe can be advertised in newspapers, school magazines, journals, brochures and leaflets. - Science fairs – the recipe can be advertised during school science fairs. - Electronic media – the recipe can be advertised through the television and radio. 	<p>Any 3 x 2 = (6 marks)</p>

24. (a)	Problems resulting from the use of hard water in washing. <ul style="list-style-type: none"> (i) Using hard water is wasteful as it uses too much soap, it also consumes a lot of time and energy to lather. (ii) The hard water can cause blockage of pipes (iii) Since it forms scum when rinsing, it can cause discoloration in white garments. (iv) The whitish particles from the scum get lodged on the dark coloured clothes. (v) Causes discoloration in the kettles and boilers used in boiling water. 	Any 3 x 2 = (6 marks)
(b)	Rules to be observed when patching a garment. <ul style="list-style-type: none"> - The patch should lie flat to create harmony with the rest of the garment. - The patch should take the shape of the hole or the worn out area. - The patch should match the grain of the fabric. - The patch should be inconspicuous on the garment unless it is meant to have a decorative effect. - The patch must be strongly fixed to avoid tearing off from the garment. - The fabric for patching should match that of the garment in colour, weight, age and fibre content. 	Any 4 x 2 = (8 marks)
(c)	Ways in which a faced slit opening can be made decoratively. By:- <ul style="list-style-type: none"> - Stitching a zip fastener between the garment and the facing. - Edge stitching the opening and closing it with button and loop. - Shaping the outer edge of facing and using it on the right side of the garments. - Using a facing with contrasting colours on the right side of garments, turning the facing to the right side and catching it down with decorative stitches. - Turning facing to the right side and edge stitching. - Turning facing to the wrong side and stitching from the right side particularly with a contrasting colour of thread. 	Any 3 x 2 = (6 marks)
25. (a)	Disadvantages of using charcoal as a fuel. <ul style="list-style-type: none"> - It leads to air pollution. - It is not easy to keep clean when using charcoal. - Requires a lot of storage space and makes the storage space dirty. - The carbon monoxide produced during burning can cause suffocation and finally death if the room is not well aerated. 	Any 3 x 2 = (6 marks)

(b)	<p>Guidelines that ensure that the nutritional needs of a sick person at home are met.</p> <ul style="list-style-type: none"> - Adherence to the doctor's prescribed diet. - Give a balanced diet that includes a lot of fluids. - Serve the food attractively in small portions to maintain the appetite and thus ensure enough nutrients are taken in. - Serve easily digestible foods since the digestive system is weak. This ensures that they get maximum nutrients from the food eaten. - Food should be tender for ease of chewing and swallowing to ensure the sick person gets adequate nutrients. 	Any 3 x 2 = (6 marks)
(c)	<p>Factors affecting normal foetal development.</p> <ul style="list-style-type: none"> - Nutrition – when a mother does not get enough of the right nutrients, this may cause mental and physical retardation of the foetus. - HIV/AIDS – when a mother is infected with HIV. This may be passed onto the baby rendering it to have a weak immune system and consequently affect normal development. - Drugs and substance abuse may lead to underweight and miscarriage of the baby. - German measles may cause deformity, when it occurs during the first three months of pregnancy. - Trauma may cause distress to the mother and cause miscarriage. 	Any 4 x 2 = (8 marks)