4.14 HOME SCIENCE (441)

4.14.1 Home Science Paper 1 (441/1)

SECTION A (40 MARKS)

1.	**Methods of steaming food** (i) Plate method (ii) Bowl steaming method (iii) Using a food steamer (iv) Using a colander	2 x ½ = (1 mark)
2.	**Meaning of balanced diet** Is the kind of food and drink/meal that contains the proper proportions of carbohydrates, fats, proteins, vitamins, minerals and water necessary to maintain good health/ for the body to function properly.	(2 marks)
3.	**Functions of kitchen tools;** (a) A meat hammer is used for beating steak to make it tender for frying and roasting. (b) A colander is used for draining foods.	(1 mark) (1 mark)
4.	**Advantages of roasting foods;** (a) It is a quick method of cooking. (b) Makes food attractive and appetising. (c) Makes food easily digested. (d) Makes food tasty.	Any 3 x 1 = (3 marks)
5.	**Difference between garnishes and decorations;** Garnishes are foods that are placed on savoury meals to make them colourful, attractive and interesting while decorations are foods/substances placed/added to sweet dishes to make them look colourful and attractive.	Well differentiated = (2 marks)
6.	**Qualities of a well-groomed person** (a) Is Clean (b) Is healthy (c) Dresses well (d) Practices proper etiquette	Any 3 x 1 = (3 marks)
7.	**Importance of weaning a baby gradually** It; (a) gives time for the baby to get used to the new food (b) allows time to observe any reactions/allergies to the new food (c) dresses well (d) practices proper etiquette	Any 2 x 1 = (2 marks)
8.	**Difference between a scald and a burn** A burn is caused by dry heat such as fire, electrical objects or hot metals while a scald is caused by moist heat such as hot liquids, steam or hot air.	Well differentiated = (2 marks)

9.	**Factors that determine the choice of clothes** (a) Personal taste (b) Physical characteristics (c) Occasion (d) Money available	Any 2 x 1 = (2 marks)
10.	**Factors that determine the method of lighting in a house** (a) Purpose: - the use of the room. (b) Size of the room. (c) Colour scheme of the walls. (d) Colour of furnishings.	Any 2 x 1 = (2 marks)
11.	**Description of manhole** A manhole is a concrete pit which serves as the meeting point for two or more drains carrying waste water from bathrooms, kitchens, toilets.	Well described = (2 marks)
12.	**Definition of the term consumer** A consumer is a person who chooses, purchases, uses and maintains goods and services to satisfy his/her needs and wants.	(1 mark)
13.	**Ways in which advertisements may affect the consumer negatively** (a) Some advertisements may be deceptive and mislead the consumer. (b) Some advertisements may go against cultural values in their message content and presentation. (c) Some may lead to impulse buying.	2 x 1 = (2 marks)
14.	**Types of repairs done on clothes** (a) Darning (b) Patching (c) Fixing hanging hems/gaping hems (d) Replacement of fasteners (e) Reinforcing of buttonholes	4 x ½ = (2 marks)
15.	**Roles that detergents play in the laundering of fabrics** (a) They lower the surface tension of the water thus increasing the wetting power of water and penetration into the fibre. (b) They emulsify grease/dirt and hold it in suspension to facilitate its removal by the water. (c) They surround the dirt particles which have been dislodged from the fabric to prevent re-depositing onto the fabric.	Any 2 x 1 = (2 marks)
16.	**Types of temporary stitches** (i) Diagonal tacking (basting) (ii) Thread marking (iii) Tailor's tacking	

	(iv) Even tacking (v) Long and short tacking	Any 4 x ½ = (2 marks)
17.	**Methods used in controlling fullness** (i) Shirring (ii) Use of tucks (iii) Pleats (iv) Gathers (v) Smocking (vi) Use of darts (vii) Easing	Any 4 x ½ = (2 marks)
18.	**Areas on a garment where interfacings are used** (i) Collars (ii) Waist band (iii) Cuffs (iv) Facings (v) Belts	Any 4 x ½ = (2 marks)
19.	**Uses of embroidery scissors** For: (i) Cutting embroidery threads (ii) Snipping edges (iii) Cutting buttonholes	Any 2 x 1 = (2 marks)
20.	**Properties of woollen fibre that make it suitable for making carpets** (i) Has natural crimp making it warm. (ii) Has high elasticity and resilience making it wrinkle – resistant. (iii) Is flame resistant. (iv) Is highly resistant to static electricity. (v) Readily absorbs sound.	Any 2 x 1 =(2 marks)

SECTION B (20marks)

21. (a)	**Procedure for laundering a silk dress.** - Wash by kneading and squeezing (½) using warm water (½) and a mild detergent (½) - Rub (½) the heavily soiled parts (½) on the palms of the hands - Rinse in warm water (½) - Final rinse in cold water (½) - Add methylated spirit (½) to final rinse (½) - Squeeze out excess water (½) - Remove moisture by folding the dress on a towel (½) - Press using a moderately warm iron(½) on the wrong side (½) - Air to dry (½) - Fold (½) and store (½)	16 x ½ = (8 marks)
(b)	**Thorough cleaning a leather handbag with a polyester lining** - Protect the work surface (½) with old newspaper (½) or other material. - Empty (½) the handbag of its contents. - Brush the top (½) of the handbag. - Wipe (½) the polyester lining (½) using a cloth wrung (½) out of warm (½) soapy (½) water. - Wipe (½) the lining with a clean cloth wrung (½) out of clean (½) warm water (½). - Wipe (½) the handbag with a damp cloth. - Apply cream (½) sparingly (½) and evenly (½) using a clean rag (½) - Leave for a few minutes (½) for the cream to set. - Rub (½) firmly with a clean rag (½). - Use a clean fluffy (½) cloth to buff (½) the handbag. - Stuff (½) before storing.	24 x ½ = (12 marks)

SECTION C (40 MARKS)

22. (a)	**Reasons why impulse buying should be discouraged.** A consumer may; (i) Buy things they do not really need. (ii) Not get value for money since there is no time to do window shopping. (iii) End up not following his/her budget. (iv) Buy expired goods that are sometimes put on sale.	Any 3 x 2 = (6 marks)
(b)	**Principles of food preservation** (i) Application of heat This is heating foods to a high temperature in order to kill the microorganisms that would otherwise cause food spoilage. Bacteria, yeast, moulds and natural enzymes are destroyed by heat. (ii) Removal of water Water in foods is removed or reduced to inhibit or inactivate the enzymes and microorganisms which cause food spoilage. This is done through drying and dehydration. (iii) Exclusion of oxygen Air is removed during bottling and canning. Microorganisms need air to grow and therefore with exclusion of air they are destroyed. (iv) Freezing Low temperatures inhibit/inactivate the growth of enzymes and microorganisms thus deterring any further spoilage. (v) Addition of sugar, salt, vinegar or chemical preservatives A high concentration of sugar, salt, acids and chemical preservatives inhibit the growth of microorganisms that are responsible for food deterioration and help food stay long while fresh.	Any 3 x 2 = (6 marks)
(c)	**Factors that determine the dietary needs of individual family members.** **(i) State of health** The nutritional needs of those who are ill will differ from those who are enjoying good health. The specific diet will depend on the nature of illness however they will	

	require more of the protective and body-building foods and less of energy foods. **(ii) Age** All growing babies, children, adolescents need higher proportions of protein, protective and energy-giving foods. The elderly whose body activity has decreased need relatively more proteins and protective foods than carbohydrates, they may require more dietary fibre and vitamin D. **(iii) Occupation** The type of work one is engaged in will determine the nutritional requirements, those doing manual work will require more energy giving foods. **(iv) The size of the body** Large bodies will require more energy giving foods to maintain vital processes. **(v) Gender** Men require more energy than women because of their body structure.	Any 4 x 2 = (8 marks)
23. (a)	**Ways in which a facing can be used to create a decorative effect are:** (i) Shaping the edges in a decorative way such as scalloping. (ii) Cutting the facing on a different grain from that of the garment section. (iii) Turning the facing to the right side of the garment and then caught down with a decorative stitch. (iv) Using a different colour of fabric from that of the garment. (v) Using fabrics of different texture.	Any 3 x 2 = (6 marks)
(b)	**Rules to observe when removing stains from a garment** (i) Remove stains when they are still fresh. Stains will get fixed with time and therefore become difficult to remove. (ii) Identify the kind of stain and type of fabric affected in order to use a suitable stain remover. (iii) If type of stain is unknown, start with milder stain	

	removal methods such as soaking according to fabric, then later use solutions of milder reagents. (iv) Once the stain has been removed, rinse the article well to remove traces of the reagent. (v) Work from outside towards the inside to avoid spreading the stain.	Any 4 x 2 = (8 marks)
(c)	**Remedies for machine faults** **(i) Needle breaking** - Fix the needle in the correct position firmly. - Replace the needles as it may have been defective. - Check to ensure that the size of needle is appropriate for thickness and density of fabric. - Check to ensure that the pressor foot is inserted correctly. - Avoid sewing over pins.	Any 3 x 1 = (3 marks)
	(ii) Fabric puckering; - Lower the thread tension especially for fine fabrics. - Lower the pressor foot pressure. - Stretch the fabric under the pressor foot manually. - In case of multiple stitching sew in one direction only. - Reduce the sewing speed.	Any 3 x 1 = (3 marks)
24.	**Functioning of:**	
(a)	**(i) Electric Air Fans** These are devices that are fitted with rotary fan blades and operated using electricity. When the fan blades are set into rotation the fan sets the air inside a room into currents.	(2 marks)
	(ii) Air conditioner This is a device that absorbs stale air from the inside of a room and replaces it with fresh cooled air from the outside of a room.	(2 marks)
(b)	**Benefits of living in a well ventilated house:** (i) The working atmosphere is good since all the surplus heat from people and machinery is removed. (ii) All odours are removed from the room. (iii) Humidity is removed from the room making it fresh and thus improving people's concentration.	Any 4 x 2 = (8 marks)

	(iv)	Air pollutants are removed from the room.	
	(v)	Allows free circulation of air thus preventing any spread of airborne diseases such as influenza, tuberculosis.	
(c)	**Ways in which cosmetics can be misused**		
	(i)	Sharing cosmetics as this could lead to contamination.	
	(ii)	Using cosmetics that have changed colour, smell or texture.	
	(iii)	Not following the instructions on the use.	
	(iv)	Not washing hands before applying cosmetics as this could lead to infection.	Any 4 x 2 = (8 marks)
	(v)	Not storing the cosmetics properly, exposing them to heat and sunlight which may alter their composition and effectiveness.	
	(vi)	Using cosmetics that do not have ingredient declaration. Certain ingredients may cause allergies or dangerous effects.	
	(vii)	Using on dirty skin over old make up.	