Name……………………………………………………. Index No………………..……..

 Candidate’s sign……………….

 Date…………………………….

441/ 1

HOME SCIENCE

(THEORY)

Paper 1

March/April, 2020

2 ½ Hours

**POST EVALUATION EXAMINATION**

**Kenya Certificate of Secondary Education**

441/ 1

HOME SCIENCE

(THEORY)

Paper 1

March/April, 2020

2 ½ Hours

***Instructions to candidates***

1. *Write your name and index number in the spaces provided above.*
2. *Sign and write the date of the examination in the space provided*
3. *This paper consists of three sections A, B and C.*
4. *Answer all questions in Section A and B and any TWO questions from section C*
5. *Answers to all questions must be written in this booklet*
6. *This paper consists of 10 printed pages.*
7. *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** |  |

**MARKING SCHEME SECTION A: (40 MARKS)**

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

1. Give **two** measuring tools in needlework. (1 mark)

  **-Tape measure**

 **-Measuring gauge**

 **-Metre stick/rule**

2. Point out the major difference of cotton and wool viewed under a microscope (1 mark)

 **Cotton is seen flat, twisted ribbon like, while wool is seen overlapping with irregular scales on**

 **the longitudinal view.**

 **Cotton is kidney shaped, while wool is circular/round on the cross-sectional view**

3. Explain the term dredge as used in flour mixtures

 **To sprinkle lightly with powder using a perforated container (flour, salt, pepper, castor, sugar)** (1 mark)

4. Give **two** uses of salt in laundry work (1 mark)

 **Fix colour in loose coloured clothes**

 **Dissolve mucus and blood stains**

 **Disinfect**

 **Prevent fruits stains from spreading**

5. What is consumer education (1mark)

 **It is** **information that makes people aware of goods and services** **available and their rights as**

 **Consumers to avoid being exploited.**

6. Outline two major signs of goiter (1 mark)

 **-Enlargement of the thyroid gland**

 **-Irritability**

 **-Weight loss**

 **-Change of eating habits** (1 mark)

7. Suggest **two** other methods of storing clothes and household linen apart from folding **=--**

 **-hanging**

 **-rolling** (1 mark)

8. State **two** factors that make biogas an unpopular fuel.

 **-high cost of installation**

 **-Requires a large space for setting up**

 **-Has a bad smell** (1 mark)

9. Give **two** reasons for serving water in a meal (1 mark)

 **-Aids in the digestion**

 **--Management of choking**

 **-Clear throat**

10. Describe how you would store maize flour in the kitchen (1 mark)

 **-Store in covered clean dry container with a well-fitting lid.**

 **-Container should be put on a raised ladder in a cool dry place**

11. Outline **two** advantages of using a potato peeler over a kitchen knife. (1 mark)

 **-It does not cut deep into the potato or carrot hence minimize waste.**

 **-Lessens the risk of cutting one’s fingers**

 **-Its fast, saves on time**

12. Give **two** suggestions for painting your ceiling boards with a light colour. (1 mark)

 **-To reflect light more into the house**

 **-To improve its appearance**

 **-Give an illusion of increased heights of the ceiling**

 **-To give a warm effect**

13. Elastic fibres are used to make foundation garments. Give **two** examples of such garments (1 mark)

 **-Cossets**

 **-Bikers**

 **-Brassieres**

 **-Support hosiery**

14. Note down **two** effects of deep-frying protein foods without coating (1 mark)

 **-Burnt products**

 **-Loss of food extracts**

 **-Oil sogged food**

 **-Broken or flacking food**

15. State **two** advantages of choosing boiling as a method of cooking (1 mark)

 -**It softens tough foods**

 **-It does not need a lot of skills**

 **-The liquid can be used to make soup/sauce**

 **-It is a simple method that requires little attention**

16. Name **two** types of seams that are stitched twice. (1 mark)

 **-Machine fell seam /machine doubled stitched seam**

 **-French seam**

 **-Rill and fell**

17. Explain how preservation is achieved through smoking (1 mark)

 **-Removal of water**

 **-Formation of protected layer**

18. Outline **two** ways of achieving shirring in disposal of fullness (1 mark)

 **-Use running stitches**

 **-Use shirring /elastic threads**

 **-Use longest machine stitches**

19. Give **two** disadvantages of prolonged use of convenience foods (1 mark)

 **-Addictive in nature**

 **–Preservation may be hazardous to health**

20. List **two** ways of saving time and energy during cooking. (1 mark)

 **-Dove tail**

 **-Correct sequencing**

 **- use of a pressure cooker**

 **-Covering food while cooking**

 **-Soaking dry grains**

21. Describe how to take hip measurements (1 mark)

 **Measure around the fullest part of hip with two fingers in between tape measure and**

 **Body.**

22. Point out **two** non-decorative patches in repair of clothes and household article (1 mark)

 -**Calico patch**

 **-Print patch**

23. Define home science as a competence-based subject. (1 mark)

 **Study of household management, which imparts knowledge, skills and attitude to an**

 **individual for the improvement on the quality of life.**

24. Mary is under taking her teaching practice in a far-off county. State two most suitable methods of acquiring shelter before she resumes her studies. (1 mark)

 -**Renting**

 **-Living in the employer’s house**

25. Outline **two** possible causes of decreased demand of free dresses by expectant mothers. (1 mark)

 **-Increased use of elastofibre which can stretch accordingly.**

 **-Free dresses are viewed** **as old fashioned**

 **-Due to the upcoming of alternative attire e.g. mothers’ trousers.**

 **-Due to economic reasons i.e the need to use the garment after pregnancy**

26. What is rinsing as used in laundry work (1 mark)

 **It is the removal of dirt and soap from washed articles using clean warm water**

27. State **two** social reasons for wearing shoes (1 mark)

 -**Identity**

 **-Uniformity**

 **-Enhance appearance**

28. Point out **two** uses of temporary stitches in clothing construction (1 mark)

 -**Transfer pattern marking onto materials**

 **-Hold seams together before permanent stitch**

 **-Guide machine stitches**

 **-Holds parts together e.g. basting on pleats, collars, pockets**

29. Name **two** special treatment done before final rinsing (1 mark)

 -**Stain removal**

 **-Disinfecting by boiling, chemical disinfectants**

30. State **two** disadvantages of using powdered formulae to feed the baby (1 mark)

 -**Chances of contamination in the mixing of bottles if not sterile**

 **-They are very expensive**

31. Give **two** factors that determine the length of a skirt (1 mark)

 -**Fashion**

 **-Moral values**

 **-Occasion**

 **-Personal Preference-Height of the wearer**

32. Give **two** sources of natural food poisoning (1 mark)

 -**Grains stored in damp condition producing aflatoxin**

 **-Poisonous parts of food (cassava)**

33. List **two** qualities of a good girls’ teddy bear (1 mark)

 **-Should be attractive in colour**

 **-Should be easy to clean**

 **-Should be well designed**

 **-Should be of appropriate size depending on the age of the child**

 **-should be light in weight**

34. State **two** methods of attaching collars (1 mark)

 **-Use of crossway strip or binding.**

 **-Attaching by sandwiching it between the facings/revers/**

 **-Self-neatening method**

35. Knitting of family clothing has gradually gone down. Suggest the possible reasons for this

 (1 mark)

 **-Time factors, knitting is time consuming**

 **-Technology-knitting machines are available in the market**

 **-Availability of cheap alternatives/second hand sweaters.**

 **-Change in life style, women have gone professional**

36. Differentiate between partial weaning and natural weaning (1 mark)

 **Partial weaning is when the baby is not ready to stop breastfeeding entirely but the**

 **mother allows the baby to breastfeeding once a day natural weaning is allowing the**

 **baby to outgrow breastfeeding entirely on their own.**

37 Outline **two** uses of interfacing (1 mark)

 -**Increasing crease resistance**

 **-Obtaining a good knife edge**

 **-Prevent stretching or sagging**

 **-Stiffening to add firmness**

 **-To give body or shape**

 **-To add warmth**

38. Identify the nutritional disorder known as the ‘living skeleton’. Give a reason why its referred to as so. (1 mark)

 **Marasmus-The victim becomes extremely wasted due to lack of enough of all food**

 **Nutrients.**

39. Give **two** reasons why your home science teacher discourages soaking of wooden handled knives. (1 mark)

 **-Wood will be discoloured**

 **-Wood will warp**

 **-Hinges at the joints may loosen**

 **-Can cause cut**

 **-Some knives rust**

 **-Handles may rot.**

40. Name **two** components of a two-course meal. (1 mark)

 **-Appetizer/dessert**

 **-Main meal**

 **SECTION B: (20 MARKS)**

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

41. Today is your family cleaning day;

1. Treat the temporary hard water with solid particles and store it in readiness for cleaning  (3 marks)
2. Use the treated water to;
3. Thorough clean your elastofibre inner wear (5 marks)
4. Thorough clean the laminated in-built table in your room (6 marks)
5. Weekly clean the stained melamine cup (6 marks)

 **SECTION C: (40 MARKS)**

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

42.a) Signs of a woman who is likely to have twins

**-Belly grows faster and womb larger**

**-Gains weight faster than normal**

**-You can feel three or four large objects; head, buttocks**

**-The doctor can hear two heartbeats other than the mothers** (4marks)

b) Negative effects of advertisement to the consumer (4 marks)

 - **Deceptive advertisements mislead the consumer due to the urge to sell**

 **-Goes against the values of the society**

**-Leads to wrong prioritization-goods and service bought do not satisfy most important needs**

**-Inferior quality of goods and services-products bought does not perform all the expectation of the consumer**

**-Can lead to impulse buying-buying something one had not planned to buy**

**-Can lead to overspending-buying beyond ones means**

**-Goods are bought before comparing prices**

c) Giving a reason, mention **four** blood tests carried out in an antenatal clinic (4 marks)

**-Rhesus factor-to check if the rhesus factor is negative or positive. If mothers rhesus factor is negative the problem is dealt with by the doctors**

**-Haemoglobin level-to check if the mother is anemic or normal. If anemic ,iron and folic acid tablets and dietary advice is given**

**-Rubella or measles-to check if she is immune to rubella or measles**

**-Blood group-to determine blood group whether AB, O, A, B**

**-HIV testing- to understand the implication of a positive or negative result on the baby.**

d) Mention **four** ways through which an individual may suffer from anaemia. (4 marks)

**-Excess menstruation**

**-Injury with excessive bleeding**

**-Child birth**

**-Late weaning**

**-Poor balanced diet**

**-Chronic malaria/hookworm infection**

**-Lack of vitamin B12**

**-Deformed red blood cells**

e) Describe **four** methods used to transfer pattern markings

**-Use of tailor’s tacks-make a double stitch through the pattern mark and fabric.**

 **Pull leaving 2 cm thread at the end and leave a loop before the next stitch.**

 **Cut at the top to separate the loops**

**-Use of a tracing wheel and carbon papers-place carbon paper between the pattern piece with the waxed side of the fabric. Use a tracing wheel to trace out the mark.**

**-Using a tailoring chalk-chalk of contrasting colour is used to transfer the pattern on the fabric**

**-Thread marking-work out a series of loop stitches on the stitching line using double thread. Cut the loops at the top. Separate the two layers to get tuffs of thread.** (4 marks)

43.a) You are giving a talk to ‘mothers union’ on the care of invalids. Give **four** points you would include on preventive measures (4 marks)

-**Wear protective clothing**

**-Personal effects be soaked in water with disinfectant**

**-Personal effects should be washed separately**

**-Attendants hands should be washed in water and disinfectant**

b) Explain **four** importance of preparing a shopping list before going for shopping (4 marks)

-**To ensure nothing important is forgotten.**

**-Items are put in orders of priority to ensure that the important items are catered for first.**

**-Help one to stay within list of items intended to buy**

**-Reduce chances of overspending-buying beyond ones means/Sticks within budget**

**-Reduce impulse buying –buying goods one had not planned to buy**

c) Identify **four** ways in which measles can be managed in infants. (6 marks) **–Isolate the child**

**-If high fever use a damp cloth wrung out of warm water to dab to regulate temperatures**

**-Bed rest**

**-Give plenty of fluids to prevent dehydration**

**-Clean the eyes with clean saline water**

**-Keep the child away from very strong lights**

**-Consult doctors to avoid complications**

d) Give **four** benefits of vitamin B2 in the human body (4 marks)

**-Maintains a healthy skin**

**-Helps body use carbon dioxide and proteins**

**-Promotes growth**

**-Maintains good appetite**

**-Prevents formation of cracks and sores in skin and corners of the mouth**

**-Prevent tongue from becoming sore**

e) Balance points are matched with other similar ones. Point out **four** areas where they are likely to be put on a garment (4 marks)

-**Where two seams meet**

**-Where gathers or easing should be worked**

**-Where the sleeve top and shoulder seam meet**

44.a) Outline **four** factors to bear in mind when picking flowers to arrange (4 marks)

**-Pick according to arrangement**

**-Pick in the morning or evening –coolest time of the day/fresh**

**-Pick and put in cold water awaiting arrangements**

**-Pick enough greens/foliage to cool down colours.**

 b) Explain the following terms as used in consumer education; (4 marks)

(i) Fixed expenditure-**expenses which are a must and unchangeable (bills, school, fees, loans)**

 (ii)Consumer exploitation –**a consumer buys goods and services but does not achieve value for his money.**

c)State **four** principles used when administering first Aid to a victim of poison (4 marks)

 **-If poison is acidic give an alkaline drink to neutralize**

**-If poison is alkaline give an acidic fruit juice**

**-If poison is not corrosive, induce vomiting**

**-If poison is corrosive don’t induce vomiting**

**-Victims to vomit bending to prevent the vomiting getting into the lungs**

 d) State and explain **four** nutrient conservation measures taken during food preparation

 before cooking (4 marks)

 -**Do not soak vegetables and fruits in washing water because it dissolves nutrients**

 **-Wash fruits in cold water because hot water destroys heat sensitive vitamins**

 **-Wash the vegetables before chopping/cutting to avoid loss of vitamins and nutrients**

 **Which dissolves in water**

**-Buy vegetables when they are fresh**

**-Shred/cut/chop before cooking because exposing for long periods causes oxidation of vitamins**

**-Avoid buying large quantities of vegetables and fruits that requires storage as it causes nutrients loss**

**-Whenever possible take fruits in their raw form because there are more nutritious.**

 e) Use the pattern markings below to describe the working of an invested pleat (5 marks)

 Include a clearly labelled diagram.

 **1 2 3 4 5 6 7**

|  |  |  |  |  |  |
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