

FORM 3 EXAMINATIONS
HOME SCIENCE
PAPER 1
THEORY

SECTION A (40MKS)

1. - U-shape kitchen plan
 - L- shape kitchen plan
 - One-wall kitchen plan
 - Corridor kitchen plan
2. - Water bodies around the compound, such as dams, swimming pools should be fenced.
 - Children should not be allowed to swim alone
 - Bathtubs should not be left unplugged
 - Water containers e.g. buckets, drums should be covered
 - Water taps should not be left running
3. - Measuring tools/ equipment - Cutting equipment
 - Marking equipment - Pressing equipment
 - Serving equipment - Miscellaneous equipment
4. - Overcasting - Loop stitching
 - Herring stitches - Hemming stitches
 - Slip stitched hemming - Whipping
 - Decorative running stitches
5. - Waist
 - Bust
 - Nape
 - Shoulder length
 - Inner trouser length
 - Chest width
 - Hips
 - Skirt length
 - Outer arm length
 - Crotch depth
6. - Fluids for milk production
 - Calcium and phosphorous for teeth and bone development
 - Iron to replace blood lost during delivery
7. - Rinsing the garments in water to which fabric conditioner her been added
 - Wearing a under garment below it
8. - Allow for independence by encouraging a child to do things by itself.
 - Providing plenty of room or space which enables a child to move about and discover things
 - Parents and older children should take some time each day to play with small children
 - Dressing the child in clothing which does not restrict playing
9. - **Difference**
 - Rickets occur in children while ostemalacia occurs in adults
 - Bones get deformed in rickets while bones get weak and fragile in oesteomalacia
 - **Similarity**
 - Both are caused by lack of Vitamin D, calcium and phosphorous in the body
10. - So that one may know the amount of fabric required
 - So that one may know the type of fabric required and other serving notions
11. -
 (i) Galvanised iron - bricket, karais, cans, pails
 (ii) Cast iron - iron box (charcoal iron)
12. (i) -Breaking of thread – incorrect insertion of needle
 -Wrong threading, too tight tension
 -Blunt needle, bent needle
 (ii) -Needle breaking - Needle bent, machining over pins, needle too fine for the work, needle not firmly fixed in place, fabric too thick for the needle
 (iii) -Looping of stitches – incorrect threading
 -Upper and lower tension too loose
 (iv) -Puckering of the fabric – Needle too coarse for the fabric
 -Stitches too long in case of very fine fabric
13. (i) The child may become malnourished, because the breast milk does not adequately cater for its nutritional requirements

(ii) Its is more difficult to introduce new foods since the baby is accustomed to milk

14. **Advantages**

- Breast milk contains all the necessary nutrients that are essential for the baby's growth and development
- Breast milk is always at the right temperature. It does not need any warming
- Breast milk is clean and free from contamination
- Breast milk is available all the time since does not need to be purchased and the baby can have it on demand.

Limitation

- Work conditions which may make the mother to be unavailable to breast feed the baby
- Health condition e.g. HIV if the mother is HIV positive may not breastfeed so as not to transmit the disease to the baby

15. Define the following

- (i) **vaccine** - A preparation of weakened micro organisms/ either bacteria or viruses which when introduced into the body causes the body to produce antibodies
- (ii) **antibody** - substances produced by the body after the introduction of a vaccine that protects the individual against the disease caused by the micro-organisms which were used to produce the vaccine

16. - The mother may develop complication which a traditional birth attendant cannot handle at home
- The baby may be born with complication which require advanced attention not available at home.

17. - Sweeping

- Dusting
- Wiping
- Suction

SECTION B (20MKS) COMPULSORY

18. -

- a) - Cover ½ working area with newspapers
- Remove mud ½ if any with a blunt objects
- Dust ½ all over with a dry cloth
- Wipe inside ½ and outside ½ with a cloth wrung in warm soapy water ½
- Dry ½ with a dry duster / cloth ½
- Leave under shade ½ to dry
- Apply polish ½ using circular movement with a dry cloth / shoe brush
- Leave ½ for a while before shining
- Shine ½ using a dry brush / fluffy cloth ½
- Stuff ½ for storage
- Stone them ½ appropriately
- Clean and store ½ cleaning equipment / materials (16 x ½ = 8mks)

b) **Dry cleaning headgear**

- Collect ½ all the cleaning equipment and materials
- Work in a well ventilated place ½ away from fire
- Immerse ½ the head gear in the liquid knead and squeeze ½ until clean
- Squeeze ½ out as much of the liquid as possible
- Dry ½ in an airy place
- Press ½ air ½ fold store
- Clean and store cleaning equipment and materials (8 x ½ = 4mks)

c) **Cleaning an acrylic sweater**

- Collect ½ all of the materials to be used
- Mend appropriately when necessary ½
- Soak ½ in cold water for a short time if hearly soiled ½
- Wash ½ in warm detergent water ½ by kneading and squeezing ½ method
- Rinse thoroughly ½ in warm water ½ to remove dirt and soap them finally in cold ½ water to freshen the fabric
- A fabric conditioner may be added in the final rinsing water to prevent generation of static electricity in the fabric during use ½
- Drip dry in shade ½
- Finish by ironing ½ using a warm iron ½ on the W.S to avoid shiny marks ½
- Air ½ to dry completely
- Store appropriately ½ in a clean dry place, well folded ½ (16 x ½ = 18 mks)

SECTION C (40MKS)

Answer any two questions from this section

19. (a) -BCG vaccine given during 1st week of birth to protect against tuberculosis
- Oral polio vaccine (OPV) given to protect child against poliomyelitis – first dose given within the 1st 2 weeks
- Anti measles – vaccine given 9 months
- Diphtheria / tetanus/ hepatitis B haemophilis influenza type B expected to protect those diseases.

-1st dose given after 6 weeks second dose after 10 weeks and the third after 14 weeks

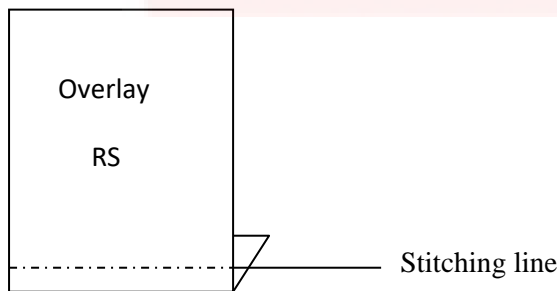
- (b) - Size of the tear – for a large tear, a patch will be stronger than darn
 - Weight of the fabric – darning would be more suitable on heavy fabrics than patching which would create bulky sections
 - Method of fabric construction – knitted fabrics would best be darned while woven fabrics can take any method
 - Cleaning method – items require friction method when washing are best patched
 - Effect desired – a decorative patch may be used to create interest while a calico patch may be used where strength is needed
 - Position of the tear – a tear on a collar would not be mended using same method as one next to a seam
 - Type of garment / article – repair of an undergarment is done differently from an outer garment
 (4 x 1 = 4mks)

- (c) - Meals should be balanced
 - Meals should be served punctually
 - Food should be prepared, cooked and served hygienically
 - Food should be palatable and appetizing
 - Food should be served attractively
 - Give small amounts at a time
 - Give hot foods hot and cold foods cold
 - Food should be soft and easy to digest
 - Avoid flavouring and smells in food
 (2 x 4 = 8mks)

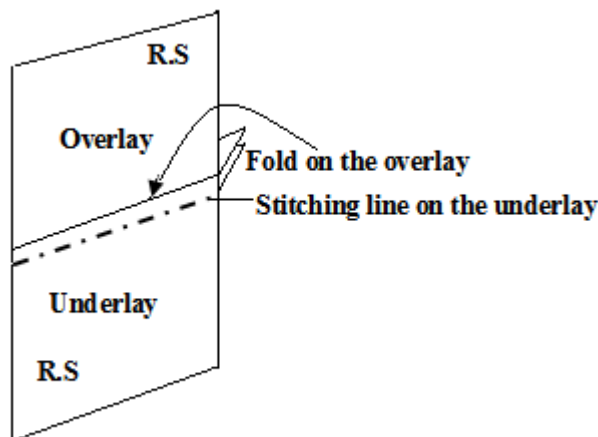
20. (a) The tucks are made on straight grain of fabric for a good hang
 - There is equal distance between one tuck and another which give balance
 - Stitching lines are straight for beauty and neatness
 - Each group of tucks are pressed towards one direction for uniformity
 - The tucks are pressed flat at seam line to give a smooth finish
 - The depth of each tuck is even throughout for neatness and flatness
 (2 x 3 = 6mks)

- (b) - Easy to clean
 - Big enough not to swallow
 - Washable
 - Strong and firmly fixed
 - Unpainted
 - Have no sharp edges
 - Suitable to child's age
 (1 x 6 = 6mks)

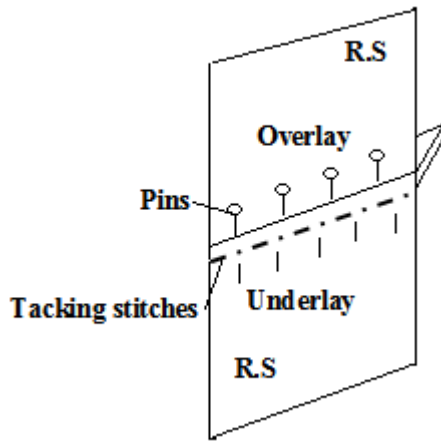
- (c) Fold along the stitching line of the overlay to the W.S



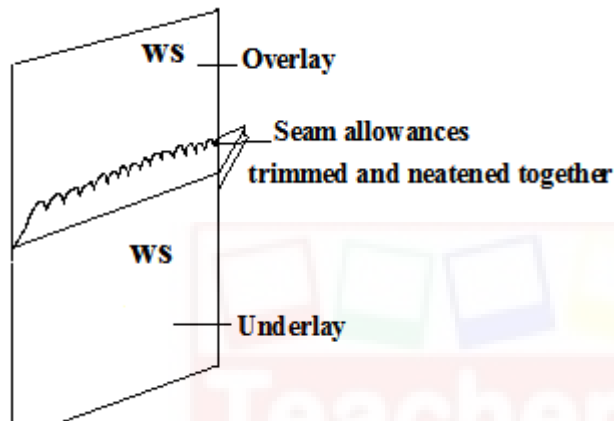
Work on R.S, by placing the fold in the overlay on the stitching line of the underlay



Pin and tack close to the fold.



Remove pins and machine close to the fold, remove tackings
 Trim seam allowances on the W.S
 Neaten the seam allowance together
 Press the seam flat



21. (a)

- **Diabetes** – cause – body failure to control / regulate the level of glucose in the body due to habits like a lot of intake of sugars, carbohydrates and fats, lack of exercises, overweight etc
- **Remedy** – cut down on intake of sugars, junk foods and do exercises
- **Gout** – cause – high intake of red meat and alcohol
- **Remedy** – avoid excessive intake of red meat and alcohol
- **Obesity** – cause – overweight particularly on high intake of fats/ oils and carbohydrates
- **Remedy** – take a balanced diet
- **Anorexia nervosa** – cause – an eating disorder resulting from self starvation or lack of enough food
- **Remedy** – eat a well balance diet
 Eat all meals required

@ cause $\frac{1}{2} \times 4$
 @ stated disorder $\frac{1}{2} \times 4$
 @ remedy 1×4

(8mks)

- (b) - Base should be flat
 - Should be well balanced
 - Base should be thick to distribute heat evenly while cooking
 - Should have a well fitting lid
 - Should have a well fixed insulated handle
 - General appearance should appealing to the eye

(1 x 6 = 6mks)

- (c) - Should be light in weight for comfort
 - Should be absorbent to absorb sweat for comfort
 - Should be strong to withstand frequent washing
 - Should be warm to keep one warm during cold night
 - Should be soft not to irritate the skin
 (if a reason is not given, award zero) (3 x 2 = 6mks)