

24.12 HOME SCIENCE

24.12.1 Home Science Paper 1 (441/1)



MANYAM FRANCHISE
Discover! Learn! Apply

1.
 - Chlorination/water guard.
 - Boiling.
 - Filtration/ sieving.
 - Sedimentation.
 - Decantation.

(Any 2 x 1 = 2 marks)
2.
 - Drying.
 - Jam making/sugar/honey.
 - Canning.
 - Pickling/ vinegar.
 - Bottling.

(Any 2 x ½ = 1 mark)
3. Biological agent used in bread making is yeast.

(1 mark)
4.
 - Avoid extreme temperatures.
 - Do not knock against each other.
 - Handle with care.
 - Do not use harsh abrasives/sharp objects.
 - Avoid heaping together/stacking.
 - Do not mix with other dishes in wash area.

(Any 2 x 1 = 2 marks)
5.
 - Save time.
 - Are available throughout the year.
 - Can be used when there is unexpected emergency visitors.
 - They are enriched in colour, nutrients and flavour.
 - Readily available throughout the year.
 - Are easy to use.
 - Save energy/labour saving.
 - No wastage incurred in shelling, peeling, removing soaking etc.
 - Ideal for unskilled persons trying out new recipes.

(Any 2 x 1 = 2 mark)
6.
 - Crispy and not easy to digest (fried potatoes).
 - Too oily.
 - Too spicy/causes irritation of stomach lining.
 - Colour not appetizing.
 - Meal lacks vitamins which are crucial for convalescent/protective food.

(Any 2 x 1 = 2 marks)
7.
 - Too high temperatures used.
 - Baking tin of too light weight.
 - Consistency too soft.
 - Inadequate raising agent.

(Any 4 x 1 = 2 marks)
8. Kwashiorkor.

(1 mark)
9. Fainting occurs because of a temporary inadequate supply of oxygen/ air/ blood to the brain.

(1 mark)

10. Haemorrhoids are enlarged blood vessels/ piles at the anal region. **(1 mark)**
- 11.
- Illness.
 - Excessive exercises.
 - Malnutrition.
 - Use of contraceptives.
 - Onset of menopause/ after delivery abortion/ miscarriage.
 - Excitement.
 - Trauma/ shock/ bad news.
 - Travelling long distances/climatic change/stress/use of hard drugs. **(4 x 1/2 = 2 marks)**
- 12.
- Avoid raising dust / use damp dusting.
 - Use disinfectant.
 - Avoid excessive noise.
 - Ventilate the room.
 - Wear protective gloves, overalls, masks etc. **(Any 2 x 1 = 2 marks)**
- 13.
- (a) **Physical play:** Body movement or actions performed by a child. **(1 mark)**
- (b) **Imaginative play:** Involves child's ability to form mental pictures or images. **(1 mark)**
14. Ventilation is the free movement of air in and out of a room/ fresh air and stale/ bad air/ space left in a building that allows free flow of air in and out. **(Any 2 x 1 = 2 marks)**
- 15.
- They do not provide enough privacy for the owners.
 - It is not easy to demolish or extend at one's will.
 - Household pests crawl easily from one house to the next.
 - There is danger of fire spreading from neighbouring houses.
 - Noise from the neighbouring houses can be disturbing.
 - They are expensive to build.
 - Dangerous for the old and children because of stairs. **(Any 2 x 1 = 2 marks)**
- 16.
- The effect desired.
 - Use of the room.
 - Existing décor.
 - User's personal preference.
 - Size of room. **(Any 2 x 1 = 2 marks)**
- 17.
- Viscose rayon/Acetate rayon.
 - Acrylic/ Acrilonitrite/ orlod rayon.
 - Polyesters/ terylene/ daeron/ crimplene/ trivera.
 - Polyamide/nylon.
 - Silk.
 - Wool. **(Any 4 x 1/2 = 2 marks)**
- 18.
- For thorough removal of dirt.
 - For removal of soap.

- To restore the condition of the fabric.
 - To refresh fabric/ remove bad odour.
- (2 x 1 = 2 marks)**
- 19.
- Encourages overspending.
 - Encourages buying items that may not be needed/ useful/ prioritized/ interfere with budget.
 - Gives satisfaction that is short-lived.
- (Any 1 x 1 = 1 mark)**
- 20.
- Pushing a needle through the fabric.
 - Protecting the user's finger.
- (2 x 1 = 2 marks)**
- 21.
- Straight stitches.
 - Zig-zag stitches.
 - Overlock stitches
 - Buttonhole stitches
 - Embroidery stitches/decorative stitches.
- (Any 2 x 1/2 = 1 mark)**
- 22.
- Dressmaker's carbon paper and tracing wheel/ biro/ pencil.
 - Tailor's chalk.
 - Thread markings.
 - Tailor's pencil.
 - Tailor's tacks.
- (Any 2 x 1 = 2 marks)**
- 23.
- Weight of fabric.
 - Type of garment/type of fabric.
 - Position where it is to be used.
 - Degree of fraying/type of construction.
- (2 x 1 = 2 marks)**
- 24.
- Buttons with buttonholes/ loops.
 - Ties/ tapes/ ribbons.
 - Velcro.
 - Eyelet holes with cords.
 - Plastic coated press studs.
 - Plastic zips.
 - Buttons.
 - Zips.
 - Press studs.
- (Any 2 x 1 = 2 marks)**
25. (a)
- Shake/ dust the bag to remove loose dirt.
 - Scrub to remove fixed dirt with a soft brush/ sisal fibres in warm soapy water to remove fixed dirt.
 - Scrub a small portion at a time using cold soapy water.
 - Clean inside and outside to ensure both sides are clean.
 - Rinse in warm water to remove soap and dirt.
 - Rinse finally in cold water to freshen it.
 - Dry upside down to remove excess water.
 - Dry under a shade to avoid it fading.
- (8 marks)**
- (b)
- Take measurements and record /draw the outline.

- Wash in warm soapy water using kneading and squeezing method without lifting from basin.
- Rinse in warm soapy water.
- Final rinse in warm water.
- Squeeze out the excess water.
- Roll the sweater in a clean towel.
- Take measurements and reshape.
- Dry flat under shade on a clean surface.
- Press using a warm iron avoiding the ribbing.
- Air.
- Fold appropriately.

(12 marks)

26.

(a)

- To make flour for ugali/ porridge/ alcohol.
- To make laundry starch.
- As a snack.
- As an ingredient in meals (githeri etc).
- To feed animals.
- To make oil.
- For economic gain (sell).

(Any 3 x 1 = 3 marks)

(b)

- Carbohydrates/ starch.
- Oils.
- Roughage.
- Vitamin B Complex.
- Vitamin A.

(Any 4 x 1 = 4 marks)

(c)

(i)

- The size increases/expand/swells.
- Bursting of starch granules/cover breaking.
- Colour changes.
- The texture changes to become softer.
- The flavour changes/becomes sweeter.

(Any 4 x 1 = 4 marks)

(ii)

- Soaking before cooking.
- Using a pressure cooker.
- Covering with a fitting lid/cover.
- Use of bicarbonate soda/ traditional ash.
- Removal of husks.
- Breaking into smaller pieces.

(3 x 1 = 3 marks)

(d)

- Well ventilated to allow free movement of air.
- Clean to avoid contamination.
- Lockable to avoid losses/theft.
- Properly sealed to avoid pests, rodents and moisture.
- Slightly raised to avoid moisture.
- Well dusted with pesticides to avoid attack by pests.
- Dry to avoid making maize damp.

(Any 3 x 2 = 6 marks)

27.

(a)

- Psychologically prepare family members to ensure acceptance of the baby.
- Prepare room.
- Purchasing all requirements for baby and mother.
- Ensure for availability of finances/resources.
- Making decision on type/ place of confinement.
- Making adequate arrangement for physical assistance/ help.

(Any 4 x 1 = 4 marks)

(b)

- Immersing in a sterilizing solution in a plastic container for a minimum of one hour.
- Placing in a saucepan with cold water and bringing it to boil for at least 10 minutes.
- Using a baby sterilizer kit and placing it in the microwave oven for some time.

(Any 2 x 1 = 2 marks)

(c)

- The mother is thoroughly examined to ensure that the uterus is back to normal and that she is healing well.
- The mother's breasts are examined to make sure that she will be able to breast feed.
- The baby is examined to ensure progressive growth/proper feeding habits/good hygiene.
- Immunizations are administered to protect the baby against diseases.
- The mother is advised on good nutrition, child care, hygiene and family planning for healthy living.

(Any 2 x 2 = 4 marks)

(d)

(i)

	A	B
1.	Mattress	Mattress with plastic cover
2.	Mackintosh / plastic sheet	Under blanket
3.	Under blanket	Bottom sheet
4.	Bottom sheet	Top sheet
5.	Top sheet	Top blanket
6.	Top blanket	Cot cover
7.	Cot cover	

(7 x 1 = 7 marks)

(ii)

1. **Mattress:** to provide comfort for the baby.
2. **Mackintosh/ plastic sheets:** protect the mattress against wetness.
3. **Under blanket:** for warmth.
4. **Bottom sheet::**
 - For comfort.
 - Protect under blanket from ageing and dirt.
 - Prevents bed from slipping.
 - Protects baby from direct contact with blanket.
 - For warmth.
5. **Top sheet:**
 - For comfort.
 - Protects top blanket from ageing and dirt.
 - Protects baby from direct contact with blanket.
 - For warmth.
6. **Top blanket:**
 - Provides warmth.
 - For comfort.
7. **Cot covers:**
 - For beauty.
 - Protects beddings against dirt.

(3 x 1 = 3 marks)

28.

(a)

- Cotton is soft/ comfortable.
- Cotton is absorbent therefore it absorbs sweat and body fluids.
- Cotton comes in a variety of weights therefore one can choose according to their needs.
- Cotton is strong therefore can withstand frequent washing.
- Cotton withstands high temperatures therefore can be sterilized.

- Cotton is resistant to alkalis therefore can be safely disinfected/stains can be removed easily.
- Cotton is strong and therefore can withstand a variety of laundry agents.
- Cotton is a good conductor of heat therefore comfortable to wear (cool when hot warm when cold). (Any 4 x 2 = 8 marks)

(b)

- Shell edging: rick rack.
- Embroidering: contrasting colours of threads.
- Using ribbons: corded piped seams.
- Using motifs/ appliques: conspicuous facings/false hems.
- Crocheting: contrasting pocket colours/collars etc.
- Frills.
- Laces. (Any 4 x 1 = 4 marks)

(c)

- To remove creases.
- To sterilize/kill germs.
- To ensure it is completely dry.
- To improve appearance/ make attractive.
- To enhance comfort.
- To prevent pyjamas from getting dirty quickly. (Any 3 x 1 = 3 marks)

(d)

- Stable/ strong to avoid wobbling/falling/causing accidents while ironing.
- Adjustable height to suit the user.
- Suitable iron rest/heat proof mat to avoid scorching surfaces.
- Smoothly padded for effective ironing.
- Fabric used should be heat resistant to withstand high temperatures.
- Well padded surface to provide a suitable base.
- Colour fast to avoid soiling the work.
- Screws firmly fixed for stability quality to avoid accidents. (Any 5 x 1 = 5 marks)

24.12.2 Home Science Paper 2 (441/2)

SCORE

1. **Presentation**

- | | |
|---|------------|
| a) Work well pressed and well folded. | (2 marks) |
| b) Label firmly stitched on single fabric. | (2 marks) |
| c) Pins, tacking threads and unnecessary threads removed. | (1½ marks) |
| d) Made up for the right half. | (1 mark) |

2. **Cutting Out**

- | | |
|---|------------|
| a) All 7 pieces cut out. | (3½ marks) |
| b) Smooth cutting of the CF and cut on straight grain to within 3 mm. | (2½ marks) |
| c) Smooth cutting of the CB and cut on straight grain to within 3 mm. | (2½ marks) |
| d) Smooth cutting of the dress lower edge front and back. | (3 marks) |
| e) Front facing smoothly cut at CF and cut on straight grain. | (1½ marks) |
| f) Back facing smoothly cut at CB and cut on straight grain | (1½ marks) |
| g) Sleeve binding cut on bias. | (1 mark) |

3. **Shoulder Seam – French seam**

- | | |
|--|----------|
| If not French seam award zero from (a-h). | |
| (a) Seam well trimmed, no threads on the R.S. | (1 mark) |
| (b) Straight stitching. | (1 mark) |
| (c) Seam well knife-edged. | (1 mark) |
| (d) Evenness of seam. | (1 mark) |
| (e) Correct size (6 mm) to within 2 mm (4 – 8 mm). | (1 mark) |

- | | SCORE |
|---|-------------------|
| (f) Seam pressed towards the back at armhole and at neck line. | (1 mark) |
| (g) Flatness of seam at armhole R.S. and W.S. | (1 mark) |
| (h) Flatness of seam at neckline R.S. and W. S. | (1 mark) |
| 4. Side Seam – Open Seam | |
| If not an open seam award zero from (a-e). | |
| (a) Seam joined with straight stitching. | (1 mark) |
| (b) Well neaten raw edges. | (4 marks) |
| (c) Evenness of seam allowance. | (1 mark) |
| (d) Correct size of each seam allowance (1 cm) to within 2 mm (0.8 – 1.2 cm). | (1 mark) |
| (e) Seam pressed open and flat at armhole. | (2 marks) |
| 5. Underarm Seam – Open Seam | |
| If not an open seam award zero from (a-f). | |
| (a) Seam joined with straight stitching. | (1 mark) |
| (b) Well neaten raw edges. | (1 mark) |
| (c) Evenness of seam allowances. | (1 mark) |
| (d) Correct size (1 cm) to within 2 mm (0.8 – 1.2 cm). | (1 mark) |
| (e) Seam pressed open and flat at armhole. | (2 marks) |
| (f) Seam pressed open and flat at sleeve binding. | (2 marks) |
| 6. Faced-Sleeve Opening | |
| If not a faced opening, award zero from (a - j). | |
| (a) Facing attached with straight stitching and well knife-edged. | (2 marks) |
| (b) No pleats at the base of the opening. | (1 mark) |
| (c) Facing well neaten along the free edge. | (3 marks) |
| (d) Correct size of facing at the sleeve base (4.5 cm) to within 1 cm (3.5 - 5.5 cm). | (2 marks) |
| (e) Correct length of facing, (exclude binding) (9 cm) to within 5 mm (8.5 - 9.5 cm). | (1 mark) |
| (f) Correct position of opening. | (1 mark) |
| (g) Lower edge of facing concealed in the binding. | (1 mark) |
| (h) Equal length of both sides of the faced opening. | (1 mark) |
| (i) Correct depth of opening (5 cm) to within 5 mm (4.5 cm – 5.5 cm). | (1 mark) |
| (j) Facing secured to sleeve at the upper corners. | (1 mark) |
| 7. Sleeve Binding and Ties | |
| (a) Binding attached with straight stitching. | (1 mark) |
| (b) Quality of stitches at the sleeve (accept hemming and machine stitches). | (1 mark) |
| (c) Raw edges well tucked under. | (1½ marks) |
| (d) Evenness of binding (R.S.). | (2 marks) |
| (e) No gathers formed on sleeve where binding is attached. | (1 mark) |
| (f) Equal length of both ties. | (1 mark) |
| (g) Sharp points at the end of ties. | (2 marks) |
| (h) Flatness of binding. | (1 mark) |
| 8. Sleeve | |
| (a) Good hang. | (1 mark) |
| (b) Gathers well distributed at the crown. | (2½ marks) |
| (c) Armhole seam made with straight stitching. | (1 mark) |
| (d) Notches matched at the armhole seam. | (1 mark) |
| (e) Side seam and underarm seam matching to within 2 mm. | (1 mark) |

	SCORE
9. Neck Facing	
(a) Back and front facing joined with straight stitching, seam trimmed, pressed open and un neatenened.	(2 marks)
(b) Facing attached to neckline with a smooth curve.	(1 mark)
(c) Seam trimmed and snipped.	(2 marks)
(d) Facing understitched.	(1 mark)
(e) Facing seam and shoulder seam matching to within 2 mm at Neckline.	(1 mark)
(f) Free edge of facing well neatenened, close to the edge and held at the shoulder seam.	(3 marks)
(g) CF of dress and CF of facing matching to within 2 mm.	(1 mark)
(h) CB of dress and CB of facing matching to within 2 mm.	(1 mark)