

ALLIANCE GIRLS' HIGH SCHOOL
MOCK 2014

ME SCIENCE

(Theory) 2 1/2 hours

Instructions to candidates

- a) Write your name and index number in the space provided.
- b) This paper consists of three sections: A, B and C.
- c) Answer ALL the questions from Section A and B and any two questions from section C.
 d) Answers to ALL questions must be written in this booklet.

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Hor	exam	iners	use	only	

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATES SCORE
A	1 -20	40	
В	21	20	
С		40	and the second s
		TOTAL SCORE	

SECTION A (40 marks)

Answer all the questions in this section in the spaces provided.

1.	Give two disadvantages associated with canned food.	
2.	State two points to consider when making coating batter so as to ensure good r	esults.
		(2 marks)
3.	Give two advantages of grilling food.	(2 marks)
4.	Mention two qualities of baking flour.	(2 marks)
5.	State two uses of eggs in flour mixtures.	(2 marks)
6.	State two reasons for lining a cake tin.	(2 marks)
7.	Identify two properties which make stainless steel unsuitable for cooking pots.	(2 marks)
8.	State two functions of a clothes horse.	(2 marks)
9.	Why is vinegar added to the final rinsing water when laundering loose coloured	cottons.
10.	Give two reasons for using curtains in a bedroom.	(1 mark) (2 marks)
11.	Define the following terms as used in colour:	
	(i) Tone	(1mark)
	(ii) Intensity iii) Tint	(1mark) (1 mark)
- (SEAL POSSESS	(1 mark)
12.	Give a reason why a pressure lamp should not be overfilled with paraffin	(1 mark)
13.	State three ways of minimizing glare when lighting the house	(3 marks)
14.	Mention four important pieces of information one would expect to find on labe	ls of packed
	products	(2 marks)
15.	Name four different save ways of keeping money for a family or individual.	(2 marks)
16.	List two methods of credit buying.	(1 mark)
	i)	
	ii)	
17	State two qualities of a well-made cuff	(2 marks)

18. Mention two undesirable characteristics of silk fibre. (2 marks)

19. Name three methods of attaching collars to a negative. (3 marks)

20. List four suitable fastenings for edge to edge openings. (2 marks)

SECTION B (20 Marks)

Answer 21 question in this section in the spaces provided

You are planning to visit your grandmother over the August holiday.

21. a) Describe the procedure you would follow to launder her white cotton table cloth.

(10 marks)

b) Outling the steps you would follow to thorough clean a polished wooden table surface with stein (6 marks

Give the procedure you would use to clean a calabash. (4 marks)

SECTION C (40 marks)

Answer any two questions in this section in the spaces provided at the end of the section

22 a) Describe any special treatment done before drying. (8 marks)

b) Outline the steps of a bed bath. (8 marks)

c) State four points to be observed in the care of lamps. (4 marks)

23. a) Explain the scientific principles underlying the following as methods of food preservation:-

preservation:i. Canning and bottling (2 marks)

ii. Freezing and chilling (2 marks)

iii. Drying and dehydration (2 marks)

b) Mention five general rules for baking foods. (5 marks)

c) Identify five activities carried out in the management of suffocation. (5 marks)

d) State four points on the care of oven utensils. (4 marks)

24. a) Describe how to make a machine fell seam on the side of a cotton short. (10 marks)

b) Discuss six guidelines in purchasing fastenings.

c) Discuss four points to consider when choosing sleeves. (4 marks)

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1. Two disadvantages associated with canned food.

(2 marks)

- Any flaw in the container used for canning allows air and pollution to enter and this
 could lead to production of poisonous substances and gas that is likely to result into
 food poisoning.
- -The high temperatures used to destroy bacteria during canning have a damaging effect on vitamin C and the B group therefore lowering the nutritive value of foods.
- -The processing that the foods undergo during canning may after the texture and flavor of foods.
- 2. Two points to consider when making coating batter so as to ensure good results. (2 marks)

-Weigh out the ingredients accurately in order to obtain the right coating consistency

- -Allow batter to stand at least for half an hour before use to enable starch grains to absorb liquid and soften.
- -Cover the container during relaxing period to avoid contamination of the batter.

3. Two advantages of grilling food.

(2 marks)

- Quick method of cooking food.

- Food is appetizing.

- Used to brown the top of foods such as shepherd's pie.

4. Two qualities of baking flour.

(2 marks)

- Have correct amount of gluten.
- Be finely ground.
- Have no foreign bodies.
- Have correct colour.
- Have no lumps.
- Not stale i.e. no odour of staleness / fresh and not expired

5. Two uses of eggs in flour mixtures.

(2 marks)

- Contribute to the structure of the finished product.
- Add nutritive value.
- Add flavor and colour
- Used as a raising agent.

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(6 marks)

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6. Two reasons for lining a cake tin.

(2 marks)

- To prevent the cake from sticking hence making it casier to remove.
- To avoid over – browning

- To avoid drying up.

7. Two properties which make stainless steet ansuitable for cooking pans.

(2 marks)

- It discolours easily when exposed to dry heat.

- It has a high conductivity of heat that burns food.

- It is scratched easily by abrasives.

- It is not easy to remove stains.

(2 marks)

8. Two functions of a clothes horse.

- Used to dry clothes indoors.
- For airing stathes after ironing.
- For storage of clothes.

9. Vaccar is added to the final rinsing water when laundering loose coloured cottons to

brighten the colour. (1 mark)

(2 marks)

10. Two reasons for using curtains

- For privacy.
- decoration.
- warmth.
- filtering.

11. Define terms:

(1 mark)

Refers to the general effect of a colour or colour schemes e.g. Bright, harmonious, matching and clashing.

Intensity Strength of a colour e.g. dull, weak, bright (1 mark)

(1 mark) (iii) Tint A slight tinge of a color that is produced by mixing the colour with white. e.g. Pink is a tint of red.

12. Reason why a pressure lamp should not be overfilled with paraffin. (1 mark)

- There will no space for pumping in air thus it will not light up but will spill kerosene.

13. Three ways of minimizing glare when lighting a house.

(3 marks)

- Use of lamp shades.
- Use of coloured bulbs.
- Avoid shiny surfaces.

14. Three important pieces of information one would expect to find on labels of packed (3 marks) products.

Name of the product.

- Net quantity of the content.
- Name of the place of business.
- Ingredients used.
- Artificial coloring, preservatives (if used)
- Styles of the packaging e.g. sliced pineapples.
- How to use the product.
- Care of the product.
- Use of the product.
- Expiry date (where applicable)

15. Four different save ways of keeping money for a family or individual.

(2 marks)

- Banking account.
- Saving account.
- Fixed deposit account.
- Current account.
- Insurance.
- Shares.
- Pension funds.

16. Two methods of credit buying.

(1 mark)

- Simple non-installment credit.
- Use of credit cards.
- Hire purchase.

17. Two qualities of a well-made cuff.

(2 marks)

- The two cuffs should be identical.
- Width and size of both cuffs should be the same.
- Be flat and where applicable smooth.
- Have a good knife edge.
- Size should be proportional to the rest of the garment.
- Interfacing should be concealed inside the cuf

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18. Two undesirable characteristics of silk fibres.

(2 marks)

- Very sensitive to alkalis and acids.
- Weak when wet.
- Sweat stains are difficult to remove.
- Easily damaged by high temperatures.
- Long exposure to sunlight weakens the fibres.

19. Three methods of attaching collars to a neckline.

(2 marks)

- Self-neatened collar.
- Using a band.
- a facing.
- a cross way strip or bias binding.

20. Four suitable fastenings for edge to edge openings.

(2 marks)

- Hook and eve.
- Hook and bar.
- Buttons and rouleau loops.

SECTION B (20 MARKS)

21 a) Procedure to follow to launder white cotton table cloth.

(12 marks)

- -Collect all laundering equipment and materials. (1/2)
- Soak (1/2) in cold water (1/2)
- Wring out (1/2) soaking water.
- Wash (½) in hot (½) detergent (½) water using friction (½) method.
- Rinse (1/2) in hot (1/2) water.
- Final rinse (1/2) cold water then starch (1).
- Knead and squeeze (1/2) the cloth in starch solution of correct strength(1/2) 1:4 boiling
- Wring out as much as possible (1/2) and hang straight (1/2) on a clothes line securing firmly with a pegs in the sun(1/2)
- Iron on both sides (1/2) using a hot (1/2) iron while slightly damp (1/2)
- Start ironing double parts (1/2) on the W.S.
- Air (1/2)
- Fold in 4 screens (1/2) and store (1/2) appropriately
- b) Steps to follow to thorough clean a polished wooden table surface with a stain (6 marks)
 - Collect all cleaning equipment and materials (1/2)

- Dust the surface thoroughly (1/2)
- If stained, clean with a cloth wrung out (1/2) of warm soapy water (1/2)
- Wipe with a cloth wrung out of clean water (1/2)
- Allow drying completely (1/2)
- Apply polish sparingly (1/2) on the surface using an old piece of cloth (1/2)
- Rub in circular movements (1/2) that overlap
- Shake the spray polish container (1/2) hold it 6 inches (1/2) away from the surface and spray sparingly (1/2)
- Leave it for about ten minutes (½) for polish to set (½)
- For spray to polish, buff immediately
- Use a soft, dry and non-fluffy cloth (1/2) folded into a pad to buff the surface (1/2)
- c) Procedure to use to clean her calabash

(4 marks)

- Wash in warm (1/2) soapy (1/2) water using a mild abrasive (1/2)
- Rinse thoroughly in warm (1/2) water
- Rinse in cold (1/2) water to freshen
- Place upside down (1/2) on a drying rack (1/2)
- Store in a cool dry place (1/2)

SECTION C (40 marks)

22. a) Describe any special treatment done before drying.

(8 marks)

- -Starching -used to stiffen cotton and linen fabrics .Done after the final rinsing
- -Fixing colors -Treatment given to loose-coloured articles to prevent loss of color
- -Blueing-Treatment given to white fabrics which tend to yellow with age
- -Disinfecting- chemical disinfectants can be added to garments in the final rinsing water to kill disease-causing germs
- -Fabric conditioning-Treatment given to pure synthetics which develop and hold static electricity
- b) Steps of a bed bath.

(8 marks)

- Collect all items required for the bath (e.g.) soap, flannel, changing clothes, towel, warm water, fresh bed sheets.
- Remove top beddings- bedcover, top sheet and blanket duvet
- Place a towel under the sick person, undress and cover him/her with a blanket
- Wet the flannel in the warm water and rub some soap. Wash the patient's face, rinse, and dry using the towel. Wash other parts of the body ,turn the patient when the black is being washed

- Dress the patient with clean clothes
- Remove the towel and replace the bed sheet if wet
- Replace the top beddings
- Clean and replace bathing items.

c) Four points to be observed in the care of camps

(4 marks)

- Dust them regularly to get rid of loose dirt
- Occasionally wipe them with a damp cloth to remove marks
- For those that use kerosene, ensure that reservoir is never empty to prevent rusting
- For lantern and hurricane lamps, trim the wick to the right size and Shape to prevent smoking when lit
- Replace the wick and mantle regularly
- So not subject the pressured lamp to knocks to avoid damaging the mantle
- Do not over fill with kerosene to avoid spills
- Ensure the lamps are placed on a flat and stable surface during use and storage
- Keep lamps out of reach of children
- Lamps should not be lit near flammable substances
- Keep the glass chimney
- Ensure that the flame of the hurricane lamp is not too high
- Ensure that the air vents on the hurricane, pressure and gas lamps are not blocked
- 23. a) Scientific principles underlying methods of food preservation.
 - Canning and bottling

(2 marks)

- Removal of oxygen when sealing the can.
- Use of high temperature to kill micro-organisms.
- Use of sugar to retard the growth of micro-organisms
 - ii) Freezing and chilling

(2 marks)

- Low and fast freezing enable cold temperature to reach the central point of food package therefore no patches remain in which the enzymes & micro- organisms continue to react.
- Low temperatures retard the action of enzymes and stop the growth of micro
 organism.
- Freezing converts water to ice making water unavailable reduces growth rate of micro- organism.
 - iii) Drying and dehydration

(2 marks)

- Removal of moisture from food inactivates the enzyme.

- Drying concentrates the soluble nutrients in food this prevent the growth of microorganism.
- b) Five general rules for baking foods

(5 marks)

- Pre-heat the oven to the correct temperature before putting the food to be baked
- Place the food in the right shelf
- Observe the baking duration for the item being baked
- Do not open the oven door before the mixture sets
- Avoid banging the oven door during the baking process
- Test baked foods for readiness before removing them from the oven
- Turn baked foods on a cooling tray or rack to cool as necessary, unless the foods are to be served in the dishes in which they were baked.
- c) Five activities carried out in the management of suffocation

(5 marks)

- If the cause of suffocation in due to lack of fresh air, take the person outside to an airy place
- If it is due to a polythene paper bag getting stuck in the head, remove it
- If the person is unconscious, seek medical attention
- If it is due to gas, leakage, switch off the gas cylinder
- If it is due to carbon monoxide from a charcoal stove, take it outside
- d) Four points on the care of oven utensils

(4 marks)

- Clean well after use according to the material
- Store when completely dry to avoid rusting
- Non-stick tins must not be cleaned with abrasives as this will remove the coating
- Casseroles should not be exposed to extreme temperatures
- Avoid careless handling such as banging or dropping to prevent breakage and denting.
- 24. a) How to make a ran and fell seam on the side of a cotton short

(10 marks)

- Place the fabrics together with the W.S facing and the F.L matching(1)
- Pin and tack (1/2) along the F.L.
- Remove pins (½) and back stitch (½) along the F.L.
- Remove tacking(½) and press(½)
- Trim back turning(½) to 6mm(½) and the front to 12mm(½)
- Fold over the front (1/2) over to the back (1/2) to form the fell
- Press the fell (1/2) to lie on the back(1/2) of the garment

- Tack (1/2) and gem close to the fold of the three lawers
- Remove tacking(1/2) and press (1/2) completed seam.

b) Six guidelines in purchasing fastenings

(6 marks)

-zip fasteners are put in trousers and skirts while buttons are placed on shirts and blouses

-Age of the wearer.

-Non-metallic fasteners that are easy to open and close are more preferred for children

-Effect desired.

-Buttons and Aps can be placed conspicuously and decoratively to add to the style of the garment

-Position of the opening.

-After the choice of a fastener (e.g.) Wrist opening has buttons

-Type of abric.

-Heavy fabrics require larger and stronger fastener such as button and zips.
-Fraying fabrics- Rouleau loops instead of buttons.

Quality of the button.

- should not loose its colour or rust as this may spoil the garment

-Colour of the garment.

-Buttons and zips should be the same color or the dominant color of the garment

- Size of the fastener.

- should be proportional to the opening.

c) Discuss four points to consider when choosing sleeves

(4 marks)

- Use of the garment.

Garments worn during manual or laundry work or work involving use of hands a lot should not be wide and long sleeved

- Type of fabric used.

-wide and puffed sleeves do not suit being made for heavy fabrics

- Style of the garment.

- Shirts do not have fancy wide sleeves

- The wearer of the garment.

-frilly, gathered sleeves are not normally suited for men except for very formally dressing.

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