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BECE

**BASIC DESIGN AND TECHNOLOGY
(Home Economics)**

Past Questions & Answers

2010 - 2017

**Junior High School
Years 1, 2 & 3**

Compiled by:



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- **Teachers, parents and educational institutions** – for your continuous patronage and tireless efforts at ensuring quality education for the 21st century child
- Junior High School **students** – you are the ultimate reason for this work.

DEDICATION

To the Lord **Jesus Christ**, our Saviour and soon-coming King

LIST OF PAPERS

2017	HOME ECONS	PAPER 1
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June 2017

BASIC DESIGN AND TECHNOLOGY 1 (Home Economics 1)

Objective Test 40 minutes

1. A **common** method of cooking ripe plantain for sale is
 - A. boiling.
 - B. roasting.
 - C. grilling.
 - D. baking.

2. To shorten the cooking time for meat,
 - A. slice along the grain.
 - B. cut into small pieces.
 - C. slice into thin pieces.
 - D. cut across the grain.

3. In taking body measurement, a firm tape measure is needed to
 - A. save time.
 - B. avoid wasting fabric.
 - C. obtain accuracy.
 - D. make sewing easy.

4. Which of the following principles of design is similar to proportion?
 - A. Balance
 - B. Perspective
 - C. Rhythm
 - D. Scale

5. A preliminary design is meant to
 - A. improve creativity.
 - B. increase production.
 - C. make sketches.
 - D. produce ideas.

*Use the sketch in **Figure 1** to answer Questions 6 and 7*

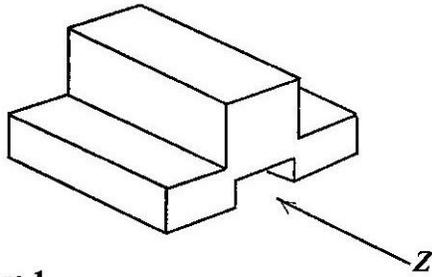
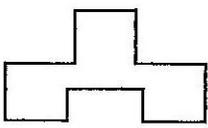


Figure 1

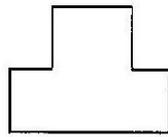
6. Which of the following represents the front view in the direction of arrow Z?



A.



B.

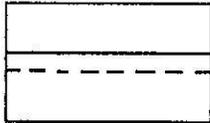


C.

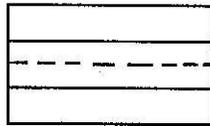


D.

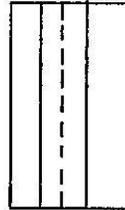
7. Which of the following represents the left end elevation?



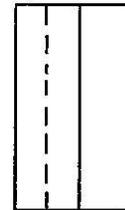
A.



B.



C.



D.

8. A single unit of a design is known as

- A. motif.
- B. pattern.
- C. plan.
- D. print.

9. Angles are measured by using a

- A. compass.
- B. protractor.
- C. rule.
- D. set square.

10. In designing, the analysis question, what is the purpose of the unit? falls under

- A. construction.
- B. ergonomics.
- C. function.
- D. material.

11. To repair an electrical fault, a safety precaution to observe is to
- disconnect live wires.
 - remove fuse.
 - remove cover of socket.
 - switch off main supply.
12. Which of the following is **not** a cause of weakness in furniture?
- Loose joint
 - Insufficient polish
 - Overloading
 - Removal of nail
13. The tee-square is used for drawing
- arcs.
 - circles.
 - horizontal lines.
 - vertical lines.
14. Identify the type of lettering used for emphasis.
- Freestyle
 - Gothic
 - Italics
 - Romans
15. Strips cut on the true cross of fabric are usually used for curved edges because they
- stretch easily.
 - do not fray.
 - are easily prepared.
 - are colourful.
16. The **best** fastening for the full back opening of a fourteen year old school girl's uniform is
- press studs.
 - zipper.
 - velcro.
 - tapes.
17. When making a shirt sleeve, the two rows of gathering stitches are worked on the
- seam allowance of the sleeves.
 - hem of the sleeves.
 - side seam of the sleeves.
 - cap of the sleeves.
18. The **most** suitable pocket found on men's classic shirt is
- bound.
 - in-seam.

- C. patch.
- D. welt.

19. In attaching a turnover to a shirt, the first process to work on is the
- A. joining and stitching of the side seam.
 - B. preparation and fixing of a pocket.
 - C. joining and stitching of the shoulder.
 - D. preparation and setting in of sleeve.
20. The French seam is the **most** appropriate seam for
- A. children's wear.
 - B. heavy weight fabrics.
 - C. light weight fabrics.
 - D. undergarment.
21. A repair work done by weaving thread into weakened portion of article is termed
- A. renovating.
 - B. darning.
 - C. remodeling.
 - D. patching.
22. An advantage of freehand cutting is that
- A. it is good for mass production.
 - B. it is good for beginners.
 - C. it conserves time and energy.
 - D. there is no need for pattern drafting.
23. The **most** important factor to consider when buying canned food is the
- A. weight.
 - B. label on product.
 - C. colour.
 - D. expiry date.
24. In order to retain the nutrients in leafy vegetables,
- A. cut one hour before cooking.
 - B. cut when ready to cook.
 - C. cut when the water is boiling.
 - D. cut few minutes before cooking.
25. In table setting, a cover refers to the space
- A. beside the person's seat.
 - B. left of the person's seat.
 - C. in front of the person's seat.
 - D. right of the person's seat.
26. The basic ingredients for preparation of batter are

- A. flour, egg and milk.
- B. flour, egg and oil.
- C. flour, egg and yeast.
- D. flour, egg and baking powder.

27. Food is preserved **mainly** to

- A. maintain its shape.
- B. make it last longer.
- C. make it palatable.
- D. protect micro organism.

28. A suitable flour used to prepare bread is

- A. soft flour.
- B. self raising flour.
- C. composite flour.
- D. strong flour.

29. Which of the following dishes is garnished with lemon and parsley?

- A. Grilled mackerel
- B. Grilled chicken
- C. Roast lamb
- D. Beef loaf

30. Which of the following is a white fish?

- A. Mackerel
- B. Cod
- C. Herring
- D. Tilapia

June 2017

BASIC DESIGN AND TECHNOLOGY 1 (Home Economics 1)

Objective Test

ANSWERS

1. C. grilling
2. D. cut across the grain
3. C. obtain accuracy
4. D. Scale
5. D. produce ideas
6. A.
7. A
8. A. motif
9. B. protractor
10. C. function
11. D. switch off main supply
12. B. Insufficient polish
13. C. horizontal lines
14. C. Italics
15. A. stretch easily
16. B. zipper
17. D. cap of the sleeves
18. C. patch
19. C. joining and stitching of the shoulder
20. C. light weight fabrics.
21. B. darning
22. D. there is no need for pattern drafting
23. D. expiry date
24. B. cut when ready to cook
25. C. in front of the person's seat
26. A. flour, egg and milk
27. B. make it last longer
28. D. strong flour
29. B. Grilled chicken
30. B. Grilled chicken

June 2017

BASIC DESIGN AND TECHNOLOGY 2
(Home Economics 2)

Essay

1 hour 15 minutes

SECTION A
(CORE SKILLS)

[20 marks]

Answer question 1 [COMPULSORY]

1. (a) What are *temporary stitches*?

.....
.....
.....
.....

[2 marks]

(b) State **four** reasons for setting a table for family meals.

.....
.....
.....
.....

[4 marks]

(c) A unit for hanging school uniforms is to be designed and made in the school workshop.

(i) State **two** places where the unit would be placed in the workshop.

.....
.....

(ii) State **two** specifications of the unit based on construction;

.....
.....
.....

(iii) Name **one** specific material to be used for making the unit.

.....
.....

[7 marks]

(d) (i) List **five** important pieces of information printed onto a package.

.....
.....
.....
.....
.....
.....

[5 marks]

(ii) Name **two** other methods for making a print.

.....
.....
.....
.....

[2 marks]

SECTION B
[50 marks]

Answer two questions only from this section
All questions carry equal marks

2. (a) Identify **two** types of permanent stitches.
.....
.....
.....
.....
[2 marks]
- (b) State **five** general rules for making stitches.
.....
.....
.....
.....
.....
.....
[10 marks]
- (c) State **one** use **each** of the following tools and equipment for sewing:
- (i) tracing wheel;
.....
- (ii) pressing iron;
.....
- (iii) full length mirror;
.....
- (iv) seam ripper;
.....
- (v) stiletto.
.....

[10 marks]

- (d) Complete the definition of a patch with the appropriate words listed below.
weak, space, material, repair, hole.

A patch is a small piece of that is used to cover a
or to strengthen a area.

[3 marks]

3. (a) State **one** function **each** of the following nutrients:

(i) protein:

.....
.....

(ii) carbohydrates;

.....
.....

(iii) vitamins.

.....
.....

[3 marks]

- (b) List **three** protein sources **each** of the following:

(i) animal;

.....
.....

(ii) vegetable

.....
.....

[3 marks]

- (c) (i) Ama has to prepare chicken stew for the mother's birthday.
List **six** ingredients she will need for the stew.

.....
.....
.....
.....
.....
.....

[3 marks]

(ii) State **three** accompaniment that can be served with the stew.

.....
.....
.....
.....

[3 marks]

(iii) What are the basic ingredients used in pastry making?

.....
.....
.....
.....

[3 marks]

(d) State **four** causes of food spoilage.

.....
.....
.....
.....
.....

[4 marks]

(e) Explain the term *Essential Amino Acids* by filling in the blank spaces with appropriate words below.

body, protein, foods, produced, cannot, compounds, eat.

They are the chemicalof protein which are found in the

..... we and be

..... by the by the

[6 marks]

4. (a) State **four** signs of Kwashiorkor.

.....
.....
.....
.....
.....

[8 marks]

(b) Outline **three** functions of water in the body.

.....
.....
.....

.....
.....

[6 marks]

(c) (i) State **one** reason why dietary fibre is important in a diet.

.....
.....
.....

[2 marks]

(ii) List the **four** fat soluble vitamins.

.....
.....
.....
.....
.....

[4 marks]

(d) Explain **two** reasons for preserving foods.

.....
.....
.....
.....
.....

[4 marks]

(e) State the **major** function of iodine in the body.

.....
.....
.....
.....

[1 marks]

END OF ESSAY TEST

June 2017

BASIC DESIGN AND TECHNOLOGY 2

(Home Economics 2)

Essay

ANSWERS

1. (a) **What are *temporary stitches*?** [2 marks]

These are stitches used to hold parts of articles together and removed when permanent stitches are made.

- (b) **State four reasons for setting a table for family meals.** [4 marks]

(Mention any **four** of the following)

- To stimulate / whet appetite
- To have all items needed within reach
- To make eating more pleasant
- To create a welcoming environment
- It brings out the skills of the caterer
- Young ones are taught how to set table

- (c) **A unit for hanging school uniforms is to be designed and made in the school workshop.** [7 marks]

- (i) **State two places where the unit would be placed in the workshop.**

(Mention any **two** of the following)

- In the wardrobe
- On the wall
- Partition bar
- Behind the door
- On the window frame
- Rod
- Pipe
- Hanger

- (ii) **State two specifications of the unit based on construction;**

(Mention any **two** of the following)

- Must be strong
- Should take more uniforms at a time
- Corrosive resistant
- Screwed
- Portable
- Joints

(iii) Name one specific material to be used for making the unit.

(Mention any **one** of the following)

- Odum
- Sapele
- Wawa
- Raffia palm
- Cane
- PVC (acrylic)

(d) (i) List five important pieces of information printed onto a package. [5 marks]

(Mention any **five** of the following)

- The name of the product
- Manufacturing date
- Expiry date
- Bar code
- The ingredients used
- Picture of content
- Country of origin
- Usefulness of product
- Net weight / volume of the product

(ii) Name two other methods for making a print. [2 marks]

- Direct printing from existing surfaces, e.g. leaf, tree bark, coin
- Indirect printing, e.g., block, screen, stencil, roller, relief and frontage

SECTION B
[50 marks]

Answer two questions only from this section
All questions carry equal marks

2. (a) **Identify two uses of permanent stitches.** [2 marks]

(Mention any two of the following)

- For joining /holding fabric
- For neatening
- For decorating

- (b) **State five general rules for making stitches.** [10 marks]

(Mention any five of the following)

- Choose the correct stitch for the work to be carried out.
- Use the correct size of needle and right types of thread for the material fabric
- Fasten on and off securely/start with a double stitch and end with a double stitch
- Wear a thimble on the middle finger of the hand which is used for sewing
- Work one stitch at a time
- Do not use a knot for fastening on stitches
- Length of thread for hand sewing is from the tip of your middle finger to the elbow / the thread for sewing should not be long
- Use the colour of thread to match the colour of fabric.

- (c) **State one use each of the following tools and equipment for sewing:** [10 marks]

- (i) **tracing wheel;**

It is used with dressmaker's carbon paper for transferring pattern lines and marking onto fabrics

- (ii) **pressing iron;**

(Mention any one of the following)

- It is used to press articles to remove creases
- It is used to press seam open.
- It is used to iron seam / garment / article

(iii) full length mirror;

It is used for fitting garment and appreciating the style of the garment.

(iv) seam ripper;

(Mention any one of the following)

- It is used to remove stitches
- For making a slit for buttonholes
- For cutting button holes

(v) stiletto.

Used for piercing holes and eyelets

(d) Complete the definition of a patch with the appropriate words listed below. [3 marks]
[weak, space, material, repair, hole]

A patch is a small piece of material that is used to cover a hole or to strengthen a weak area.

3. (a) State one function each of the following nutrients: [3 marks]

(i) protein:

(Mention any one of the following)

- For body-building
- For repair of worn-out tissues
- For maintenance of the body

(ii) carbohydrates;

Provides heat and energy

(iii) vitamins.

(Mention any one of the following)

- For regulating body processes
- For protection against diseases

(b) List three protein sources each of the following: [3 marks]

(i) animal;

(Mention any three of the following)

- Meat (beef, mutton, veal, pork, poultry, etc),
- fish,
- snails,
- milk,
- cheese,
- egg,
- wagashi

(ii) vegetable

(Mention any three of the following)

- soyabeans,
- cowpeas,
- tofu,
- neri,
- melon seeds,
- agushie,
- groundnuts,
- soya milk,
- dawadawa

- (c) (i) Ama has to prepare chicken stew for the mother's birthday.
List six ingredients she will need for the stew.**

[3 marks]

(Mention any **six** of the following)

- Chicken
- Onion
- Tomatoes
- Salt
- Cooking oil
- Stock cube
- Pepper
- Ginger
- Garlic

- (ii) State three accompaniment that can be served with the stew.**

[3 marks]

(Mention any **three** of the following)

- All rice dishes – boiled, vegetable, curried, saffron, fried, coconut
- Banku
- Boiled yam / fried yam / yam chips/ yam balls /
- Boiled Potato / potato chips
- Kenkey / fomfom
- Eba
- Abolo
- Yakeyake
- Akyeke

(iii) What are the basic ingredients used in pastry making?

[3 marks]

- Flour
- Fat – butter, margarine
- Water

(d) State four causes of food spoilage.

[4 marks]

(Mention any **four** of the following)

- Enzyme action / natural decay within the food
- Contamination by micro organisms, e.g., yeast
- Insects / rodents attack
- Improper handling of food / handling food with dirty hands
- Oxidation

(e) Explain the term *Essential Amino Acids* by filling in the blank spaces with appropriate words below.

body, protein, foods, produced, cannot, compounds, eat.

[6 marks]

They are the chemical compounds of protein which are found in the foods we eat and cannot be produced by the body

4. (a) State four signs of Kwashiorkor.

[8 marks]

(Mention any **four** of the following)

- The child's skin become wrinkled
- The hair looks silky, reddish brown and scanty / loss of hair
- Growth is retarded / stunted growth
- The child has a protruding shiny belly, flabby buttocks
- The child is easily infected
- The child becomes restless

- The child develops oedema / edema (swollen feet, moon-like face)
- The child loses interest in his/her surroundings
- The child loses weight

(b) Outline three functions of water in the body.

[6 marks]

(Mention any **three** of the following)

- It is required for all body fluids, e.g. saliva, mucus, blood, sweat, urine, digestive juices
- It is required as part of many metabolic reactions / body processes
- Some nutrients dissolve in water for proper absorption
- It helps regulate body temperature
- It helps with easy bowel movement / prevents constipation / It helps with egestion
- It lubricates joints and membranes
- It quenches thirst
- It prevents dehydration.

(c) (i) State one reason why dietary fibre is important in a diet.

[2 marks]

(Mention any **three** of the following)

- It increases the bulk of food
- It helps in the movement of the digestive tract / it aids digestion
- It helps with easy bowel movement / prevents constipation / It helps with egestion

(ii) List the four fat soluble vitamins.

[4 marks]

- Vitamin A
- Vitamin D
- Vitamin E
- Vitamin K

(d) Explain two reasons for preserving foods.

[4 marks]

(State and briefly explain any **two** of the following)

- To prevent waste
- To make food available throughout the year.
- To save money
- To bring variety in meals
- For easy transportation
- For easy storage
- To prolong the life span of the food
- To prevent micro-organisms from contaminating the food / to prevent spoilage

- To take care of emergencies

(e) **State the major function of iodine in the body.**

[1 mark]

- For the proper functioning of the thyroid gland
- For the prevention of goitre

June 2016

BASIC DESIGN AND TECHNOLOGY 1
(Home Economics 1)

Objective Test
40 minutes

1. The basic stitch which starts **all** crocheted articles is
 - A. chain
 - B. cross
 - C. loop
 - D. stem

2. A glass is **best** used to serve
 - A. cream
 - B. drinks
 - C. ice-cream
 - D. yoghurt

3. Which of the following is inexpensive to use in the rural area?
 - A. Coal pot
 - B. Electric cooker
 - C. Gas cooker
 - D. Kerosene stove

4. The visitors book signed at exhibitions help the exhibitor to know
 - A. the number of people who came
 - B. how many works were sold
 - C. the number of people who showed interest
 - D. what people observed about the work

5. In drawing, objects nearer the viewer are in the
 - A. background
 - B. foreground
 - C. horizon
 - D. middle ground

Use the sketch in Figure 1 to answer Questions 6 and 7

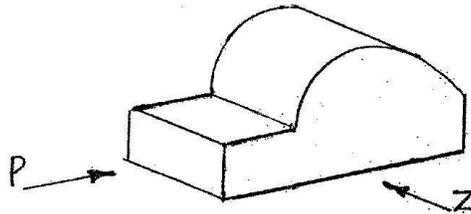
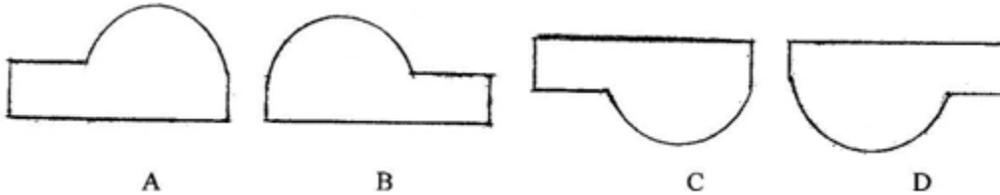
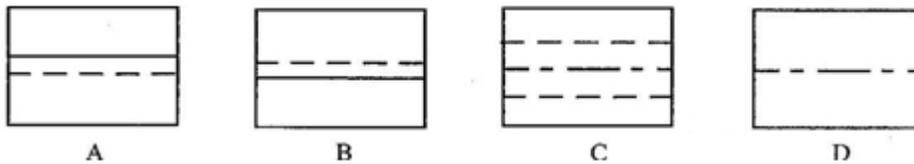


Figure 1

6. Which of the following represents the front elevation in the direction of arrow Z?



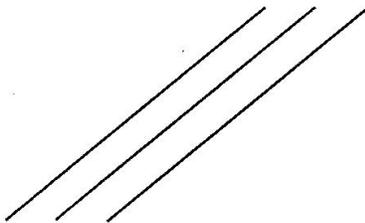
7. Which of the following represents the left end elevation in the direction of P?



8. Rhythm, balance and emphasis are

- A. design processes
- B. elements of art
- C. idea developments
- D. principles of design

9.



The lines drawn above are

- A. diagonal
- B. parallel
- C. vertical
- D. zigzag

10. The final stage of the design process is the

- A. evaluation
- B. possible solutions

- C. specification
- D. working drawings

11. Which of the following is not a method of recording a data for solving a design problem?

- A. Observation
- B. Photographs
- C. Sketches
- D. Write-up

12. Which of the following joints will be suitable for a chair to be dismantled and reassembled?

- A. Nail lap joint
- B. Glued butt joint
- C. Glued screw joint
- D. Bolt and nut

13.

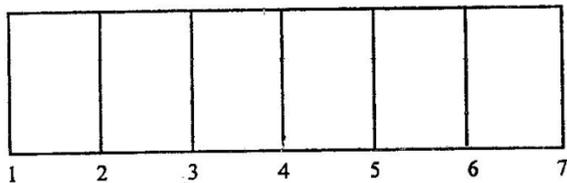


Figure 2

Figure 2 shows the surface development of a

- A. cylinder
- B. hexagonal prism
- C. hexagonal pyramid
- D. square prism

14. Select a shading style from the following options

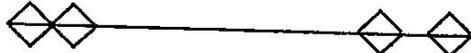
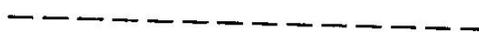
- A. Glazing
- B. Hatching
- C. Sgraffito
- D. Sketching

15. A formal outlet for raising money to start a sewing business is

- A. a family member
- B. a rural bank
- C. money lenders
- D. the susuman

16. The sewing machine should be inserted with the flat side facing theof the machine.

- A. back
- B. front
- C. inside
- D. outside

17. Which of the following items will be the basic tools needed for learning how to sew?
- Buttonhole scissors, pins and thread
 - Metre rule, needles and shears
 - Needles, tape measure and pins
 - Pencil, pins and thread
18. Which of the following fibres is obtained by retting?
- Cotton
 - Jute
 - Linen
 - Sisal
19. When making a French seam, start by placingtogether.
- one wrong side against one right side
 - two right sides
 - two right sides folded edges
 - two wrong sides
20. The first line of stitching when making a French seam is done on the
- cutting line
 - right side
 - seam line
 - wrong side
21. Which of these pattern markings indicates seamline?
- 
 - 
 - 
 - 
22. Strips cut on the true cross of a fabric are usually suitable for curved edges because they
- are attractive
 - are straight
 - have the ability to stretch
 - have very narrow widths
23. Which of the following tools should be used to remove fibre and nut from palm fruit liquid?
- Colander
 - Metal sieve
 - Perforated spoon

D. Strainer

24. Kitchen hygiene includes

- A. using clean water for cooking
- B. washing hands before handling food
- C. washing utensils immediately after use
- D. wearing clean clothes

25. Lack of calcium results in

- A. anaemia
- B. goiter
- C. marasmus
- D. rickets

26. The most expensive nutrient in the Ghanaian diet is

- A. carbohydrate
- B. fat
- C. protein
- D. vitamin

27. For a hardboiled egg, cook between

- A. 2 to 5 minutes
- B. 5 to 6 minutes
- C. 7 to 8 minutes
- D. 8 to 10 minutes

28. Food retains most of the nutrients and flavor when it is

- A. boiled
- B. fried
- C. steamed
- D. stewed

29. When steaming

- A. do not allow water to boil
- B. put the food in the boiling water.
- C. the boiling water must not touch the food.
- D. remove the food when water begins to boil

30. The elements of design which are readily noticed when a table is set for meals are

- A. lines and dots
- B. shape and colour
- C. texture and lines
- D. texture and shape

June 2016

BASIC DESIGN AND TECHNOLOGY 1 **(Home Economics 1)**

Objective Test

ANSWERS

1. A. chain
2. B. drinks
3. A. Coal pot
4. D. what people observed about the work
5. B. foreground
6. A
7. B
8. D. principles of design
9. B. parallel
10. A. evaluation
11. A. Observation
12. D. Bolt and nut
13. B. hexagonal prism
14. B. Hatching
15. B. a rural bank
16. A. back
17. C. Needles, tape measure and pins
18. C. Linen
19. D. two wrong sides
20. B. right side
21. A.
22. C. have the ability to stretch
23. A. Colander
24. C. washing utensils immediately after use
25. D. rickets
26. C. protein
27. D. 8 to 10 minutes
28. C. steamed
29. C. the boiling water must not touch the food
30. B. shape and colour

June 2016

**BASIC DESIGN AND TECHNOLOGY 2
(Home Economics 2)**

Essay

1 hour

**SECTION A
(CORE SKILLS)**

[20 marks]

Answer question 1 [COMPULSORY]

1. (a) List **four stitches that can be used for neatening as well as embroidery work**

.....
.....
.....
.....

[4 marks]

(b) List **four dishes which are easily contaminated**

.....
.....
.....
.....

[2 marks]

(c) (i) List **three sources where information can be obtained to solve design problems**

.....
.....
.....
.....

(ii) List **two methods of drawing objects in pictorial views**

.....
.....

.....
.....

(iii) List **two** causes of weaknesses in wooden chairs

.....
.....
.....
.....

[7 marks]

(d) (i) State **one** use of **each** of the elements listed below in a design

1. Shape:

.....
.....

2. Colour

.....
.....

3. Space:

.....
.....

4. Texture:

.....
.....

[4 marks]

(ii) Explain what a sketch is.

.....
.....
.....
.....

[2 marks]

(iii) State **one** reason why it is necessary to use a sketch when producing an object

.....
.....
.....

[1 mark]

SECTION B
[50 marks]

*Answer **two** questions **only** from this section*
All questions carry equal marks

2. (a) The passage below is the preparation and setting-in of a shirt sleeve in a blouse. Fill in the blank spaces with the following words provided below.

Press, sleeve-head, shoulder, stitch, ease-in, neaten, rows, hem, underarm, right sides

Make twoof gathering stitches between the front and back sleeve, just above the seam line. Join theseam and neaten.out seam. Turn theof the sleeve. Find the centre of the sleeve and mark on theInsert the right side of the sleeve into the sleeve into the armhole of the blouse withfacing. Match the centre of the sleeve to theseam and match the underarm seams. Pin,by pulling the two rows of gathering stitches to fit sleeve into the armhole and tack.in position along the seamline and then in between the two rows of gathering stitches. Trim and

[10 marks]

- (b) State **two** reasons for taking body measurements when sewing a shirt.

.....
.....
.....
.....

[4 marks]

- (c) State **three** guidelines in taking body measurements

.....
.....
.....
.....

[6 marks]

- (d) List **five** different types of materials used for making garments.

.....

.....

.....

.....

.....

3. (a) Use the underlisted methods of cooking to fill the table below and give an example of food cooked by **each** method.

boiling, baking, stewing, grilling, frying, microwave, steaming, poaching, pressure cooking, roasting

Dry Method	Example of food	Moist Method	Example of food

(b) Explain the term nutrients

.....

.....

.....

.....

(c) List **four** nutrients that can be found in food and give **two** examples of **each** nutrient.

Nutrient	Example of Nutrient

4. (a) List the ingredients needed for the preparation of *koose*.

.....
.....
.....
.....

(b) State in **eight** steps the preparation of *koose*.

.....
.....
.....
.....
.....
.....
.....
.....

(c) Mention **four** different articles that can be remodeled from a gathered skirt of a grown up lady.

.....
.....
.....
.....

June 2016

BASIC DESIGN AND TECHNOLOGY 2 (Home Economics 2)

Essay

ANSWERS

1. (a) List **four** stitches that can be used for neatening as well as embroidery work
- (i) Hemming stitch
 - (ii) Herring bone stitch
 - (iii) Loop stitches
 - (iv) Over casting
- [4 marks]
- (b) List **four** dishes which are easily contaminated
- (i) Boiled rice
 - (ii) Okro soup
 - (iii) Groundnut soup
 - (iv) Fufu
 - (v) Egg stew
 - (vi) Kontonmire stew
- [2 marks]
- (c) (i) List **three** sources where information can be obtained to solve design problems
- (i) Magazines
 - (ii) Newspapers
 - (iii) Designing textbooks
 - (iv) Experts of designers
 - (v) Old designs and workshops
 - (vi) The internet
 - (vii) The television
- (ii) List **two** methods of drawing objects in pictorial views
- (i) Isometric drawing
 - (ii) Oblique drawing
 - (iii) Perspective drawing
- (iii) List **two** causes of weaknesses in wooden chairs
- (i) Missing nails in joints.
 - (ii) Loose and broken dowels (wooden pins) in joints.
 - (iii) Rusted nails

- (iv) Rotten wood
- (v) Expired or bad or insufficient adhesive glue used in joints
- (vi) Broken tenon, tongue and braces in joints.

[7 marks]

- (d) (i) State **one** use of **each** of the elements listed below in a design
1. Shape: - to determine the type, figure and formation of objects in designing
 2. Colour : - to determine the aesthetic beauty and appearance of a design.
 3. Space: - to determine the size (height, length, width, volume or area) of a design
 4. Texture: - to determine the smoothness and roughness of surfaces a design

[4 marks]

- (ii) Explain what a sketch is.
- A sketch is a rough drawing to quickly express a more finished picture or object.
It is usually not drawn to scale, thus, the proportions are judged by the eye.
It is usually made by freehand using pencil or pen.

[2 marks]

- (iii) State **one** reason why it is necessary to use a sketch when producing an object
- To quickly express design ideas for clients or users
 - To serve as a guide to the artisan or manufacturer when making the object
 - To generate different design ideas from which one can choose
 - To save time and materials when producing the object

[1 mark]

SECTION B

[50 marks]

Answer two questions only from this section
All questions carry equal marks

2. (a) The passage below is the preparation and setting-in of a shirt sleeve in a blouse. Fill in the blank spaces with the following words provided below.

[Press, sleeve-head, shoulder, stitch, ease-in, neaten, rows, hem, underarm, right sides]

Make two **rows** of gathering stitches between the front and back sleeve, just above the seam line. Join the **sleeve-head** seam and neaten. **Press** out seam. Turn the **right sides** of the sleeve. Find the centre of the sleeve and mark on the **underarm**. Insert the right side of the sleeve into the armhole of the blouse with **hem** facing. Match the centre of the sleeve to the **shoulder** seam and match the underarm seams.

Pin, **ease-in** by pulling the two rows of gathering stitches to fit sleeve into the armhole and tack. **Stitch** in position along the seamline and then in between the two rows of gathering stitches. Trim and **neaten**.

[10 marks]

(b) State **two** reasons for taking body measurements when sewing a shirt.

- (i) for the shirt to fit well on body
- (ii) to avoid waste of fabric
- (iii) to save time and materials when sewing the shirt
- (iv) to sew the shirt accurately

[4 marks]

(c) State **three** guidelines in taking body measurements

- (i) Ensure correct posture of wearer
- (ii) The wearer must be in close-fitting clothes
- (iii) Use a tape measure that has clear markings and does not stretch
- (iv) The tape measure must be firmly in place for accurate measurements
- (v) Record each measurement as soon as it is taken

[6 marks]

(d) List **five** different types of materials used for making garments.

- (i) fabric for the garment
- (ii) thread
- (iii) peter sham
- (iv) skirt bands
- (v) shoulder pad
- (vi) tapes and fasteners
- (vii) interfacing
- (viii) cuffs and belts

3. (a) Use the underlisted methods of cooking to fill the table below and give an example of food cooked by **each** method.

boiling, baking, stewing, grilling, frying, microwave, steaming, poaching, pressure cooking, roasting

Dry Method	Example of food	Moist	Example of food
------------	-----------------	-------	-----------------

		Method	
baking	Bread, cake, ofam, biscuits	Boiling	Yam, rice, fish, meat
grilling	Fish, meat, chicken, yam	Stewing	Fish, meat, fruits, vegetables
microwave	Cake, bread and batter pudding, fish	Poaching	Eggs, fish
roasting	Groundnut, plantain, cocoyam	Frying	Fish, meat, yam, plantain
		Steaming	Fish, kenkey, tubani, abolloo
		Pressure cooking	Carrot,beans,beef,tough cuts of meat

- (b) Explain the term nutrients
Nutrients are chemical substances that help the body of a living organism to function well
- (c) List **four** nutrients that can be found in food and give **two** examples of **each** nutrient.

Nutrient	Example of Nutrient
protein	Collagen, Myosin, Keratin, Thrombin, elastin, haemoglobin
minerals	Calcium, iron, sodium, phosphorus, zinc, potassium, copper
carbohydrate	Sugars (glucose, fructose, lactose, maltose), starch, cellulose
vitamins	Retinol (vitamin A), thiamine (vitamin B1), riboflavin (vitamin B2), niacin (vitamin B3), folic acid (vitamin B9), ascorbic acid (vitamin C), vitamin D, vitamin E, vitamin K

4. (a) List the ingredients needed for the preparation of *koose*.

Beans flour, salt, pepper / ginger, onion and oil

- (b) State in **eight** steps the preparation of *koose*.
- (i) Mill beans into flour
 - (ii) Wash and grind or blend the pepper and onion
 - (iii) Pour beans flour into a mixing bowl
 - (iv) Add the blended pepper/ginger and onion
 - (v) Mix all into a smooth paste
 - (vi) Add a little water and salt and beat to introduce air
 - (vii) Fetch spoonfuls and deep fry in hot oil, turning occasionally till light brown
 - (viii) Remove when well cooked and drain off oil.
- (c) Mention **four** different articles that can be remodeled from a gathered skirt of a grown up lady.

- (i) a dress for a young girl
- (ii) a fitting skirt for a young lady
- (iii) a shirt for a boy
- (iv) a pair of shorts for a boy
- (v) a duster
- (vi) an apron
- (vii) a small table cover

June 2015

BASIC DESIGN AND TECHNOLOGY 1 (Home Economics 1)

Objective Test 40 minutes

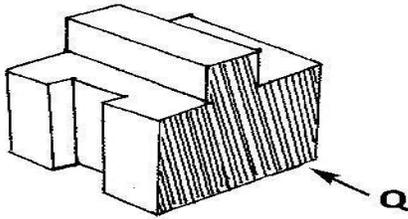
1. An example of a permanent stitch is
 - A. backstitch
 - B. basting
 - C. even tacking
 - D. tailors' tacks

2. The purpose of the napkin in table laying is to clean
 - A. sweat off the face
 - B. the mouth during eating
 - C. the plates before serving
 - D. the table after eating

3. Fish caught with chemicals may cause
 - A. diarrhoea
 - B. dysentery
 - C. poisoning
 - D. vomiting

4. Colours which are opposite to each other on the colour wheel are referred to as
 - A. analogous colours
 - B. complementary colours
 - C. cool colours
 - D. warm colours

5. An artist who has blue, red and yellow colours can obtain violet by mixing
 - A. all the three colours
 - B. blue with green
 - C. red with blue
 - D. yellow with blue



6. The type of projection used for the drawing is the
- A. first angle projection
 - B. isometric projection
 - C. oblique projection
 - D. third angle projection
7. The view arrowed **Q** represents the
- A. front elevation
 - B. plan
 - C. left end view
 - D. right end view
8. A sketch is a
- A. collection of different lines
 - B. drawing made with pencil
 - C. finished detailed drawing
 - D. quick drawing in few lines
9. A developed cylinder shows a
- A. circle
 - B. rectangle
 - C. square
 - D. triangle
10. Which of the following describes the strength and weakness of a design?
- A. Specification
 - B. Investigation
 - C. Evaluation
 - D. Analysis
11. Shading is a rendering technique used to create
- A. outlines
 - B. painting
 - C. pictures
 - D. tones
12. When a problem is described within any environment, it is termed as
- A. brief
 - B. situation

- C. solution
 - D. specification
13. A place where artworks are displayed and sold is a
- A. gallery
 - B. museum
 - C. studio
 - D. workshop
14. Texture, colour and shape in a design are referred to as
- A. elements
 - B. ideas
 - C. objects
 - D. principles
15. The safest way of keeping one's daily sales is by
- A. depositing it at the bank
 - B. giving it to mother for safe keeping
 - C. keeping it in an envelope
 - D. putting it under the sewing machine
16. The pinking shears is useful for
- A. cutting out motifs
 - B. cutting out pattern pieces
 - C. neatening seams
 - D. trimming turnings
17. A stiletto is used for
- A. cutting buttonholes
 - B. darning
 - C. patching
 - D. punching eyelet holes
18. Corduroy is a fabric produced from
- A. cotton fibres
 - B. linen fibres
 - C. silk fibres
 - D. woollen fibres
19. The **most** suitable seam for making a boy's jeans is
- A. double-stitched seam
 - B. dressmaker's seam
 - C. French seam
 - D. overlaid seam
20. The amount of fabric needed to make a six year old girl's uniform is determined by

- A. her height
 - B. her size
 - C. the school she attends
 - D. the width of fabric
21. Tapes are used as fastenings on garments for
- A. babies
 - B. school children
 - C. teenagers
 - D. the aged
22. The **main** purpose of repairing a garment is to
- A. alter the style
 - B. beautify it
 - C. prevent waste
 - D. prolong its lifespan
23. The most appropriate equipment used in draining off fat when frying fish on a large scale
- A. cane basket
 - B. colander
 - C. metal sieve
 - D. strainer
24. Scalds are caused by
- A. dry heat
 - B. shocks
 - C. suffocation
 - D. wet heat
25. In Ghana, for easy transportation and marketing, fresh fish is often preserved by
- A. canning
 - B. drying
 - C. pickling
 - D. smoking
26. Peeled banana left in the open changes colour due to
- A. activities of yeast
 - B. enzyme action
 - C. fermentation
 - D. oxidation
27. Dishes cooked by poaching and steaming are
- A. easily digested
 - B. easy to handle
 - C. very attractive
 - D. very palatable

28. is a method of cooking in which the heat gets to food directly.

- A. Baking
- B. Boiling
- C. Grilling
- D. Stewing

29. A set of menu forming a complete meal at a set price is termed

- A. a la carte
- B. ethnic menu
- C. special party menu
- D. table d'hote

30. The advantage of taking breakfast is that it

- A. helps to keep the body warm
- B. helps one to perform physical activities better
- C. makes meals more appetizing
- D. makes meals more nutritious

June 2015

BASIC DESIGN AND TECHNOLOGY 1 (Home Economics 1)

Objective Test

ANSWERS

1. A. backstitch
2. B. the mouth during eating
3. C. poisoning
4. B. complementary colours
5. C. red with blue
6. D. third angle projection
7. A. front elevation
8. D. quick drawing in few lines
9. B. rectangle
10. C. Evaluation
11. D. tones
12. B. situation
13. A. gallery
14. A. elements
15. A. depositing it at the bank
16. C. neatening seams
17. D. punching eyelet holes
18. A. cotton fibres
19. A. double-stitched seam
20. D. her size
21. A. babies
22. D. prolong its lifespan
23. A. cane basket
24. D. wet heat
25. D. smoking
26. D. oxidation
27. A. easily digested
28. C. Grilling
29. D. table d'hote
30. B. helps one to perform physical activities better

June 2015

BASIC DESIGN AND TECHNOLOGY 2
(Home Economics 2)

Essay

1 hour

SECTION A
(CORE SKILLS)

[20 marks]

Answer question 1 [COMPULSORY]

1. (a) State **one** reason why a dressmaker would use a double stitch for fastening on a stitch instead of a knot.

.....
.....

[2 marks]

- (b) List **two** suitable **each** methods of preserving the following food items:

- (i) plantain
-
- (ii) mango
-

[4 marks]

- (c) (i) Complete the table below by providing one suitable instrument for carrying out each of the operations listed:

Operation	One suitable instrument
Drawing a horizontal line	
Drawing a circle	
Measuring an angle	

- (ii) Sketch the following geometrical solids:

- (α) cylinder



- (β) cone



- [7 marks]
- (d) (i) What is an exhibition?
-
-
- [2 marks]
- (ii) Give **two** reasons why artworks are exhibited
-
-
- [2 marks]
- (iii) List **two** types of exhibition
-
-
- [2 marks]
- (iv) State **one** major difference between the two types of exhibition in (a)(iii) above.
-
-
- [1 marks]

SECTION B
[50 marks]

Answer two questions only from this section
All questions carry equal marks

- 2.** (a) List **three** style features that can be used on a garment
- (i)
- (ii)
- (iii)
- [3 marks]
- (b) State **four** point to consider when choosing a style feature.
- (i)
- (ii)
- (iii)
- (iv)
- [8 marks]
- (c) List **six** methods that can be used in finishing the hem of a sleeve

- (i)
- (ii)
- (iii)
- (iv)
- (v)
- (vi)

[6 marks]

(d) State **four** functions of collars

- (i)
- (ii)
- (iii)
- (iv)

[8 marks]

3. (a) List **four** methods of cooking food.

- (i)
- (ii)
- (iii)
- (iv)

[4 marks]

(b) Give **two** examples each of foods that can be cooked with each method stated in (a) above

- (i)
- (ii)
- (iii)
- (iv)

[4 marks]

(c) The passage below are steps in the preparation of *Kakro*. Fill in the blank spaces with the suitable words provided below:

pound, mortar, lumps, kitchen paper, peel, clean, ground, deep pan, mixture, golden brown.

Wash over-ripped plantain and Cut into pieces and put into until free from Put pounded plantain into a bowl. Add onion, ginger, pepper and salt, mix in flour and leave for a while. Put cooking oil into a ,place on fire until hot. Mould the into the hot oil, turn *Kakro* when necessary. When well cooked and remove from oil. Drain on a placed in a colander. Dish up and serve.

(d) What is *food poisoning*?

.....

.....

[2 marks]

(e) State **five** causes of food spoilage.

(i)

(ii)

(iii)

(iv)

(v)

[5 marks]

4. (a) What is an *open seam*?

.....

.....

[2 marks]

(b) State **three** reasons for taking body measurements.

(i)

(ii)

(iii)

[6 marks]

(c) State **four** signs of food spoilage

(i)

(ii)

(iii)

(iv)

[8 marks]

(d) Give the **correct** order of writing a two-course menu

(i)

(ii)

(iii)

[3 marks]

(e) State **three** points to consider when purchasing vegetable.

(i)

(ii)

(iii)

[6 marks]

END OF ESSAY TEST

June 2015

BASIC DESIGN AND TECHNOLOGY 2 (Home Economics 2)

Essay

ANSWERS

1. (a) One reason why a dressmaker would use a double stitch for fastening on a stitch instead of a knot.

To make the fastening neat and firm

To prevent the stitches from removing easily

(b) List two suitable methods each of preserving the following food items:

(i) **Plantain**

Drying and pounded into powder

Putting it in the freezer

(ii) **Mango**

Addition of safe preservatives (juice)

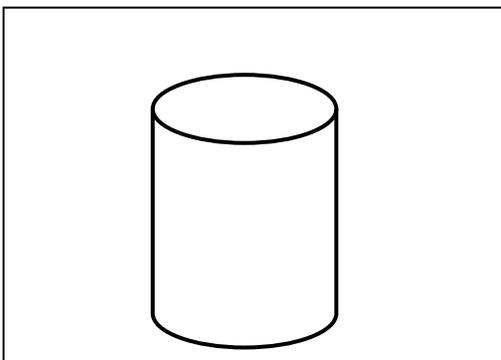
Application of high heat (Canned fruits)

(c) (i) Complete the table below by providing one suitable instrument for carrying out each of the operations listed:

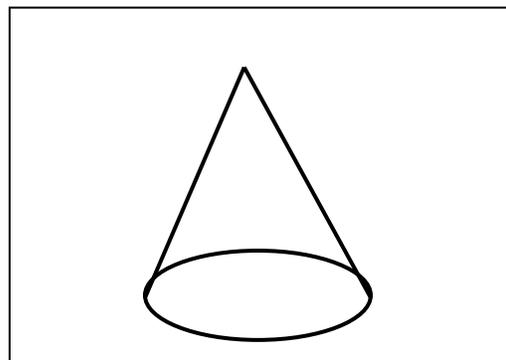
Operation	One suitable instrument
Drawing a horizontal line	Tee square
Drawing a circle	Pair of compasses
Measuring an angle	Protractor

(ii) Sketch the following geometrical solids:

(α) cylinder



(β) cone



[7 marks]

(d) (i) What is an exhibition?

A public display of works of art or items of interest, held in an art gallery or museum or at a trade fair.

(ii) Give two reasons why artworks are exhibited

To sell the artworks

To explain artworks to clients for them to appreciate it better.

To receive feedback (observations from clients) on ones artworks.

To establish contacts with potential buyers and/or investors

To network with other artists

To promote future events

[2 marks]

(iii) List two types of exhibition

General exhibition

Specialized exhibition

[2 marks]

(iv) State one major difference between the two types of exhibition in (a)(iii) above.

General exhibition involves exhibits of all kinds

Specialized exhibition involves exhibits of a specific type / category

[1 marks]

SECTION B

[50 marks]

Answer two questions only from this section

All questions carry equal marks

2. (a) List three style features that can be used on a garment

(i) Collars

(ii) Sleeves

(iii) Pockets

[3 marks]

(b) State four points to consider when choosing a style feature.

- (i) The type of garment.
- (ii) The wearer (sex / age / size / status , etc)
- (iii) The suitability of style feature for the garment.
- (iv) The purpose or use of the style feature.

(c) **List six methods that can be used in finishing the hem of a sleeve**

[6 marks]

(d) **State four functions of collars**

- (i) It helps to beautify the garment.
- (ii) It gives warmth to the neck.
- (iii) It makes a shirt more formal.
- (iv) It helps make the clothing fit properly.
- (v) It helps to maintain the shape of the garment.

3. (a) **List four methods of cooking food.**

- (i) Boiling.
- (ii) Steaming.
- (iii) Frying.
- (iv) Baking.

(b) **Give two examples each of foods that can be cooked with each method stated in (a) above**

- (i) plantain and rice
- (ii) Kenkey and tubani.
- (iii) Fish and egg.
- (iv) Bread and cake.

(c) The passage below are steps in the preparation of *Kakro*. Fill in the blank spaces with the suitable words provided below:

pound, mortar, lumps, kitchen paper, peel, clean, ground, deep pan, mixture, golden brown.

Wash over-ripened plantain and peel. Cut into pieces and put into mortar. Pound until free from lumps. Put pounded plantain into a clean bowl. Add ground onion, ginger, pepper and salt, mix in flour and leave for a while. Put cooking oil into a deep pan. place on fire until hot. Mould the mixture into the hot oil, turn *Kakro* when necessary. When well cooked and golden brown, remove from oil. Drain on a kitchen paper placed in a colander. Dish up and serve.

(d) **What is *food poisoning*?**

It is the disorder or disease that results from eating contaminated foods.

[2 marks]

(e) **State five causes of food spoilage.**

Enzyme action
Moulds activity
Yeasts activity
Bacteria activity
Insect infestation

4. (a) What is an *open seam*?

This is the basic seam from which many other seams are made.

[2 marks]

(b) State three reasons for taking body measurements.

- (i) To get the correct shape, fit and size of garment.
- (ii) To save time and energy since the correct shape and size of garment is already known.
- (iii) Prevent wastage of garment.

(c) State four signs of food spoilage

- (i) Unpleasant smell
- (ii) Moisture loss.
- (iii) Loss of flavour.
- (iv) Change of colour.

[8 marks]

(d) Give the correct order of writing a two-course menu

- (i) Main dish (protein dish).
- (ii) Accompaniment (carbohydrate part).
- (iii) Dessert.

[3 marks]

(e) State three points to consider when purchasing vegetable.

- (i) It should be fresh and not withered.
- (ii) It should not be over-ripe.
- (iii) It should be free from cuts, bruises and dirt.

June 2014

BASIC DESIGN AND TECHNOLOGY 1

(Home Economics 1)

Objective Test

40 minutes

1. To hold a lining onto a fabric temporarily, one can use
 - A. basting
 - B. even tacking
 - C. tailor's tacks
 - D. thread marking

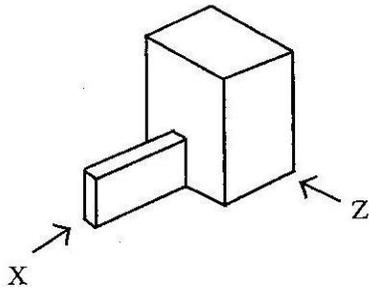
2. Which of the following stitches can be used to neaten raw edges of a set-in-sleeve?
 - A. Feather
 - B. Fishbone
 - C. Herringbone
 - D. Loop

3. The goiter on Evelyn's neck is caused by lack of
 - A. calcium
 - B. iodine
 - C. protein
 - D. vitamin

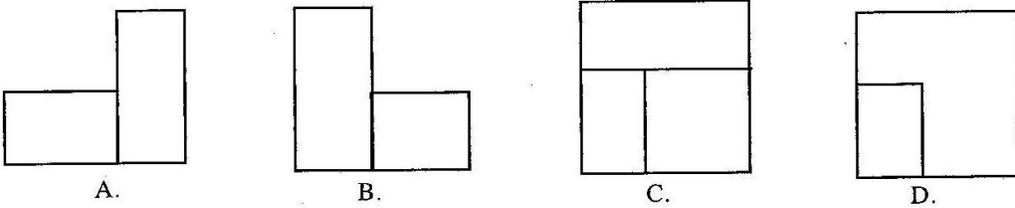
4. Man-made elements represented in art include
 - A. branches
 - B. rivers
 - C. stones
 - D. walls

5. The visitors' book signed at exhibitions helps the exhibitor to know the
 - A. dignitaries who attended
 - B. number of works in high demand
 - C. observations made about the work
 - D. people who came

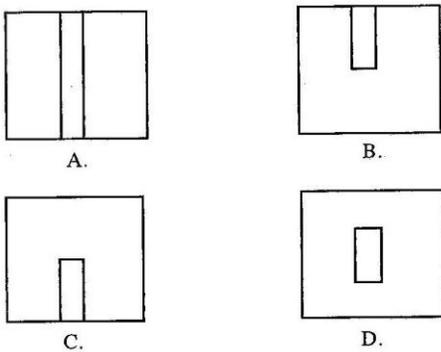
Use the sketch below to answer questions 6 and 7



6. Which of the following represents the front view in the direction of arrow **Z**?



7. Which of the following represents the left end elevation in the direction of arrow **X**?



8. A place where art works are sold is

- A. an archive
- B. a gallery
- C. a museum
- D. a studio

9. In design, the conditions that the final solution must satisfy is termed

- A. investigation
- B. specification
- C. development
- D. analysis

10. Which of the following instruments is **most** suitable for drawing horizontal lines?

- A. Tee-square
- B. Protractor
- C. Compass
- D. Set-square

Figure 2 shows a design process. Use it to answer questions 11 and 12

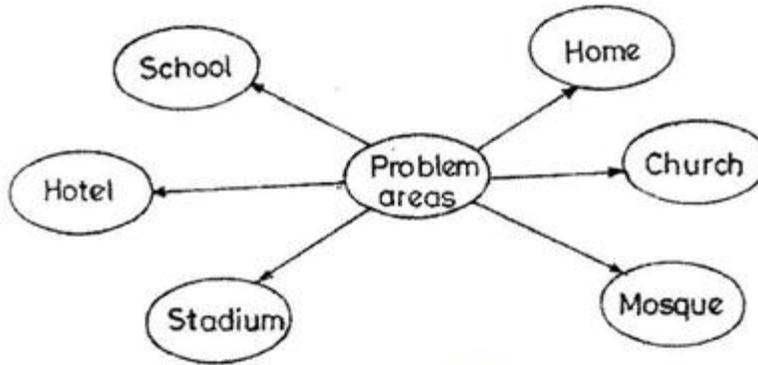


Figure 1

11. Figure 1 shows the method of
- A. specifying solutions
 - B. stating specification
 - C. evaluating artifact
 - D. identifying needs
12. Which of the following design process stages follows the method shown in figure 1?
- A. Writing specifications
 - B. Writing situation
 - C. Analyzing a situation
 - D. Sketching possible solutions
13. Shading with lines is described as
- A. cross hatching
 - B. hatching
 - C. stippling
 - D. tonal value
14. Which of the following colours produces a feeling of warmth?
- A. Blue
 - B. Green
 - C. Violet
 - D. White
15. Which of the following factors can cause a sewing business to collapse?
- A. Advertising
 - B. Insurance
 - C. Low sales
 - D. Skilled labour

16. Which of the following tools is used for drawing lines when drafting patterns?
- A. A pair of dividers
 - B. A protractor
 - C. Metre rule
 - D. Tape measure
17. It is better to use cotton fabrics for making specimen because it is
- A. beautiful
 - B. dirt resistant
 - C. durable
 - D. easy to handle
18. All vegetable fibres leave when burnt.
- A. ashes
 - B. charcoal
 - C. hard ball
 - D. soft ball
19. The most suitable fabric for making a bed sheet is
- A. cotton
 - B. nylon
 - C. rayon
 - D. silk
20. One can make an embroidered table runner if he or she learns
- A. designing
 - B. drawing
 - C. sewing
 - D. weaving
21. Which of the following measurement is needed when making a boy's pair of shorts?
- A. Back length
 - B. Chest
 - C. Crotch
 - D. Width
22. The commonest collar on babies' garment is
- A. Chinese
 - B. Peterpan
 - C. Shawl
 - D. Shirt
23. Which of the following are portions of control equipment?
- I. Measuring cups
 - II. Weighing scales

III. Polythene bags

IV. Empty tins

- A. I, II and III only
- B. I, II and IV only
- C. I, III and IV only
- D. II, III and IV only

24. Choice of equipment and tools is based on

- A. how difficult to clean and maintain
- B. lack of space for storage
- C. life span of equipment
- D. unavailability of spare parts

25. Moist heat causes to the human skin.

- A. bruises
- B. burns
- C. cuts
- D. scalds

26. Food preservation is the treatment given to foods to enable them stay fresh for

- A. a long time
- B. some days
- C. three days
- D. three weeks

27. The method of cooking in which heat travels directly to the food is

- A. baking
- B. boiling
- C. grilling
- D. stewing

28. The method of cooking which is fast but expensive to use is

- A. boiling
- B. frying
- C. grilling
- D. roasting

29. Which of the following are reasons for cooking food? To

- I. help food digest faster
- II. make the food edible
- III. make the food soft
- IV. make the food last longer

- A. I, II and III only

- B. I, II and IV only
- C. I, II and IV only
- D. II, III and IV only

30. The most important factor to consider when planning meals is the

- A. appearance of the food
- B. family budget
- C. food available
- D. service of the food

June 2014

BASIC DESIGN AND TECHNOLOGY 1 **(Home Economics 1)**

Objective Test

ANSWERS

1. B. even tacking
2. C. Herringbone
3. B. iodine
4. D. walls
5. C. observations made about the work
6. A.
7. C.
8. B. gallery
9. B. specification
10. A. Tee-square
11. D. identifying needs
12. D. Sketching possible solutions
13. B. hatching
14. C. Violet
15. C. Low sales
16. C. Metre rule
17. C. durable
18. A. ashes
19. A. cotton
20. D. weaving
21. C. Crotch
22. B. Peterpan
23. B. I, II and IV only
24. C. life span of equipment
25. D. scalds
26. A. a long time
27. C. grilling
28. B. frying
29. A. I, II and III only
30. B. family budget

June 2014

BASIC DESIGN AND TECHNOLOGY 2
(Home Economics 2)

Essay

1 hour

SECTION A
(CORE SKILLS)

[20 marks]

Answer question 1 [COMPULSORY]

1. (a) State the **main** method for cooking the following foods:

(i) rice

(ii) cake

(b) State **four** suitable methods for preserving fish.

.....
.....
.....
.....

(c) (i) List the type of pencil **most** suitable for the following operations:

OPERATION	PENCIL USED
Lettering	
Drawing outlines	
Shading	

(ii) List **four** methods of recording data for solving design problems.

.....
.....
.....
.....

(d) (i) State **three** benefits of packaging.

.....
.....
.....
.....

(ii) List **two** important information on a good package

.....
.....

(e) Draw a line to illustrate **each** of the following:

(i) movement

(ii) texture.

MOVEMENT	TEXTURE

SECTION B

[50 marks]

*Answer **two** questions **only** from this section*

All questions carry equal marks

2. The sketch below shows the style of a blouse Afua decides to make for sale.



(a) State **five** processes that will be used in making up the blouse.

.....
.....
.....
.....
.....

(b) State **five** cotton fabrics that can be used in making the blouse

.....

.....
.....
.....

(c) The cost of making one blouse is GHC 2.50. Work out the cost of fifteen blouses.

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.....
.....
.....
.....

(d) If Afua sells one blouse at GHC 3.75. Work out the **total** profit for the fifteen blouses

.....
.....
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.....
.....

3. (a) What is *boiling* as a method of cooking?

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.....
.....

(b) State **two** advantages of boiling as a method of cooking

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.....
.....

(c) State **two** disadvantages of boiling as a method of cooking

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.....

(d) List **ten** food items that can be cooked using the boiling method

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.....
.....

(e) List **two** examples **each** of food items which can be prepared with the following methods of cooking

METHOD OF COOKING	EXAMPLES
Stewing	
Frying	
Poaching	
Steaming	

(f) Plan a two course lunch menu for an adolescent using meat for the main dish and provide a suitable dessert

.....
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.....

4. (a) The passage below describes the threading of the sewing machine. Fill in the blank spaces with the appropriate words selected from the list below

balance wheel, spool pin, needle, tension disc, thread, reel, take-up-lever, second, first thread guide

Place the of thread on the Turn the so that the needle is at the highest point. Pass the thread through the at the top of the machine. Draw the thread through the to the Pass the thread through the thread guide and finally through the eye of the

(b) Mention the **main** types of sewing equipment

.....
.....
.....

(c) Give **two** examples of each type of sewing equipment mentioned in 4 (b) above

.....
.....
.....

(d) What is microwave cooking?

.....
.....
.....

(e) List **four** food items which can be cooked in a microwave

.....
.....
.....
.....

(f) State **one** reason for using microwave to cook

.....
.....

(g) State **two** advantages of microwave cooking

.....
.....
.....
.....

(h) State **two** disadvantages of microwave cooking

.....
.....
.....
.....

June 2014

BASIC DESIGN AND TECHNOLOGY 2 (Home Economics 2)

Essay

ANSWERS

1. (a) State the **main** method for cooking the following foods:

- (i) rice - Boiling
- (ii) cake - Baking

(b) State **four** suitable methods for preserving fish.

- Smoking
- Freezing.
- Salting.
- Drying.

(c) (i) List the type of pencil **most** suitable for the following operations:

OPERATION	PENCIL USED
Lettering	HB
Drawing outlines	H
Shading	2B, BB, 4B

(ii) List **four** methods of recording data for solving design problems.

- Taking notes (writing)
- Making a sketch / drawing
- Drawing tables and / or graphs
- Making a video recording
- Taking photographs

(d) (i) State **three** benefits of packaging.

- It protects the contents from damage and contamination
- It provides useful information about the contents
- It serves as a means of advertisement to attract buyers

(ii) List **two** important information on a good package

- The use / function of the content
- The manufacturing and expiry dates of the content
- The composition of the content

- (e) Draw a line to illustrate **each** of the following:
- (i) movement
 - (ii) texture.

MOVEMENT	TEXTURE
	*****

SECTION B
[50 marks]

*Answer **two** questions **only** from this section*
All questions carry equal marks

2. The sketch below shows the style of a blouse Afua decides to make for sale.



- (a) State **five** processes that will be used in making up the blouse.
- Arrangement of fullness
 - Collar making
 - Openings
 - Seam making
 - Fastening
 - Neatening
- (b) State **five** cotton fabrics that can be used in making the blouse

Denim.
Sateen.
Calico.
Poplin.
Muslin
Flannel

- (c) The cost of making one blouse is GHC 2.50. Work out the cost of fifteen blouses.

$$\text{Cost for one blouse} = \text{GHC } 2.50$$

$$\begin{aligned} \text{Hence, cost for fifteen blouses} &= 15 \times \text{GHC } 2.50 \\ &= \text{GHC } 37.50 \end{aligned}$$

- (d) If Afua sells one blouse at GHC 3.75. Work out the **total** profit for the fifteen blouses

$$\text{Profit} = \text{Selling price} - \text{Cost price}$$

$$\begin{aligned} \text{Profit for 1 blouse} &= \text{GHC } 3.75 - \text{GHC } 2.50 \\ &= \text{GHC } 1.25 \end{aligned}$$

$$\begin{aligned} \text{Hence, profit for 15 blouses} &= 15 \times 1.25 \\ &= \text{GHC } 18.75 \end{aligned}$$

2ND METHOD

$$\text{If selling price for 1 blouse} = \text{GHC } 3.75$$

$$\begin{aligned} \text{Then, selling price for 15 blouses} &= 15 \times \text{GHC } 3.75 \\ &= \text{GHC } 56.25 \end{aligned}$$

$$\begin{aligned} \text{Hence, Profit for 15 blouses} &= \text{Selling price} - \text{Cost price} \\ &= \text{GHC } 56.25 - \text{GHC } 37.50 \\ &= \text{GHC } 18.75 \end{aligned}$$

3. (a) What is *boiling* as a method of cooking?

Boiling is a method of cooking food in boiling water in a saucepan with a fitting lid at a temperature of 100 degrees Celsius

- (b) State **two** advantages of boiling as a method of cooking

Boiled foods are easily digestible.

It is economical

- (c) State **two** disadvantages of boiling as a method of cooking

Boiled foods are usually not attractive unless garnished.

Boiled foods go bad quickly, if not preserved well.

- (d) List **ten** food items that can be cooked using the boiling method
...Rice, banku, plantain, yam, cocoyam, cassava, potato, fish, meat, egg, maize, cowpea

- (e) List **two** examples **each** of food items which can be prepared with the following methods of cooking

METHOD OF COOKING	EXAMPLES
Stewing	Meat, carrots, cucumber, tomatoes
Frying	Fish and meat, yam, plantain
Poaching	Eggs and fish,
Steaming	Kenkey and fish, carrots, cucumber

- (f) Plan a two course lunch menu for an adolescent using meat for the main dish and provide a suitable dessert

Main meal (1st course): Brown beef stew and boiled rice.

Dessert (2nd course) : Pineapple upside down

ALTERNATIVE

Main meal (1st course): Mutton palmtree soup and fufu (pounded cassava and plantain)

Dessert (2nd course) : Sliced oranges

ALTERNATIVE

Main meal (1st course): okro stew with goat meat and banku

Dessert (2nd course) : mango juice

4. (a) The passage below describes the threading of the sewing machine. Fill in the blank spaces with the appropriate words selected from the list below

balance wheel, spool pin, needle, tension disc, thread, reel, take-up-lever, second, first thread guide

Place the ...**reel**... of thread on the ...**spool pin**.... Turn the ...**balance wheel**..... so that the needle is at the highest point. Pass the thread through the ...**first thread guide**.... at the top of the machine. Draw the thread through the ...**tension disc**..... to the ...**take-up-lever**.... Pass the thread through the ...**second**.....thread guide and finally through the eye of the ...**needle**..

- (b) Mention the **main** types of sewing equipment

Large sewing equipment

Small sewing equipment

- (c) Give **two** examples of each type of sewing equipment mentioned in 4 (b) above
Large equipment examples: ironing board and sewing machine.
Small equipment examples: tape measure, scissors, thread and needle
- (d) What is microwave cooking?
Is a method of cooking and reheating food by means of electromagnetic waves in a microwave oven powered by electricity.
- (e) List **four** food items which can be cooked in a microwave
Potatoes, Carrot, Meat, Fish, Oats, rice, beans, maize
- (f) State **one** reason for using microwave to cook
It cooks food fast,
It is easy / convenient to use.
- (g) State **two** advantages of microwave cooking
If properly set, it needs less attention
Food nutrients are conserved.
- (h) State **two** disadvantages of microwave cooking
The oven is expensive.
Food can be dried when not covered properly.
It cannot be used where there is no electricity

June 2013

BASIC DESIGN AND TECHNOLOGY 1 (Home Economics 1)

Objective Test 40 minutes

1. Which of the stitches can be used to hold down a hem decoratively?
 - A. Basting
 - B. Hemming
 - C. Herringbone
 - D. Overcasting

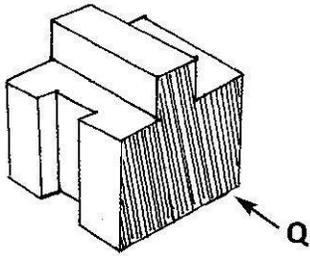
2. The advantage of buying food in bulk is that it
 - A. becomes abundant
 - B. becomes cheaper
 - C. is easier to choose
 - D. is easier to store

3. A balanced meal must contain
 - A. food from each food group
 - B. little fat and oil only
 - C. protective foods only
 - D. protein foods only

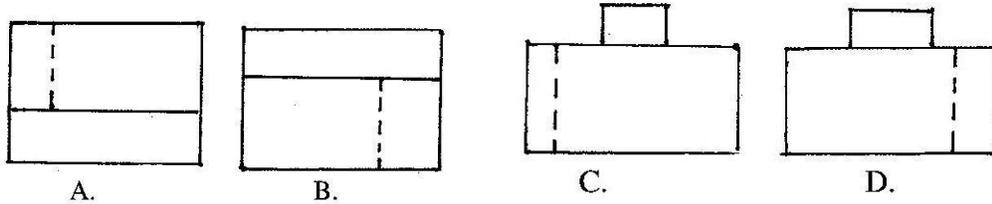
4. Drawing and painting are grouped under
 - A. landscape
 - B. still life
 - C. three-dimensional work
 - D. two-dimensional work

5. Identify the drawing tool from the following items
 - A. Crayon
 - B. Paper
 - C. Palette
 - D. Ruler

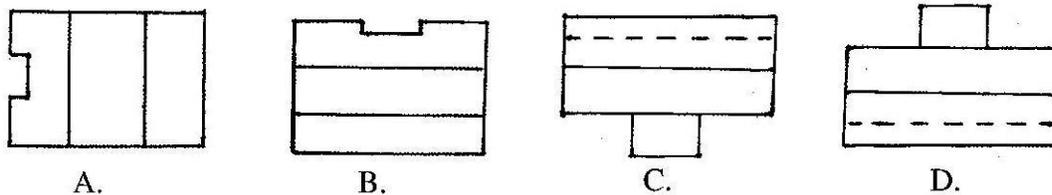
The figure below is a wooden block. Use it to answer Questions 6 and 7.



6. Which of the following represents the front view in the direction of arrow Q?



7. The plan is represented by



8. A sole proprietor

- A. shares profit with friends
- B. shares profit with a partner
- C. takes decisions alone
- D. takes decision with his staff

9. The statement describing the problem in designing is referred to as

- A. design brief
- B. design process
- C. situation
- D. investigation

10. Which of the following is **not** a type of joint for fixing parts of furniture

- A. movable joints
- B. unmovable joints
- C. Temporary joints
- D. permanent joints

11. In oblique drawing one side of the object is inclined at an angle of

- A. 30°
- B. 45°
- C. 60°
- D. 90°

12. In a circuit diagram, current flows from
- A. neutral to negative
 - B. neutral to positive
 - C. positive to negative
 - D. negative to positive
13. Select a neutral colour from the options below
- A. blue
 - B. orange
 - C. red
 - D. white
14. The first step in designing is
- A. choosing the right materials
 - B. colouring the sketches
 - C. identifying the problem
 - D. making sketch models
15. A dressmaker may also be skillful in
- I. embroidery making
 - II. furnishing homes beautifully
 - III. making beautiful paintings
 - IV. selecting materials for upholstery
- A. I, II and III only
 - B. I, II and IV only
 - C. I, III and IV
 - D. II, III and IV only
16. The basic items in a dressmaker's shop include
- A. embroidery machine and tracing wheel
 - B. long mirror and buttonhole maker
 - C. neatening machine and long meter rule
 - D. sewing machine and measuring tape
17. The presser foot on the sewing machine
- A. controls the thread from the bobbin
 - B. holds fabric in position
 - C. makes stitches straight
 - D. pushes fabric when stitching
18. A plain fabric is a better choice for a school uniform because it
- A. can be obtained in different colours
 - B. can suit a variety of skin colour
 - C. hardly fades

- D. is cheap
19. Cotton fabric are sulfurized to make them
- A. moth-resistant
 - B. shrink resistant
 - C. smooth
 - D. strong
20. A suitable neatening for the side seam of a school short is
- A. edge stitching
 - B. loop stitching
 - C. overcasting
 - D. pinking
21. A skirt hangs well on a figure if it is cut along the
- A. bias
 - B. cross
 - C. warp
 - D. weft
22. Renovating involves
- A. fixing new fasteners
 - B. inserting sleeves
 - C. making new articles out of an old garment
 - D. making patchwork out of old clothes
23. What must be done first before cleaning an electric cooker?
- A. close the oven
 - B. pour water over it
 - C. switch off the source of power
 - D. wipe burners with wet rag
24. A well ventilated kitchen prevents
- A. accidents
 - B. fatigue
 - C. hardwork
 - D. nausea
25. Which of the following pairs of food is for body building?
- A. cassava and beans
 - B. cocoyam and plantain
 - C. pawpaw and cabbage
 - D. groundnut and cowpea
26. The **most** common nutrient in the diet of most Ghanaians is
- A. carbohydrate

- B. fat
- C. protein
- D. vitamin

27. Which of the following flour is good for springroll?

- A. cassava flour
- B. corn flour
- C. rice flour
- D. wheat flour

28. A syrup is made from

- A. sugar and fruit juice
- B. sugar and milk
- C. sugar and water
- D. sugar, milk and water

29. The basic ingredients for pancake are:

- A. flour, baking powder and milk
- B. flour, butter and baking powder
- C. flour, eggs and liquid
- D. flour, fat, milk and sugar.

30. The **commonest** method of preserving fish is by

- A. adding vinegar
- B. drying
- C. smoking
- D. adding salt

June 2013

BASIC DESIGN AND TECHNOLOGY 1 **(Home Economics 1)**

Objective Test

ANSWERS

1. C. Herringbone
2. B. becomes cheaper
3. A. food from each food group
4. D. two-dimensional work
5. A. Crayon
6. C.
7. A.
8. C. takes decisions alone
9. C. situation
10. C. Temporary joints
11. B. 45°
12. C. positive to negative
13. D. white
14. C. identifying the problem
15. B. I, II and IV only
16. D. sewing machine and measuring tape
17. B. holds fabric in position
18. C. hardly fades
19. B. shrink resistant
20. C. overcasting
21. A. bias
22. C. making new articles out of an old garment
23. C. switch off the source of power
24. A. accidents
25. D. groundnut and cowpea
26. A. carbohydrate
27. D. wheat flour
28. C. sugar and water
29. C. flour, eggs and liquid
30. C. smoking

June 2013

**BASIC DESIGN AND TECHNOLOGY 2
(Home Economics 2)**

**Essay
1 hour**

**SECTION A
(CORE SKILLS)**

[20 marks]

Answer question 1 [COMPULSORY]

1. (a) State two functions of protein in the body
.....
.....
.....
- (b) List two ways by which patching can be done
.....
.....
.....
- (c) (i) Explain a design brief
.....
.....
.....
- (ii) List three methods of carrying out design investigations.
.....
.....
.....
- (iii) State two factors to consider when selecting the best solution from the generated possible solutions in designing.
.....
.....
.....
- (d) (i) What is the colour spectrum?

.....
.....
.....

(ii) List the three primary colours

.....
.....
.....

(iii) Explain secondary colours

.....
.....
.....

SECTION B

[50 marks]

Answer two questions only from this section

All questions carry equal marks

2. (a) State the main nutrients in the following food items:

Food	Main nutrients
Orange	
Cassava	
Liver	
Soft bones	
Kontomire	

(b) State **seven** points to be considered when planning a menu

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(c) Give **three** simple firefighting equipment found in a modern kitchen

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.....
.....

(d) List **six** fixed equipment found in a modern kitchen.

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(e) State **seven** ways to avoid burns and scalds in the kitchen

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.....

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.....

.....

3. (a) List a suitable fabric for making each of the following articles
wedding dress, a boy's pair of shorts, scarf, handkerchief, tea towel

Article	Suitable fabric
<i>wedding dress</i>	
<i>a boy's pair of shorts</i>	
<i>scarf</i>	
<i>handkerchief</i>	
<i>tea towel</i>	

(b) Fill in the blank spaces with the appropriate words provided below:
making, faults, tears, article, repairing, old, process.

Renovating is the of and mending such as breaks or in clothes and household articles. Remodelling is the process of making a new article out of an one.

(c) State **five** reasons for remodeling articles

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.....

.....

(d) Define *darning*

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.....
.....

(e) List **two** types of fibres

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.....

4. (a) Explain *scurvy*

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.....
.....

(b) State **four** signs and symptoms of scurvy

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.....
.....
.....

(c) List **six** food sources of vitamin C

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(d) Describe in **four** sentences how to clean a plain wooden chopping board

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.....
.....
.....

(e) State **four** ways of caring for articles made from natural fibres

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.....
.....
.....
.....

June 2013

BASIC DESIGN AND TECHNOLOGY 2 (Home Economics 2)

Essay

ANSWERS

1. (a) **State two functions of protein in the body**
It promotes growth and development.
It repairs worn out tissues in the body.
It provides energy in the absence of carbohydrates
It supports production of hormones and enzymes

- (b) **List two ways by which patching can be done**
 1. By hand
 2. By machine

- (c) (i) **Explain a design brief**
A short statement that expresses the solution to a problem
Or
A statement of what the designer intends to design and make
E.g,

- (ii) **List three methods of carrying out design investigations.**
By observing carefully
By visiting
By experimenting
By reading relevant literature
By interviewing
By surfing the internet

- (iii) **State two factors to consider when selecting the best solution from the generated possible solutions in designing.**
Its function / effectiveness
Its physical appearance (Aesthetics)
Its cost of designing and making
Its safety and suitability
Its durability

(d) (i) **What is the colour spectrum?**
The distribution of colours produced when white light is dispersed by a prism

(ii) **List the three primary colours?**
The primary colours for
(α) pigment: red, yellow and blue
(β) light (additive): red, green and blue
(γ) light (subtractive): magenta, cyan and yellow

(iii) **Explain secondary colours**
A colour resulting from the mixing of two primary colours in equal proportions

For pigment, the secondary colours are

Violet = (red + blue),
green = (yellow + blue) and
orange = (red + yellow)

For light (additive), the secondary colours are

Yellow = (green + red)
Cyan = (green + blue)
Magenta = (red + blue)

For light (subtractive), the secondary colours are:

Red = (yellow + magenta)
Green = (yellow + cyan)
Blue = (magenta + cyan)

SECTION B

[50 marks]

Answer **two** questions **only** from this section

All questions carry equal marks

2. (a) State the main nutrients in the following food items:

Food	Main nutrients
Orange	Vitamin C
Cassava	Carbohydrate
Liver	Protein, Iron
Soft bones	Calcium
Kontonmire	Iron, Vitamin A

(b) State **seven** points to be considered when planning a menu

The nutritional needs of the consumers
 The time available for food preparation
 The time of the day (for consumption of meal)
 The food items available
 The money available for food preparation
 The cooking equipment available
 The number of consumers
 The number of courses
 The occasion
 The type of customers (their preferences)

(c) Give **three** simple firefighting equipment found in a modern kitchen

A bucket full of sand
 A fire extinguisher
 A fire blanket
 Fire extinguishing ball

(d) List **six** fixed equipment found in a modern kitchen

Cabinet
 Sink
 Freezer
 Cooker
 Fryers
 Working tables
 Shelves

(e) State **seven** ways to avoid burns and scalds in the kitchen

Lift lid of saucepan towards you
 Handles of saucepans should be turned away from traffic.
 Use dry cloth to handle or hold hot pots or pans.
 For deep frying, saucepan should not be more than half full of oil.
 Hot liquids should not be lift around.
 Cover kettle before pouring liquid through the spout.
 When frying, place food gently into hot oil.
 Gas cylinders must be turned off immediately after use.
 Use oven gloves and pot holders to hold hot trays and pans
 Wear protective clothing which fits well to avoid catching fire.

5. (a) List a suitable fabric for making each of the following articles
wedding dress, a boy's pair of shorts, scarf, handkerchief, tea towel

Article	Suitable fabric
<i>wedding dress</i>	Satin, chiffon, linen

<i>a boy's pair of shorts</i>	Cotton, khaki
<i>scarf</i>	Nylon, polyester, silk
<i>handkerchief</i>	Cotton, polyester, linen
<i>tea towel</i>	Cotton, linen

- (b) Fill in the blank spaces with the appropriate words provided below:
making, faults, tears, article, repairing, old, process.

Renovating is the **process** of **repairing** and mending **faults** such as breaks or **tears** in clothes and household articles.

Remodelling is the process of **making** a new **article** out of an **old** one.

- (c) State **five** reasons for remodeling articles

To save money.

To avoid wastage.

To make good use of leisure time.

To prolong the lifespan of the article.

To show creativity.

To earn more money

To make the article become more useful (to use the article for other purposes)

- (d) Define *darning*

It is the act of repairing torn garment or article by weaving thread into the torn portion of the garment or article.

- (e) List **two** types of fibres

Natural fibre.

Artificial / Synthetic (Man-made) fibre

6. (a) Explain *scurvy*
 It is a disease caused by lack of vitamin C

- (b) State **four** signs and symptoms of scurvy
 Swollen and/or Bleeding gums
 Pains in the joints.
 Wounds heal slowly or not at all
 Loss of appetite
 Fatigue (feeling tired and weak)
 Skin disorders

- (c) List **six** food sources of vitamin C
 Baobab fruit
 Orange
 Tangerine

Lemon
Lime
Tomato
Grapefruit
Strawberry
Pineapple
Green leafy vegetables (eg, Kontomire)

- (d) Describe in **four** sentences how to clean a plain wooden chopping board
Apply warm water and detergent on the surface (Salt and lime/lemon can also be used)
Scrub the surface along the grain direction using a bench scraper / palate knife / brush
Rinse the surface with clean water.
Dry in a well-ventilated place
- (e) State **four** ways of caring for articles made from natural fibres
Wash white articles separately from coloured ones.
Wash with warm water.
Wash with mild detergent or soap to prevent fading
Rinse thoroughly with clean water
Read and follow instructions on label
Dry and store in a cool dry place
Remove stains using a colour-safe stain remover.

April 2012

BASIC DESIGN AND TECHNOLOGY 1 (Home Economics 1)

Objective Test 40 minutes

1. Which of the sets are temporary stitches?
 - A. Basting and tacking
 - B. Hemming and basting
 - C. Tacking and hemming
 - D. Tacking and running
2. The main vitamin Ama gets when she eats oranges is
 - A. vitamin C
 - B. vitamin D
 - C. vitamin E
 - D. vitamin K
3. Crockery is a collection of
 - A. forks and spoons
 - B. glasses and spoons
 - C. plates and forks
 - D. plates and glasses
4. The arrangement of the shapes in a picture is known as:
 - A. blending
 - B. composition
 - C. drawing
 - D. toning
5. Which of the following colours produces a feeling of coolness?
 - A. blue
 - B. orange
 - C. violet
 - D. white
6. The aspect of analysis which considers the appearance of an artefact is known as
 - A. aesthetics
 - B. construction
 - C. ergonomics

D. function

7. In designing, possible solutions are generated by the use of

- I. observation
- II. drawing
- III. sketches

Which of the following options are correct?

- A. I and II only
- B. II and III only
- C. I and III only
- D. I, II and III

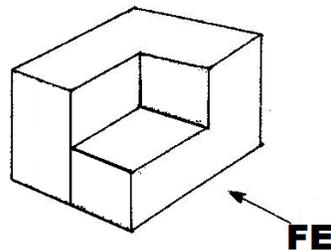
8. Drawing of an object starts with

- A. colour
- B. line
- C. shape
- D. texture

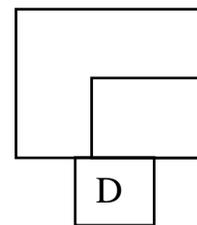
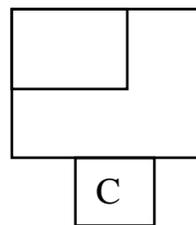
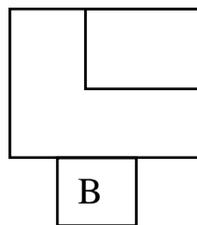
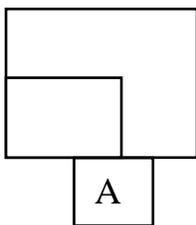
9. Which of the following colours is used to represent an earth wire?

- A. blue
- B. brown
- C. red
- D. yellow

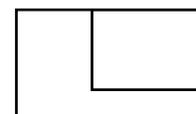
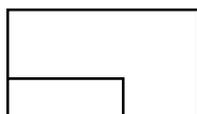
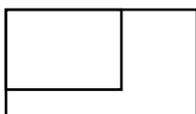
The figure below is a wooden block. Use it to answer question 10 and 11



10. Which of the following views represent the plan?



11. The left-end view is represented by



12. Weakness on a joint of furniture may be due to
- A. excessive glueing
 - B. hammering hard
 - C. missing nail
 - D. over polishing
13. Which of the following options suggest a dot in nature?
- A. a cube of sugar
 - B. a grain of sand
 - C. footpath lane
 - D. Veins of a leaf
14. The B range of pencils are the
- A. finest
 - B. hardest
 - C. smoothest
 - D. softest
15. Mounting an exhibition enables the dressmaker to
- I. show her handiwork
 - II. attract customers
 - III. increase her income
 - IV. show her generosity
- A. I, II and III only
 - B. I, II and IV only
 - C. II and IV
 - D. III and IV only
16. The movement of the sewing machine needle is controlled by the
- A. tension disc
 - B. needle clamp
 - C. balance wheel
 - D. bobbin winder
17. Which of the following **best** explains why Ama's woolen cardigan shrunk? It was
- A. washed with warm water
 - B. dried in the shade
 - C. washed with hot soapy water
 - D. pressed with a warm iron

18. Burnt silk smells like burnt hair because it originates from a/an
- A. vegetable source
 - B. synthetic source
 - C. regenerated source
 - D. animal source
19. One disadvantage of nylon in warm climate is that it
- A. becomes weak when wet
 - B. cannot stand frequent laundering
 - C. is a good conductor of heat
 - D. is absorbent
20. Which of the following stitches must be worked on only the wrong side of an article?
- A. hemming
 - B. loop
 - C. overcasting
 - D. running
21. A long sleeve shirt can be renovated into a sleeve
- A. kimono
 - B. puff
 - C. ragan
 - D. short
22. Which of the following sets comprises career opportunities for sewing students?
- A. Dressmaking, computer programming and basketry
 - B. Dressmaking, hair dressing and interior decorating
 - C. Dressmaking, tailoring and teaching
 - D. Tailoring, catering and computer programming
23. The **commonest** tool in the kitchen is the
- A. cooker
 - B. cook's knife
 - C. food safe
 - D. shelf
24. The **main** use of the colander is for
- A. draining
 - B. sifting
 - C. steaming
 - D. straining
25. Scalds are caused by
- A. candle light
 - B. coal pot fire

- C. gas fire
- D. hot water

26. Food is garnished **mainly** to make it:

- A. attractive
- B. balanced
- C. delicious
- D. nutritious

27. A meal served at mid-morning or mid-afternoon is known as

- A. breakfast
- B. brunch
- C. elevenses
- D. snack

28. Conduction is a

- A. way of heat transfer
- B. method of cooking
- C. way of preparing food
- D. method of preserving food

29. A basic flour mixture is known as

- A. batter
- B. pancake
- C. queen cake
- D. rock bun

30. Portion control helps the caterer to

- I. avoid waste of food
- II. cut down cost of food
- III. buy good food
- IV. make profit on food sold

- A. I. and III only
- B. II, III and IV only
- C. I, II and IV only
- D. II and III only

April 2012

BASIC DESIGN AND TECHNOLOGY 1 (Home Economics 1)

Objective Test

ANSWERS

1. A. Basting and tacking
2. A. vitamin C
3. D. plates and glasses
4. B. composition
5. A. blue
6. A. aesthetics
7. B. II and III only
8. B. line
9. D. yellow
10. A.
11. C.
12. C. missing nail
13. B. a grain of sand
14. D. softest
15. A. I, II and III only
16. C. balance wheel
17. C. washed with hot soapy water
18. D. animal source
19. C. is a good conductor of heat
20. A. hemming
21. D. short
22. C. Dressmaking, tailoring and teaching
23. B. cook's knife
24. D. straining
25. D. hot water
26. A. attractive
27. B. brunch
28. A. way of heat transfer
29. A. batter
30. C. I, II and IV only

April 2012

**BASIC DESIGN AND TECHNOLOGY 2
(Home Economics 2)**

Essay

1 hour

**SECTION A
(CORE SKILLS)**

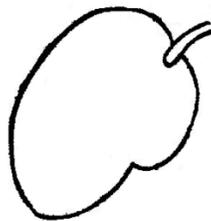
[20 marks]

Answer question 1 [COMPULSORY]

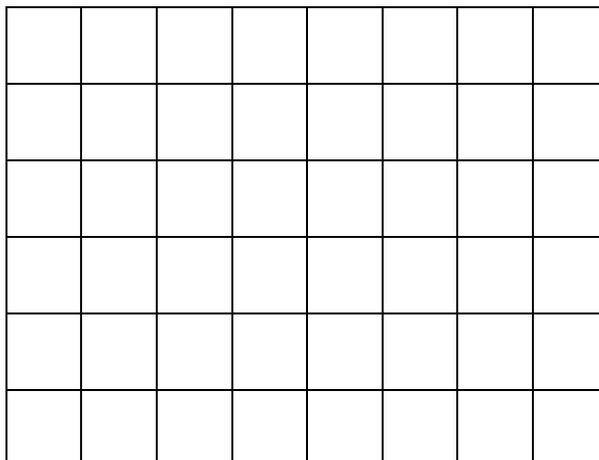
1. (a) Ama ate fried fish, kenkey and fresh pepper sauce
Copy and complete in a table what Ama ate into the functional groups of food.

Food item	Functional group
(i) Fried fish	
(ii) Kenkey	
(iii) Fresh pepper sauce	

- (b) The diagram below is the drawing of a mango



- (i) Enlarge the diagram in (b) in the drawing sheet provided below.



(ii) Shade your drawing in (b) (i) in **three** tones

(iii) List **two** other methods of shading apart from the one used in (b) (ii)

.....
.....
.....

(c) (i) State **two** reasons why investigations are carried out in the design process.

.....
.....
.....

(ii) List **three** electrical appliances used in the home

.....
.....
.....

SECTION B

[50 marks]

*Answer **two** questions **only** from this section*

All questions carry equal marks

2. (a) List **six** essential tools needed in the sewing box of a JHS student.

.....
.....
.....
.....
.....
.....

(b) State **four** points to consider when choosing a sewing machine.

.....
.....
.....
.....
.....
.....

(c) State the function of **each** of the following parts of the sewing machine

(i) Spool pin

.....

(ii) Thread guide

.....

(iii) Take up lever

.....

(iv) Stop motion screw

.....

(d) List **three** ways of caring for the sewing machine

.....
.....
.....
.....
.....

3. (a) Why is a school canteen important? Give **three** reasons.

.....
.....
.....
.....
.....

(b) State **two** important reasons for keeping the finger nails short and clean when cooking?

.....
.....
.....
.....
.....

(c) In **three** sentences explain why Ama always keeps the kitchen clean.

.....
.....
.....

.....
.....

(d) Define *frying*

.....
.....
.....
.....

(e) Give **six** examples of food that can be fried

.....
.....
.....
.....

(f) State **one** use of **each** of the following kitchen equipment

(i) Palette knife

.....

(ii) perforated spoon

.....

(iii) wooden spoon

.....

(iv) strainer

.....

4. (a) What is a *fibre*?

.....
.....
.....

(b) List the **two** main classes of textile fibres

.....
.....
.....

(c) Give **two** examples of **each** of the two classes of textile fibres you have listed in (b)

.....
.....
.....

(d) State **two** reasons why cotton fabrics are commonly used in Ghana.

.....
.....
.....

(e) What is *menu*?

.....
.....
.....

(f) Write down **three** types of menu

.....
.....
.....

(g) Explain **each** of the **three** types of menu you have written in (f)

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.....
.....
.....
.....
.....

(h) Plan a two course meal for yourself.

.....
.....
.....

April 2012

**BASIC DESIGN AND TECHNOLOGY 2
(Home Economics 2)**

Essay

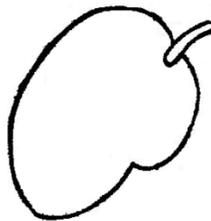
ANSWERS

1. (a) Ama ate fried fish, kenkey and fresh pepper sauce

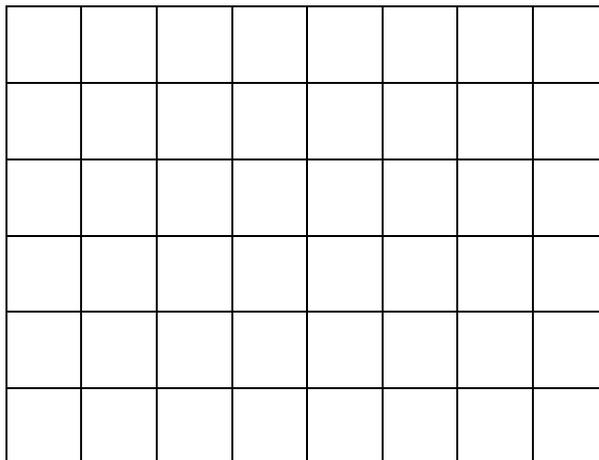
Copy and complete in a table what Ama ate into the functional groups of food.

Food item	Functional group
(i) Fried fish	Body building food
(ii) Kenkey	Energy giving food
(iii) Fresh pepper sauce	Protective food

- (b) The diagram below is the drawing of a mango



- (iv) Enlarge the diagram in (b) in the drawing sheet provided below.



- (v) Shade your drawing in (b) (i) in **three** tones
- (vi) List **two** other methods of shading apart from the one used in (b) (ii)

Hatching (shading with lines)
Cross hatching (shading with crossed lines)
Stippling (shading with dots)
Smudging (shading by smearing with finger)

- (c) (i) State **two** reasons why investigations are carried out in the design process.

To properly identify and specify the problem
To decide on best solutions to the problem
To decide on the most suitable materials and tools needed to solve the problem
To decide on the right form/shape and size of the article

- (ii) List **three** electrical appliances used in the home

Pressing iron
Radio set
Television set
Electric cooker
Refridgerator
Electric kettle
Blender
Microwave oven

SECTION B

[50 marks]

*Answer **two** questions **only** from this section*

All questions carry equal marks

2. (a) List **six** essential tools needed in the sewing box of a JHS student.

Pins,
Pair of scissors
Needle,
Pin cushion or magnet

Tape measure,
Thread,
Seam ripper
Thimble

- (b) State **four** points to consider when choosing a sewing machine.
- The main type of work it will be used for
 - The money available
 - Durability
 - Ease of use / operation
 - Storage and maintenance facility available
 - Availability of spare parts
- (c) State the function of **each** of the following parts of the sewing machine
- (i) Spool pin ...It holds the reel of thread.
 - (ii) Thread guide ...Holds the thread in position from the spool pin to the needle.
 - (iii) Take up lever ...This lever feeds the thread to the needle and controls the movement and flow of the spool thread in the formation of stitches.
 - (iv) Stop motion screw ...Controls the stitching by the machine.
- (d) List **three** ways of caring for the sewing machine
- Cover the machine when not in use.
 - Oil all movable parts regularly.
 - Service your machine regularly.
 - Keep machine away from dust / food particles.
 - Keep machine on a firm support
 - Follow all instructions in the manual booklet of the machine
3. (a) Why is a school canteen important? Give **three** reasons.
- It helps pupils/students who do not eat before coming to school to get food to eat.
 - It helps meet the nutritional needs of pupils/ students.
 - The school authorities can monitor and ensure hygienic environment and healthy food
 - It provides the opportunity for pupils / students to learn and practice good table manners
 - It prevents pupils / students from moving out of the school because of food.
 - It promotes pupils' punctuality at school, since they do not spend time eating before coming
 - It promotes better socialization of pupils / students
- (b) State **two** important reasons for keeping the finger nails short and clean when cooking?
- To prevent the transfer of germs to food
 - To prevent food poisoning
 - To maintain good personal hygiene
 - To make cooking easier and faster
- (c) In **three** sentences explain why Ama always keeps the kitchen clean.
- To prevent kitchen accidents:

+Explanation

To prevent insects from coming into the kitchen

+Explanation

To prevent odour or bad smells

+Explanation

(d) Define *frying*

It is a method of cooking food in heated fat or oil.

(e) Give **six** examples of food that can be fried

Yam, fish, meat, doughnut, koose, plantain, kakro, egg, pancake

(f) State **one** use of **each** of the following kitchen equipment.

(i) Palette knife

For spreading and turning foods

(ii) Perforated spoon

For draining foods when frying

(iii) Wooden spoon

For stirring and creaming mixtures

(iv) Strainer

For straining liquids from solids

4. (a) What is a *fibre*?

A thread or filament from which textile is made.

or

A soft tiny strand used to make fabrics.

(b) List the **two** main classes of textile fibres

Natural fibres.

Artificial / Synthetic / Man-made fibres.

(c) Give **two** examples of **each** of the two classes of textile fibres you have listed in (b)

Natural: cotton, mohair, linen, silk and wool

Man-made: rayon, polyester, nylon, acrylic, spandex and acetate

(d) State **two** reasons why cotton fabrics are commonly used in Ghana.

It is affordable

It is durable

It is highly absorbent

It is comfortable to wear

It is easy to wash and iron

It is easy to sew
It is easily dyed

(e) What is *menu*?

A list of dishes with their prices offered to a customer

or

A list of available dishes at a restaurant or canteen

or

The list of foods that are served at a meal.

(f) Write down **three** types of menu

Hospital menu

A la carte

Table d' hote

(g) Explain **each** of the **three** types of menu you have written in (f)

Hospital menu: A menu aimed at meeting the nutritional needs of patients. **Example,**

A la carte: A menu with all the dishes priced separately. **Example,**

Table d' hote: A menu with a complete meal of several courses offered at a fixed price.
Example,

(h) Plan a two course meal for yourself.

Main meal (1st course): Fish light soup and Plain rice

Dessert (2nd course) : Vegetable salad

Main meal (1st course): Brown beef stew and boiled rice.

Dessert (2nd course) : Pineapple upside down

ALTERNATIVE

Main meal (1st course): Mutton palmnut soup and fufu (pounded cassava and plantain)

Dessert (2nd course) : Sliced oranges

ALTERNATIVE

Main meal (1st course): Okro stew with goat meat and banku

Dessert (2nd course) : Mango juice

April 2011

BASIC DESIGN AND TECHNOLOGY 1 (Home Economics 1)

Objective Test 40 minutes

1. Which of the following is a neatening stitch?
 - A. overcasting
 - B. feather
 - C. chain
 - D. stem

2. Green leafy vegetables and sea foods provide the body with
 - A. minerals
 - B. proteins
 - C. vitamins
 - D. fats

3. Which of the following is a dry method of cooking?
 - A. boiling
 - B. baking
 - C. stewing
 - D. steaming

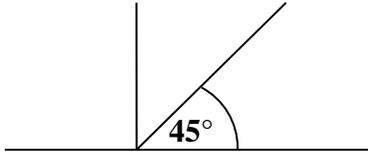
4. The lightness or darkness in a drawing is the
 - A. hue
 - B. shade
 - C. tint
 - D. tone

5. Any two primary colours mixed together in equal proportions produce a
 - A. complementary colour
 - B. neutral colour
 - C. secondary colour
 - D. tint colour

6. Which of the following lines is used for showing visible outlines?
 - A. short dashes
 - B. long chain
 - C. thick continuous

D. thin continuous

7. Figure 1 illustrates the principle of



- A. oblique axes
- B. perspective axes
- C. isometric axes
- D. orthographic axes

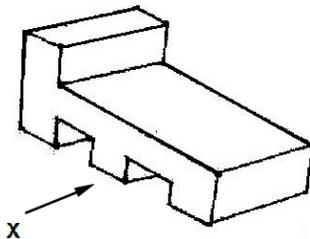
8. From the following options, select the designing media mixed with water

- A. charcoal
- B. crayon
- C. chalk pastel
- D. poster colour

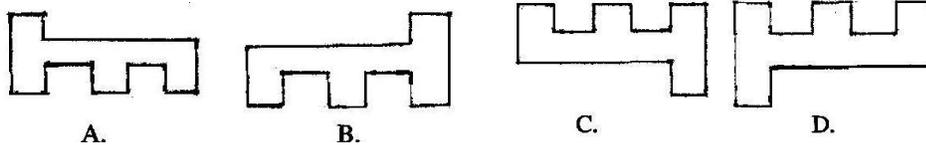
9. In design analysis, the size of the unit is considered under

- A. cost
- B. ergonomics
- C. safety
- D. function

Figure 2 is a block. Use it answer questions 10 and 11



10. Which of the following represents the front elevation in the direction of arrow X?



11. The plan is represented by



12. The two methods of drawing orthographic views are
- A. first angle and second angle
 - B. first angle and third angle
 - C. second angle and third angle
 - D. second angle and fourth angle
13. A vertical line is associated with
- A. movement
 - B. rest
 - C. stability
 - D. uncertainty
14. Which of the following situations is an indirect risk to a small business?
- A. flood
 - B. fire
 - C. inflation
 - D. theft
15. The factors to consider when setting up a sewing business includes
- A. capital, location and personal needs
 - B. capital, location and equipment
 - C. raw materials, market and business risks
 - D. raw materials, personal needs and demand
16. Which of the following equipment is **least** important when setting up a sewing industry?
- A. sewing machine
 - B. pressing iron
 - C. table
 - D. ironing board
17. Cotton is a vegetable fibre and therefore it is
- A. heat-resistant
 - B. water proof
 - C. absorbent
 - D. warm
18. When hand sewing, start with a
- A. double stitch
 - B. knot
 - C. single stitch

- D. tack
19. Good stitches are usually
- A. strong
 - B. straight and strong
 - C. visible
 - D. short
20. A French seam is suitable for
- A. household articles
 - B. outer garments
 - C. bulky fabrics
 - D. coarse fabrics
21. Accurate measurement must be taken in garment making to make garments
- A. look beautiful
 - B. look fashionable
 - C. last longer
 - D. fit well
22. Which of the following is a reason for renovating articles? It
- A. makes articles look brighter
 - B. makes articles look gay
 - C. makes articles last for a short time
 - D. makes articles last longer
23. An example of a large catering equipment is
- A. blender
 - B. boiling pan
 - C. mincer
 - D. food slicer
24. Which of the following is a moist method of cooking?
- A. grilling
 - B. poaching
 - C. baking
 - D. roasting
25. Creaming is a method used in the preparation of
- A. rock buns
 - B. pancake
 - C. queencake
 - D. ginger bread
26. A main meal should consist of
- A. protein dish and carbohydrate dish

- B. appetizer and side dish
- C. dessert and protein dish
- D. carbohydrate dish and appetizer

27. Which of the following is the correct order of writing a two-course menu?

- A. protein dish, carbohydrate dish and dessert
- B. carbohydrate dish, appetizer and dessert
- C. protein dish, appetizer and carbohydrate dish
- D. appetizer, protein dish and carbohydrate dish

28. Kpoikpoi is an ethnic dish for the

- A. Ewe
- B. Fante
- C. Akan
- D. Ga

29. Food commodities are

- A. major ingredients used for cooking food
- B. dishes served for communities
- C. quality fruits and vegetable
- D. meals prepared during festivals

30. A menu forming a complete meal at a set price is known as

- A. ethnic menu
- B. hospital menu
- C. table d'hote
- D. A la carte

April 2011

BASIC DESIGN AND TECHNOLOGY 1 (Home Economics 1)

Objective Test

ANSWERS

1. A. overcasting
2. A. minerals
3. B. baking
4. D. tone
5. C. secondary colour
6. C. thick continuous
7. A. oblique axes
8. D. poster colour
9. B. ergonomics
10. A.
11. A.
12. B. first angle and third angle
13. C. stability
14. C. inflation
15. B. capital, location and equipment
16. D. ironing board
17. C. absorbent
18. A. double stitch
19. B. straight and strong
20. A. household articles
21. D. fit well
22. D. makes articles last longer
23. B. boiling pan
24. B. poaching
25. C. queencake
26. A. protein dish and carbohydrate dish
27. A. protein dish, carbohydrate dish and dessert
28. D. Ga
29. A. major ingredients used for cooking food
30. C. table d'hote

April 2011

**BASIC DESIGN AND TECHNOLOGY 2
(Home Economics 2)**

**Essay
1 hour**

**SECTION A
(CORE SKILLS)**

[20 marks]

Answer question 1 [COMPULSORY]

1. (a) State **three** characteristics of a good plain seam.

.....
.....
.....

- (b) State **three** causes of food spoilage.

.....
.....
.....

- (c) Complete the table below by filling in the blank spaces

Colour	Association in Nature	Symbolism
Example: Red	Blood	Danger
	Sky	
White		
		Decay
	Past history	Mourning

- (d) The headmaster of your school has asked you to design and construct a Kumasi Ventilated Improved Pit (KVIP) toilet for the school

- (i) List **three** building materials you will use for making the structure

.....
.....
.....

- (ii) List **four** tools for constructing the walls.

.....
.....
.....

SECTION B

[50 marks]

Answer two questions only from this section

All questions carry equal marks

2. (a) Give **two** reasons for taking body measurement of a customer before making up his / her garment

.....
.....
.....

(b) What **three** steps will you take to ensure that accurate body measurements are taken?

.....
.....
.....

(c) List **eight** body measurements needed for making a school shirt.

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.....

(d) Identify **three** factors that will determine the amount of fabric needed to make a school shirt using a plain polyester fabric

.....
.....
.....

(e) List **two** garments that a JHS boy or girl puts on everyday to school.

.....
.....
.....

3. (a) State **two** basic stitches used in crocheting

.....
.....
.....

(b) List **four** crocheted articles

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.....
.....

(c) Explain **four** ways by which a caterer can maintain good health and a clean environment

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.....

(d) Give **three** reasons why a caterer should stay healthy

.....
.....
.....

(e) Which **four** points would Evelyn look out for when buying canned / tinned foods?

.....
.....
.....

4. (a) Explain the term *food*

.....
.....
.....

(b) Explain the term *food spoilage*

.....
.....
.....

(c) Which method of cooking is **best** for the preparation of the following:

- (i) Fruits
- (ii) Cake
- (iii) Khebab
- (iv) Doughnuts
- (v) Yakeyake
- (vi) Pancake
- (vii) Rice

(d) Complete the table below:

Functional Group	Four examples each	Two nutrients each
(i),	Protein,
(ii)	Yam, Oats,
(iii) Protectives,

(e) List **two** good table manners that you should observe when eating at table

-
-
-

April 2011

BASIC DESIGN AND TECHNOLOGY 2 (Home Economics 2)

Essay

ANSWERS

1. (a) State **three** characteristics of a good plain seam.

Firm stitched and strong
Well neatened
Suitable for the fabric.

- (b) State **three** causes of food spoilage.

Enzyme action
Moulds activity
Yeasts activity
Bacteria activity
Insect infestation

- (c) Complete the table below by filling in the blank spaces

Colour	Association in Nature	Symbolism
Example: Red	Blood	Danger
Blue	Sky	Peace / Love / Harmony /
White	Cotton, Snow, Wool	Victory / Purity / Righteousness / Innocence
Brown	Earth / Mud	Decay
Black	Past history	Mourning

- (d) The headmaster of your school has asked you to design and construct a Kumasi Ventilated Improved Pit (KVIP) toilet for the school

(i) List **three** building materials you will use for making the structure
Sand, stones, iron rods, wood, cement, roofing sheet, cement, nails

(ii) List **four** tools for constructing the walls.
Hand trowel, chisel, shovel/spade, spirit-level, builder's square

SECTION B

[50 marks]

Answer two questions only from this section

All questions carry equal marks

2. (a) Give **two** reasons for taking body measurement of a customer before making up his / her garment
- To prevent wasting of fabric
 - To make the garment fit well on the customer.
 - To ensure profitable use of fabric
- (b) What **three** steps will you take to ensure that accurate body measurements are taken?
- Use a standard tape measure in good condition.
 - Ensure a good posture of both customer and dressmaker.
 - Tape measure must be placed firmly and accurately along part being measured
 - Measurement must be taken over well-fitted foundation garments.
 - Record each measurement taken immediately.
- (c) List **eight** body measurements needed for making a school shirt.
- Bust
 - Shoulder
 - Around arm / sleeve width
 - Width of back
 - Width of chest
 - Shirt Length
 - Underarm
 - Sleeve length
 - Neckline width
- (d) Identify **three** factors that will determine the amount of fabric needed to make a school shirt using a plain polyester fabric
- The style of the shirt
 - The size of the wearer
 - The width of the fabric
- (e) List **two** garments that a JHS boy or girl puts on everyday to school.
- Girl: Skirt, Blouse/ pinafore / brassiere / frock / Underskirt / panties / pair of socks
Boy: Pair of shorts / shirt / singlet / underpants / pair of socks
3. (a) State **two** basic stitches used in crocheting
- Chain stitch.
 - Slip stitch.

Single crochet stitch
Half double crochet
Double crochet stitch

- (b) List **four** crocheted articles
Table mats, Hats, Bags, Sweater, Table cloth, Shawl
- (c) Explain **four** ways by which a caterer can maintain good health and a clean environment
- Taking a bath at least twice a day to keep body clean and fresh.
 - Keeping short and clean finger nails to prevent germs / food particles hiding in them
 - Sweeping and mopping floor with disinfectant regularly to keep it clean and dry to prevent the spread of insects and rodents
 - Regularly washing and drying used items to keep them free from germs
 - Washing hands with soap and water before and after handling food.
- (d) Give **three** reasons why a caterer should stay healthy
- To ensure that his/her food and services remain safe for consumption.
 - To boost his/her self confidence.
 - To enable him/her work effectively, leading to growth and profitability of business
 - To make his/her food and services attractive
 - To gain the respect of his/her customers and others.
 - To prevent food contamination.
- (e) Which **four** points would Evelyn look out for when buying canned / tinned foods?
- The manufacturing and expiry dates.
 - The composition/ ingredients of the content
 - Directions on how to use the content
 - Whether any part of the can / tin has rusted
 - Whether the can is Bloated / swollen
 - Whether any part of the tin is damaged

4. (a) Explain the term *food*
Any solid or liquid substance which, when taken in by a living organism, provides nutrition and maintains life and growth.
OR:
Any substance containing nutrients, which when taken into the body, provides energy, stimulates growth and maintains life.
- (b) Explain the term *food spoilage*
The process where food has gone bad and has become unsafe for eating
OR

The state of food where its original nutritional value, flavour and texture are damaged, and has become unsafe to consume.

OR

The state in which food has gone bad and is unsafe to eat

(c) Which method of cooking is **best** for the preparation of the following:

- (i) FruitsStewing.
- (ii) CakeBaking.
- (iii) KhebabGrilling
- (iv) DoughnutsFrying
- (v) YakeyakeSteaming
- (vi) PancakeFrying
- (vii) RiceBoiling

(d) Complete the table below:

Functional Group	Four examples each	Two nutrients each
(i) Body building food	Meat, Fish, eggs, groundnuts, Cowpea, soya beans, Milk	Protein, Fats and oils
(ii) Energy-giving food	Yam, margarine, potatoes Oats, Plantain, maize	Carbohydrate Fats and oils
(iii) Protectives	Cabbage, Tomatoes, kontonmire Mango, Orange, onions	Vitamins Mineral element

(e) List **two** good table manners that you should observe when eating at table

- Do not make noise with the cutlery.
- Do not talk when there's food in the mouth.
- Request for food items to be passed to you, instead of reaching out across other people's plates or hands.
- Communicate politely, using 'please', 'thank you' and 'I'm sorry' or 'pardon me', whenever necessary.
- Keep mouth closed whilst chewing

April 2010

BASIC DESIGN AND TECHNOLOGY 1 (Home Economics 1)

Objective Test 40 minutes

1. Stitches which are removed from an article after serving their purpose are known as
 - A. joining stitches
 - B. running stitches
 - C. temporary stitches
 - D. permanent stitches

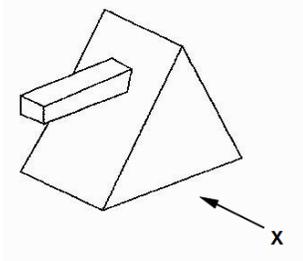
2. What is the common nutrient found in liver and beans?
 - A. fats
 - B. vitamins
 - C. carbohydrates
 - D. Proteins

3. The **most** popular method of preserving cassava is
 - A. smoking
 - B. freezing
 - C. drying
 - D. canning

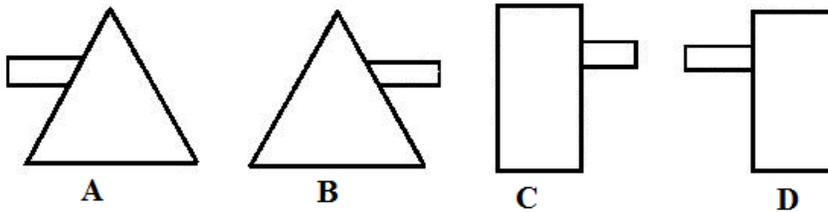
4. The arrangement of shapes in a picture is known as
 - A. composition
 - B. drawing
 - C. blending
 - D. toning

5. The **most** suitable support for drawing is
 - A. canvas
 - B. paper
 - C. rubber
 - D. wall

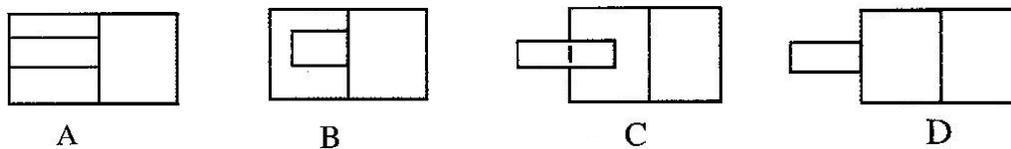
Figure 1 is a block. Use it to answer Questions 6 and 7.



6. Which of the following represents the front elevation of the direction of arrow X?



7. The plan is represented by



8. Graphic designers communicate information that can be

- A. seen and heard
- B. printed and read
- C. seen and read
- D. shown and felt

9. The artifact when completed should be able to hold a normal size candle.

This specification is classified as

- A. function
- B. construction
- C. ergonomics
- D. aesthetics

10. In design, the process used to determine the strengths and weaknesses of an artifact is

- A. analyzing
- B. testing
- C. realization
- D. modification

11. The colour code for a live wire is

- A. blue
- B. red
- C. yellow

D. green

12. Which of the following is **not** a basic home preventive maintenance of furniture?

- A. Strengthening joints
- B. Applying new finish
- C. Replacing damaged locks
- D. Replacing furniture

13. A method for making several identical copies of an artifact is

- A. shading
- B. drawing
- C. printing
- D. painting

14. A drawing of vegetation and buildings is

- A. landscape
- B. imaginative
- C. memory
- D. portraiture

15. An indirect risk to a sewing industry is

- A. low quality products
- B. misuse of profits
- C. inflation controls
- D. increasing capital

16. A needlework tool used for picking seams is called

- A. stitch ripper
- B. pinking shears
- C. embroidery scissors
- D. hand sewing needle

17. Which of the following are the **main** tools used in crocheting?

- A. hook and eye
- B. pin and string
- C. thread and hook
- D. thread and needle

18. Which of the following fibres has similar properties as cotton?

- A. nylon
- B. linen
- C. silk
- D. acetate

19. The process by which two or more pieces of fibre are firmly joined together with stitches is

- A. gathering

- B. knitting
 - C. seaming
 - D. smoking
20. A double-stitch seam can be used decoratively on a
- A. kaba
 - B. pair of jeans
 - C. track suit
 - D. polo shirt
21. Which of the following fasteners can be used to make a renovated article more beautiful?
- A. tapes and buttons
 - B. buttons and Velcro
 - C. zippers and hooks
 - D. press-studs and Velcro
22. The **main** purpose of repairing a garment is to
- A. decorate it
 - B. prolong its lifespan
 - C. avoid waste
 - D. alter the original style
23. One important factor to consider in the selection of meat for soup is that the
- A. meat should have plenty of fat
 - B. colour should be dull
 - C. flesh should be moist
 - D. meat should have unpleasant smell.
24. Examples of cooking methods that use conduction are
- A. boiling, poaching and steaming
 - B. grilling, steaming and baking
 - C. frying, boiling and roasting
 - D. roasting, poaching and steaming
25. The **most** common method of preserving poultry in Ghana is
- A. salting
 - B. drying
 - C. smoking
 - D. freezing
26. The **best** method to use in cooking tough cuts of meat is
- A. boiling
 - B. grilling
 - C. stewing
 - D. roasting

27. Which of the following statements describes heat transfer by conduction?
- A. the movement of heat in boiling water
 - B. the movement of heat through solid by contact
 - C. the movement of heated gases
 - D. the movement of heated gases in a circular motion
28. Dry methods of cooking include
- A. grilling
 - B. salting
 - C. boiling
 - D. poaching
29. Which of the following factors should be considered the **most** important in meal planning?
- A. nutrient needs of the family
 - B. service of the meal
 - C. cooking facilities available
 - D. time available for preparation
30. Knowledge on the classification of food helps the individual to
- A. satisfy hunger
 - B. plan meals properly
 - C. cook meals properly
 - D. select cheap food items

April 2010

BASIC DESIGN AND TECHNOLOGY 1 (Home Economics 1)

Objective Test

ANSWERS

1. C. temporary stitches
2. D. Proteins
3. C. drying
4. A. composition
5. B. paper
6. A.
7. A.
8. C. seen and read
9. A. function
10. B. testing
11. B. red
12. D. Replacing furniture
13. C. printing
14. A. landscape
15. C. inflation controls
16. A. stitch ripper
17. C. thread and hook
18. B. linen
19. C. seaming
20. B. pair of jeans
21. C. zippers and hooks
22. B. prolong its lifespan
23. C. flesh should be moist
24. A. boiling, poaching and steaming
25. D. freezing
26. C. stewing
27. B. the movement of heat through solid by contact
28. A. grilling
29. A. nutrient needs of the family
30. B. plan meals properly

April 2010

**BASIC DESIGN AND TECHNOLOGY 2
(Home Economics 2)**

**Essay
1 hour**

**SECTION A
(CORE SKILLS)**

[20 marks]

Answer question 1 [COMPULSORY]

1. (a) What is a *seam*?

.....

(b) Suggest the correct stitches for

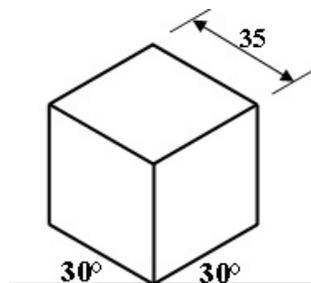
(i) fringed edge of a tablecloth

.....

(ii) making of a baby's petticoat

.....

(c) The figure below is a cube drawn in isometric



Sketch the cube in **two-point** perspective drawing

(d) (i) What is *texture*?

.....
.....
.....

(ii) List the **two** types of texture

.....
.....
.....

(e) Copy and complete the table below by providing the type of texture associated with each object listed

OBJECT	TEXTURE
Banana	
Pineapple	
Unwashed terrazo	

SECTION B
[50 marks]

Answer two questions only from this section
All questions carry equal marks

2. (a) Supply the disease, signs and symptoms of deficiency of the following in the table below:

Deficiency	Disease	Signs and Symptoms
Protein		
Iron		
Iodine		
Vitamin D		
Vitamin C		

(b) State and explain the **three** ways of heat transfer in cooking

.....
.....
.....

(c) Give **three** reasons for cooking food

.....

.....
.....

(d) (i) What is *food preservation*?

.....
.....
.....

(ii) Give **two** reasons why we preserve food.

.....
.....
.....

3. (a) State **two** characteristics of each of the following fibres

(i) Rayon

.....
.....
.....

(ii) Polyester

.....
.....
.....

(iii) Nylon

.....
.....
.....

(b) In **five** sentences, state the general care of natural fabrics.

.....
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.....
.....
.....

(c) State the **two main** classes of stitches and give two examples of each.

.....
.....
.....

(d) Describe the differences between the stitches mentioned in (c) above

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.....

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.....
.....

(e) (i) Explain **two** advantages of using freehand cutting.

.....
.....
.....

(ii) Explain **two** disadvantages of using freehand cutting.

.....
.....
.....

4. The diagram below shows a tool used in sewing



(a) (i) Name the tool in the diagram above.

.....

(ii) State **two** functions of the tool.

.....
.....

(iii) On which finger is the tool worn?

.....

(iv) State **two** materials used for making the tool.

.....
.....

(v) State **two** points to consider when selecting the tool.

.....
.....

(b) List **five** equipment needed when making a school uniform.

.....
.....

.....
.....
.....

(c) Explain **three** factors to consider when choosing equipment and tools for sewing

.....
.....
.....

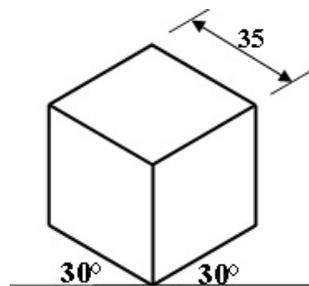
April 2010

BASIC DESIGN AND TECHNOLOGY 2 (Home Economics 2)

Essay

ANSWERS

1. (a) What is a *seam*?
A seam is a line of stitching, joining two or more pieces of fabric together permanently.
or
a line where two pieces of fabric are sewn together in a garment or other article
- (b) Suggest the correct stitches for
- (i) fringed edge of a tablecloth
Neatening stitches, such as overcasting, blanket stitch and hemming stitch
- (ii) making of a baby's petticoat
Decorative stitches, such as chain stitch, cross stitch, stem stitch and blanket stitch
- (c) The figure below is a cube drawn in isometric



Sketch the cube in **two-point** perspective drawing

- (d) (i) What is *texture*?
The feel or appearance of surface or substance
Or
How rough or smooth a surface is or appears to be
- (ii) List the **two** types of texture

Visual (virtual) texture

Tactile / Actual (tangible) texture

- (e) Copy and complete the table below by providing the type of texture associated each object listed

OBJECT	TEXTURE
Banana	Tactile / Smooth
Pineapple	Tactile / Rough
Unwashed terrazo	Visual / rough

SECTION B

[50 marks]

Answer **two** questions **only** from this section

All questions carry equal marks

2. (a) Supply the disease, signs and symptoms of deficiency of the following in the table below:

Deficiency	Disease	Signs and Symptoms
Protein	Kwashiorkor	Protruding stomach, Swollen feet, Thin hair Reduced weight
Iron	Anaemia	Fatigue / tiredness Loss of appetite Dizziness
Iodine	Goiter	Swollen neck / throat due to enlargement of the thyroid gland
Vitamin D	Ricket	Weak bones and teeth Poor formation of bones
Vitamin C	Scurvy	Swollen and/or Bleeding gums Pains in the joints. Wounds heal slowly or not at all Loss of appetite. Fatigue (feeling tired and weak) Skin disorders

- (b) State and explain the **three** ways of heat transfer in cooking
Ans; Conduction is the transfer of heat through solid (metals) by contact.
Convection is the transfer of heat through liquids or gases.
Radiation is the transfer of heat by electromagnetic waves.
- (c) Give **three** reasons for cooking food

- To make raw food safer for consumption
- To change or improve the taste of certain foods
- To make certain foods softer for eating
- To make certain foods more easily digestible
- To make certain foods look more attractive / appetizing

(d) (i) What is *food preservation*?
The treatment given to food to make it stay for a long period without going bad

Or

The treatment applied to food to prolong the life span

(ii) Give **two** reasons why we preserve food.

- To prolong its life span
- To avoid food wastage
- To ensure food security
- To enhance its flavor
- To maintain its nutrients

3. (a) State **two** characteristics of **each** of the following fibres

(i) **Rayon**

Absorbent and comfortable to wear

Easy to dye

Wrinkles and shrinks easily

Weak when wet

Drapes well

(ii) **Polyester**

Wrinkle resistant

Dries quickly

Low absorption

Lightweight

(iii) **Nylon**

Very strong

Low absorption

Wrinkle resistant

Lightweight

Easy to wash

(b) In **five** sentences, state the general care of natural fabrics.

- Wash white articles separately from coloured ones.
- Wash in warm water.
- Dry coloured articles in a shady place.
- Store in a well ventilated dry place

- Read and follow all instructions on label
- (c) State the **two main** classes of stitches and give two examples of each.
- **Temporary stitches**; Examples: tacking or basting, tailor's tacking, diagonal tacking
 - **Permanent stitches**; Examples: Over sewing, back stitches, running stitches
- (d) Describe the differences between the stitches mentioned in (c) above
- Temporary stitches join pieces of fabric together for a short period (temporarily). They are removed after serving their purpose.
 - Permanent stitches hold pieces of fabrics in position for long (permanently). They last as long as the garment lasts (except intentionally removed)
- (e) (i) Explain **two** advantages of using freehand cutting.
- It saves time - no need to draw and trace patterns before cutting.
 - It saves money - no need to buy brown papers and trace wheels.
 - Anyone can be taught the skill – it does not require much literacy or numeracy, since very few simple calculations are involved.
 - It promotes creativity of the dressmaker, because designs can be created easily and quickly.
- (ii) Explain **two** disadvantages of using freehand cutting.
- It wastes fabric if the garment style is complex; since cutting is done directly without any pattern to serve as a guide.
 - No pattern pieces are left for future use, thereby wasting time and effort in the long run when similar designs are required.
 - If multiple production of a garment style is needed, it might lead to differences in style / design, since there is no pattern to ensure uniformity.
 - It requires greater skill and effort of an inexperienced dressmaker.

4. The diagram below shows a tool used in sewing



- (a) (i) Name the tool in the diagram above.
Thimble.
- (ii) State **two** functions of the tool.
For protecting fingers while sewing
To push a needle through a fabric

- (iii) On which finger is the tool worn?
Middle finger.
- (iv) State **two** materials used for making the tool.
- Metal
 - Plastic
- (v) State **two** points to consider when selecting the tool.
- The size of the finger
The durability of the material
- (b) List **five** equipment needed when making a school uniform.
- Sewing machine
 - Scissors
 - Thumb
 - Tracing wheel
 - Seam ripper
- (c) Explain **three** factors to consider when choosing equipment and tools for sewing
- The kind of articles / garments to be made – (+ Explain)
 - The money available (+ Explain)
 - The durability of the equipment and tools (+ Explain)
 - The ease of operation / use of the equipment and tools (+ Explain)
 - The care and maintenance required (+ Explain)