



JULY

# DAS EXAMS

BDT(PRE-TECH)



Mr. Danso  
DAS

**DAS BECE PERFORMANCE BOOSTER**

**BASIC DESIGN AND TECHNOLOGY(PRE-TECH)**

1. (a)

(i) Food spoilage is a state in which food has gone bad and is usually dangerous to eat.

(ii) Food preservation is the act of keeping food for longer periods of time by giving it a special treatment.

**2 marks, 1 mark each correct to score**

(b)

- i. By smoking
- ii. By drying / dehydration
- iii. By freezing
- iv. By oiling
- v. By fermentation
- vi. By pickling

**3 marks, any three with explanations to score, just the methods mark out of 1 ½ marks, correct spellings to score otherwise award zero**

(c)

- i. Vision, joy, virginity, clean, success
- ii. Richness, male royalty, prosperity
- iii. Vision, creativity
- iv. Strength, sadness, the past or history, agony, sorrow
- v. Female royalty, feminine qualities.
- vi. Decay, sadness, related to soil

**3 marks, any 1 in each instance to score, ½ mark each, correct spellings to score otherwise award zero**

(d)

- i. Element of design referred to as visual elements of designs which are organized or combined to create a work of design **whilst** principles of design refer to the guidelines or philosophies that govern the production of an art work.

**3 marks, correct definition to score, give zero marks with mere definitions without contrast**

ii.

- a) Unity
- b) Variety
- c) Repetition
- d) Rhythm
- e) Dominance
- f) Scale
- g) Contrast
- h) Balance
- i) Harmony
- j) Proportion
- k) Pattern
- l) Movement

**2marks, any 2 in point, 1mark each, correct spellings to score otherwise award zero**

e) Drawing of figure in oblique into full size

**7marks, award zero for double lines, wrong dimensions,**

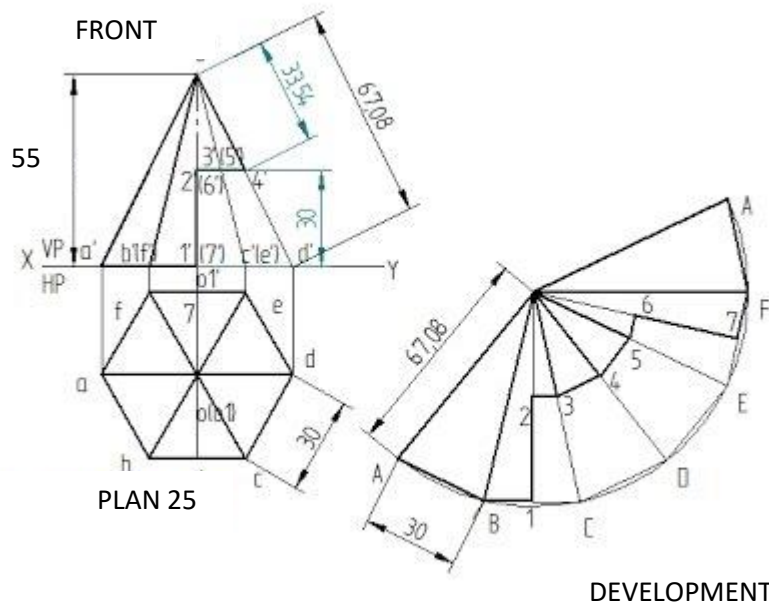
**SECTION B**

**Any two questions for 50 marks, 25 marks each**

**QUESTION TWO**

Question 2a

NOT DRAWN TO SCALE



**NOTE: PLAN 5MARKS**

**FRONT 5MARKS**

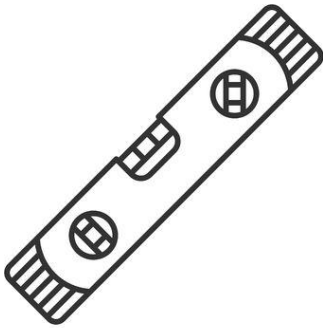
**DEVELOPMENT 5MARKS**

b) Importance of surface development

- i. The pattern can be re-used to save time
- ii. Facilitates fast production of the same articles
- iii. Materials are saved

***Any two for 2 marks, 1 mark each, correct to score***

c) i. Sketch of spirit level



**6 marks, no rule, if a candidate uses instrument give 0 marks**

- iii. One use of spirit level
  - a) For checking vertical straightness of a wall-plumbing of a wall
  - b) For checking horizontal straightness of a wall
  - c) For starting a brick wall

***Any 2 for 2 marks, correct to score***

a. Materials and properties

Material	One property	One use
Cast iron	Strong, brittle, high melting point, cannot be forged etc.	Engine block, machine beds, box iron, machine stands
Laterite	Elastic, reddish, brown, porous, etc.	Moulding brick
Adhesive	Fine, coarse, medium	For providing smooth surface
Cement	Fine, grey,	Mortar, concrete, walling, binding agent

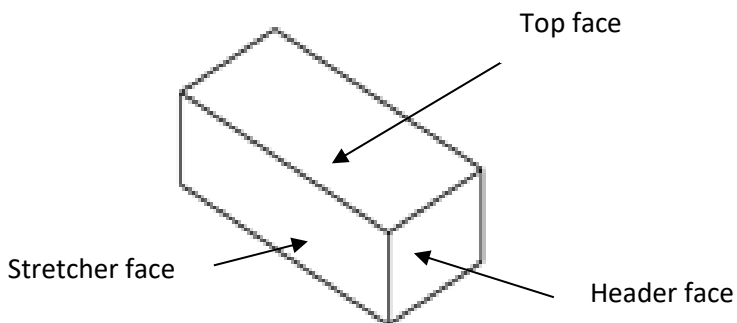
**Any one point in each column, for 8marks, 1 mark each, correct to score**

3b)

- i. Batching is the process of measuring building materials such as sand or stone at a time
- ii. Aggregate refers to sand and gravels for building
- iii. sandcrete are rectangular material shape made from either laterite, sand and cement for laying a wall

**2 marks each, 6marks, correct to score, otherwise award zero**

d) Sketch of brick



**6marks, any two labels correct spellings, with instruments such as ruler give zero**

d) Paring is the process of cutting thin slices of wood with a firmer chisel and using a mallet.

**3marks, correct spellings to score, otherwise award zero**

(ii)

- i. Firmer chisel
- ii. Mallet **any two, 2marks, 1mark each**

#### QUESTION 4

(a) Diagram of plane

(i) Jack plane

**1mark correct spelling to score**

(ii)

- I. Handle
- II. Toe
- III. Sole
- IV. Heel
- V. knob
- VI. Backing iron
- VII. Cutting iron

**7 marks, 1 mark each, correct spellings to score**

iii) uses

- a) For planing wood for require thickness
- b) For removing saw marks

**Any 2 points, for 2marks, 1mark each**

(iv) care of the tool

- a) Sharpen the cutting edge
- b) Oiling
- c) Put planes on their side

**3marks, 1mark each correct to score**

(v) Smoothing plane **1marks, correct to score**

4b i.

Marking out is the process of transferring the shape and measurement from a drawing onto a work piece **whereas** setting out is the process of transferring shape and measurement from a drawing onto a prepared site.

**2marks, correct to score, no contrast award zero**

4b. ii.

Marking out ...call, pencil, divider, compass try square, marking gauge, etc

Setting out...builder square, straight edge, tape measure, line and pines

**Any 3 from each for 3marks, correct spellings to score**

(c) The steps for moulding brick

1. Place the mould box on a pallet
2. Clean and water the inside faces of the mould box
3. Fill the mould box to one-third with laterite
4. Tamp it
5. Fill in more laterite and tamp
6. Continue the process till it is full and level it
7. Lift the mould box gently
8. Allow the brick to dry in about ten days
9. Lift and put the brick on its edge for drying

**Correct arrangements, 6marks, 0.67 marks each, mixed steps mark all zero**

## PAPER 1

1. C
2. C
3. B
4. B
5. A
6. C
7. B
8. D
9. A
10. B
11. C
12. B
13. C
14. D
15. C
16. A
17. A
18. A
19. C
20. B
21. A
22. C
23. C
24. A
25. A
26. B
27. A
28. D
29. C
30. B