



# KITH & KIN INTERNATIONAL COLLEGE

7/11 Kaoli Olusanya Street, Owode Ibeshe, Ikorodu, Lagos State.

## FIRST TERM EXAMINATION 2025/2026 ACADEMIC SESSION

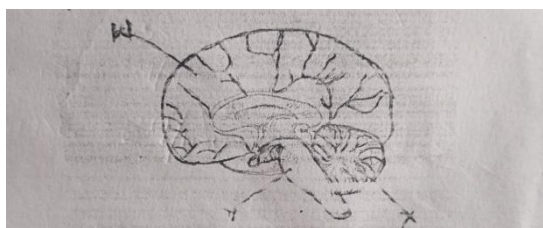
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|---------|----------------------------|-------|-------|----------|------------------------|
| NAME    |                            |       |       |          |                        |
| SUBJECT | BASIC SCIENCE & TECHNOLOGY | CLASS | JSS 3 | DURATION | 1 <sup>1</sup> /2HOURS |

### SECTION A: OBJECTIVE

**INSTRUCTION:** Answer all questions: Each question is followed by four options lettered A to D. Find out the correct option for each question and shade in pencil on your answer space which bears the same letter as the option you have chosen.

1. A boy who cannot see distant object is said to have a defect of the eye called \_\_\_\_\_

A. astigmatism



- B. cataracts  
C. hypermetropia  
D. myopia
2. The diagram shows a section through the human brain ? What are the functions of the labelled regions ?

|   | MEMORY | BALANCE |
|---|--------|---------|
| A | W      | X       |
| B | W      | Y       |
| C | X      | W       |
| D | X      | Y       |

3. Which of these organs excretes water & salt from the body?

A. Heart  
B. Kidney  
C. Liver  
D. Skin

4. The Chemical symbol of sodium is \_\_\_\_\_

A. C  
B. Ca  
C. N  
D. Na

5. The correct formula for sodium tetra-oxosulphate (VI) is

A.  $\text{Na}_2\text{S}_2\text{O}_3$   
B.  $\text{Na}_2\text{SO}_3$   
C.  $\text{Na}_2\text{SO}_4$   
D.  $\text{NaHCO}_3$

6. Which compound is formed when one atom of sodium combines with one atom of chlorine?

A. Ammonia  
B. Carbon – dioxide  
C. Caustic soda  
D. Common salt

7. The incoming ray of light that strikes an object is called \_\_\_\_\_ ray

A. divergent  
B. emmergent  
C. incident  
D. reflected

8. The Chemical symbol for lead is

- A. Ag  
B. La  
C. Ld  
D. Pd
9. Stimuli from sense organs are interpreted by the  
A. brain  
B. ears  
C. head  
D. heart
10. The part of the brain that controls reasoning & intelligence in man is the  
A. forebrain  
B. head  
C. hindbrain  
D. midbrain
11. Which of the following is not an intelligence in man?  
A. Communication  
B. Inference  
C. Inquisitiveness  
D. Measurement
12. Cochlea nerve is found in the  
A. ear  
B. eye  
C. mouth  
D. nose
13. The value of X in the chemical equation below
- $$2\text{H}_2(\text{g}) + \text{O}_2 \longrightarrow \text{X H}_2\text{O}(\text{l})$$
- A. 1  
B. 2  
C. 3  
D. 4
14. In which part of the eye is the pupil located ?  
A. Cornea  
B. Eye lashes  
C. Iris  
D. Sclera
15. The nucleus of an atom consists of  
A. the protons and the electrons  
B. the neutrons and the electrons  
C. the neutrons and protons  
D. only the protons
16. In a neutral atom,  
A. the number of neutron is equal to the number of electron  
B. the number of neutron is equal to the number of proton  
C. the number of protons is equal to the number of the electrons  
D. the number of protons is equal to the mass number
17. Which of the following is not defects o the eye?  
A. Astigmatism  
B. Hyper- metropia  
C. Myopia  
D. Bad – Eustachian tube
18. Which of the following is not part of the mammalian ear ?  
A. Choroid  
B. Vestibule  
C. Cochlea  
D. Eustachian tube
19. The part of the eye on which the image is formed is called  
A. cornea  
B. lens  
C. retina  
D. iris

20. Which of these is not a sense organ?

- A. Ear
- B. Eye
- C. Lung
- D. Tongue

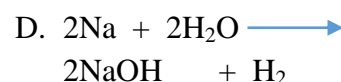
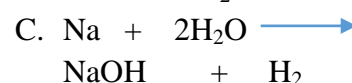
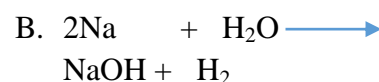
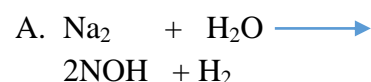
21. External ear of a human consists of

- A. pinna only
- B. ear drum
- C. pinna & tympanum
- D. auditory nerves

22. A \_\_\_\_\_ sensation is usually detected by the tip of the tongue

- A. sweet
- B. acid
- C. salt
- D. sour

23. A balanced equation for the reaction between sodium and water is \_\_\_\_\_



24. Short-sightedness can be corrected by one of the following.

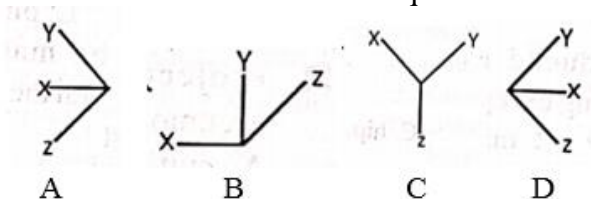
- A. Convex lens
- B. Normal lens
- C. Concave lens
- D. Vertical lens

25. The phenomenon which occurs when light rays change direction as they pass from one medium to another is

- A. refraction
- B. reflection
- C. diffraction
- D. polarizations

## BASIC TECHNOLOGY

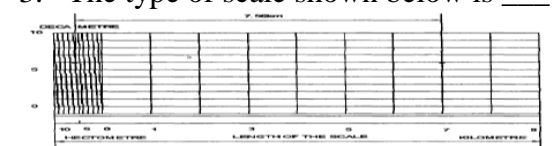
1. Which of these axes is oblique



2. Which of the following scale will produce the smallest view of an object?

- A. 1:1
- B. 1:10
- C. 3:4
- D. 5:2

3. The type of scale shown below is \_\_\_\_



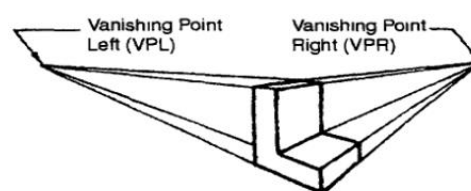
A. diagonal scale

B. plain scale

C. isometric scale

D. perspective scale

4. The diagram below is \_\_\_\_\_ perspective drawing.



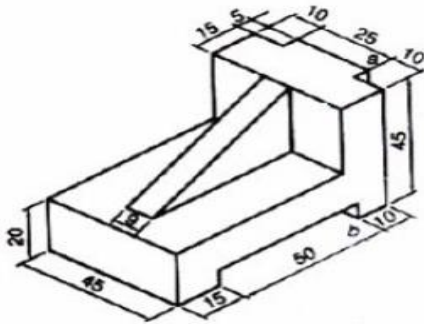
A. two points

B. three points

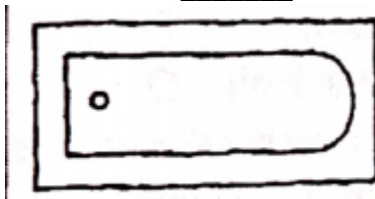
C. four points

D. picture

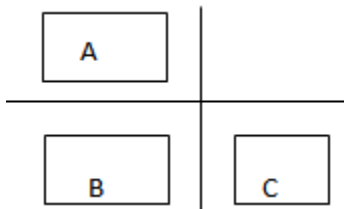
5. The figure below is \_\_\_\_\_ drawing.



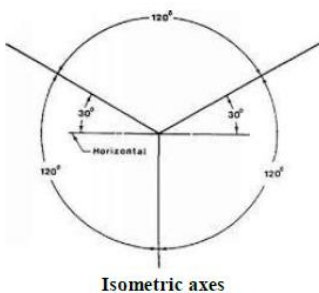
- A. oblique  
B. isometric  
C. perspective  
D. orthographic
6. The plumbing fitting/material shown below is \_\_\_\_\_



- A. sink  
B. bath tub  
C. water closet  
D. urinals
7. If the following is a position of views in third angle projection, the view A, B, C is \_\_\_\_\_ respectively.



- A. end, front, plan  
B. plan, front, end  
C. end, plan, front  
D. plan, front, elevation
8. The symbol shown below is \_\_\_\_\_ axes



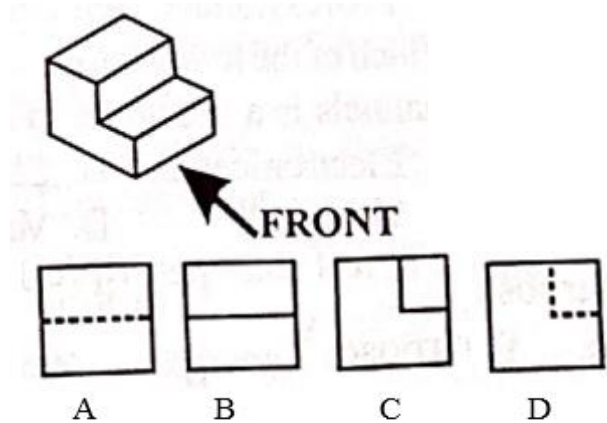
- A. oblique

- B. perspective  
C. isometric  
D. diametric

9. The symbol below represents \_\_\_\_\_ in blueprint.



- A. door  
B. window  
C. bath tub  
D. opening
10. Identify the plan of the block drawn below.



11. Which of the following is full size scale?

- A. 1:1  
B. 1:2  
C. 2:1  
D. 5:1

12. Isometric scale is approximately \_\_\_\_\_ of the standard unit.

- A. 0.85  
B. 0.89  
C. 0.55  
D. 0.82

13. \_\_\_\_\_ is used to draw perspective drawing.

- A. Auxiliary scale  
B. Scale of chord

C. Perspective scale

D. Diagonal scale

14. In perspective projection parallel lines are drawn to converge at a \_\_\_\_\_

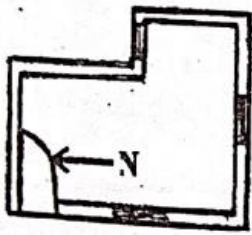
A. Ground line

B. Axis of vision

C. Centre of vision

D. Station point

15. The part labelled N in building drawing is \_\_\_\_\_



A. arch

B. window

C. door

D. passage

16. The most common views in an orthographic projection that show most features of the object is

A. side view

B. plan

C. elevation view

D. front view

17. The blueprint symbol shown below is \_\_\_\_\_

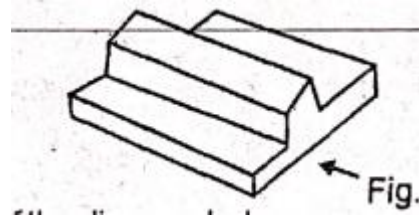


A. bath tub

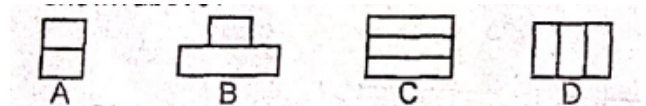
B. water closet

C. urinals

D. soak pit



18. Which of the diagram below represents the plan of block shown above?



19. \_\_\_\_\_ is any system that conveys fluid (liquid and gasses) for wide range of applications e.g. cooking, drainage, tap water, fuel, gas etc.

A. Drainage

B. Plumbing

C. Electricity

D. Sanitation

20. The plumbing tool shown below is



A. Pipe cutter

B. Pipe bender

C. Pipe wrench

D. Adjustable spanner

21. A \_\_\_\_\_ is a flexible nylon used to prevent leakage of most especially threaded pipe.

A. teflon tape

B. plumber snake

C. channel lock

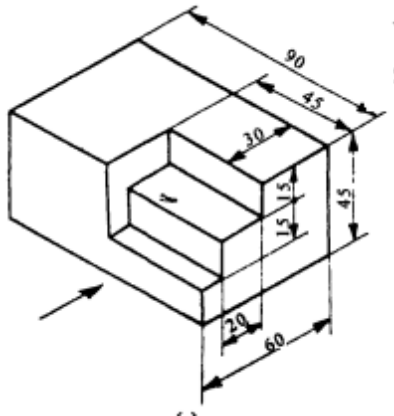
D. basin wrench

22. The plumbing material shown below is .....



- A. water closet
- B. door.
- C. basin
- D. bath tub

23. The front view of the object shown below in the direction of the arrow is \_\_\_\_\_



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

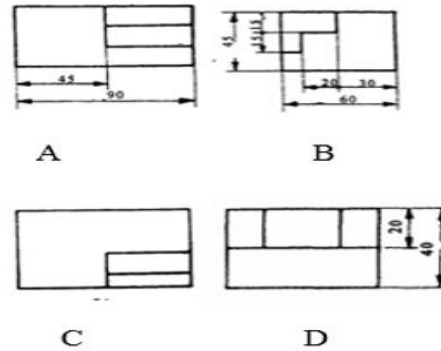
### COMPUTER STUDIES

1. Use the information below to answer question 1

| Item   | Price | Quantity | Total |
|--------|-------|----------|-------|
| Pen    | 50    | 3        |       |
| Book   | 120   | 2        |       |
| Eraser | 30    | 5        |       |

What is the name of the figure above?

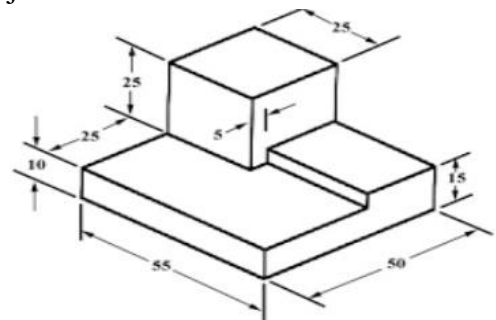
- A. Table



24. One of the advantages of oblique drawing over isometric drawing is \_\_\_\_\_

- A. shape appears distorted
- B. circle appears as ellipse
- C. drawn on transparent planes
- D. shapes on parallel face appear as it is.

25. The figure below is drawn in \_\_\_\_\_ projection.



- B. Cell
- C. Data
- D. Record

2. Which of the following is a limitation of the old economy?

- A. Fast access to information
- B. Low use of technology
- C. Global online trade
- D. E-learning platforms

3. Which of the following best explains the effect of the digital divide on education?

- A. Everyone can easily attend online classes
- B. Only students with access to digital tools can benefit from e-learning

- C. Textbooks are no longer needed in schools
- D. All students prefer traditional learning methods

4. One major way digital literacy has transformed education is by:
- A. Eliminating the need for teachers completely
- B. Providing access to online resources such as e-books and video lessons
- C. Forcing students to stop reading textbooks
- D. Preventing students from attending physical classes

5. Which of the following best defines a database?
- A. A collection of books in a library
- B. A collection of related data stored together in an organized form
- C. A storage device like a flash drive
- D. A software used only for browsing the internet

6. In MS Access, which object is used to store data in rows and columns?
- A. Form
- B. Report
- C. Table
- D. Query

7. You created a database named ClassResults in MS Access and entered student records. Later, you reopened it to check scores. Which step were you performing?
- A. Data input
- B. Data retrieval
- C. Data definition
- D. Data deletion

8. Look at the table below:

| Website    | Type |
|------------|------|
| Yahoo      | ?    |
| Bing       | ?    |
| DuckDuckGo | ?    |

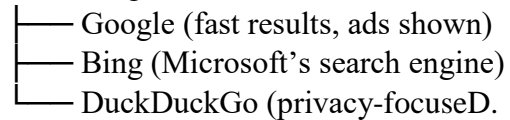
|         |   |
|---------|---|
| Twitter | ? |
|---------|---|

Which websites in the list are search engines?

- A. Yahoo, Bing, DuckDuckGo
- B. Bing, Twitter, Yahoo
- C. Google, Twitter, Yahoo
- D. Facebook, Yahoo, Instagram

9. Observe the diagram below:

Search Engines



Which of the following statements is TRUE?

- A. Google and DuckDuckGo provide the same privacy protection
- B. Bing is owned by Microsoft Corporation
- C. DuckDuckGo always shows personalized ads
- D. Yahoo is not a search engine

10. The image below closely replicates the concept of -----



- A. continental database
- B. internet
- C. local network
- D. national network

11. Observe the table below:

| Economy Type | Key feature                      |
|--------------|----------------------------------|
| Old economy  | Uses physical offices, paperwork |



|             |                                      |
|-------------|--------------------------------------|
| New economy | Uses online platforms, digital tools |
|-------------|--------------------------------------|

From the table, which of the following is correct?

- A. Old economy depends more on technology
- B. New economy uses more digital tools and internet
- C. Old economy is faster than the new economy
- D. Both are the same

12. Study the information below:

Old Economy → Paper-based, slow, local reach  
New Economy → Technology-driven, fast, global reach

Which statement is TRUE?

- A. Old economy allows global reach easily
- B. New economy relies on paperwork instead of technology
- C. Old economy is limited compared to the new economy
- D. New economy cannot be used in education

13. Study the T-chart below showing features of two economies:

| Features                           | Economy Type (?) |
|------------------------------------|------------------|
| Paperwork, face-to-face only       | ?                |
| Technology-driven, online tools    | ?                |
| Local reach, slower communication  | ?                |
| Global reach, faster communication | ?                |

Which of the following correctly matches the features with the Old Economy and New Economy?

- A. Old Economy → Technology-driven, Global reach  
New Economy → Paperwork, Local reach
- B. Old Economy → Paperwork, Local reach  
New Economy → Technology-driven, Global reach
- C. Old Economy → Online tools, Faster communication  
New Economy → Paperwork, Slower communication
- D. Both economies → Same features

14. In a spreadsheet, the intersection of a row and a column is called:

- A. Workbook
- B. Worksheet
- C. Cell
- D. Page

15. Refer to the image below:

|   | A  | B  | C  |
|---|----|----|----|
| 1 | 25 | 30 | 45 |
| 2 | 50 | 60 | 70 |

The data 60 is found in:

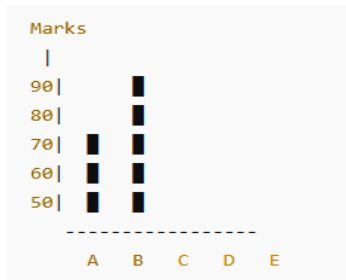
- A. Cell B1
- B. Cell B2
- C. Cell C1
- D. Cell C2

16. Which of the following steps correctly describes how to load and exit a spreadsheet package such as MS Excel?

- A. Start → Programs → MS Excel; Exit by closing the window
- B. Open Internet Explorer; Exit by pressing F1
- C. Insert a table; Exit by clicking on AutoSum
- D. Type on the keyboard; Exit by shutting down the monitor



17. Look at the chart below showing marks of 5 students.



Which type of chart is this?

- A. Line Graph
- B. Pie Chart
- C. Bar Chart
- D. Histogram

18. Study the two charts below and choose the correct statement:

- Chart 1: Line chart showing monthly rainfall (Jan–Jun)
- Chart 2: Pie chart showing percentage contribution of each month to total rainfall

Which statement is correct?

- A. Chart 1 is best for comparing parts of a whole.
- B. Chart 2 is best for showing trends over time.
- C. Chart 1 is best for showing trends over time.
- D. Both charts are suitable for showing the same information.

19. A school recorded the number of books read by students in a term

Which chart is MOST suitable for showing how different subjects contribute to a student's overall performance?

- A. Line Graph
- B. Pie Chart
- C. Bar Chart
- D. Histogram

20. Which feature of a bar chart helps us identify the values represented by each bar?

- A. Title
- B. Gridlines
- C. Axis Labels
- D. Legend

21. Which of the following is TRUE about a histogram?

- A. It shows percentages of a whole.
- B. It is used for continuous data grouped in intervals.
- C. It compares categories like names of students.
- D. It is always circular in shape.

22.

Study the T-chart below and answer the question:

| Histogram             | Bar Chart                     |
|-----------------------|-------------------------------|
| Bars touch each other | Bars have spaces between them |
| Shows continuous data | Shows discrete categories     |

From the above table, , According to the T-chart above, all of the following are wrong except.....

- A. Both histogram and bar chart always have spaces between bars.
- B. Histogram is used for continuous data, bar chart for categories.
- C. Histogram and bar chart are the same.
- D. Bar chart shows intervals, histogram shows categories.

23. A ----- is a type of database whereby data are shared between two or more tables

- A. network database
- B. hierarchical database
- C. modern database
- D. relational database

24. ----- is a tool or site used for checking specific information with the aid of keywords.

- A. A browser
- B. A network
- C. A database

D.A search engine

25. Imagine a table in Microsoft Access with the following columns:

| StudentID | Name        | Age | Class  |
|-----------|-------------|-----|--------|
| 101       | John Okoro  | 14  | JSS 3A |
| 102       | Ada Yusuf   | 13  | JSS 3B |
| 103       | Chinedu Obi | 14  | JSS 3A |

In the table above, which column is most suitable to be set as the Primary Key?

- A. Name
- B. Age
- C. StudentID
- D. Class

### P.H.E

1. Which of these is NOT a phase of pole vaulting?

- A. Grip
- B. Run-up
- C. Plant and take-off
- D. Kicking

2. The body that promotes sports in Nigeria is:

- A. NAFDAC
- B. FRSC
- C. CBN
- D. NFF

3. The pole in pole vault is usually made from:

- A. Fiberglass
- B. Bamboo
- C. Steel
- D. Iron

4. The plant box in pole vault is used for

- A. Fixing the pole during take-off
- B. Landing
- C. Standing start
- D. Measuring run-up

5. The main objective in pole vault is to:

- A. Jump high
- B. Jump far
- C. Run fast
- D. Throw pole

6. One importance of sports promotion agencies is

- A. Talent discovery
- B. Poverty increase
- C. Unemployment
- D. Idleness

7. Javelin is classified under:

- A. Track events

- B. Throwing events
- C. Jumping events
- D. Games

8. Which part of the body leads during javelin release?

- A. Legs
- B. Head
- C. Throwing arm
- D. Shoulder

9. The release angle of javelin is about

- A. 30–36°
- B. 20°
- C. 10°-30
- D. 50°

10. Which career requires sports science?

- A. Physiotherapist
- B. Farmer
- C. Lawyer
- D. Trader

11. HIV is caused by a:

- A. Virus
- B. Fungus
- C. Protozoa
- D. Bacteria

12. Malaria is caused by:

- A. Mosquito
- B. Plasmodium parasite
- C. Virus
- D. Bacteria

13. Which preventive measure controls cholera?

- A. Mosquito net
- B. Vaccination
- C. Hand gloves
- D. Face mask

14. Which of these spreads HIV/AIDS?

- A. Mosquito bite
- B. Mosquito spray
- C. Sneezing
- D. Sharing sharp objects

15. Which is a non-communicable disease?

- A. Malaria
- B. Cholera
- C. Typhoid
- D. Diabetes

16. Which of these is a risk factor for diabetes?

- A. Poor sanitation
- B. Smoking
- C. Excess sugar intake
- D. Virus

17. Which part of the body is affected with stroke?

- A. Brain
- B. Kidney
- C. Stomach
- D. Muscles

18. The major way to prevent non-communicable diseases is:

- A. Balanced diet
- B. Sleeping always
- C. Poor hygiene
- D. Lack of exercise

19. Which of these is hereditary?

- A. Malaria
- B. Sickle cell anemia
- C. Cholera
- D. Typhoid

20. Physical fitness means:

- A. Ability to run only
- B. Ability to perform daily tasks efficiently
- C. Ability to lift weights
- D. Sleeping well

21. Which is a component of physical fitness?

- A. Speed
- B. Germs
- C. Salt
- D. Vaccination

22. Flexibility can be improved by:

- A. Sprinting
- B. Stretching
- C. Jumping
- D. Eating food

23. Hockey is played with

- A. Rackets
- B. Sticks
- C. Hands
- D. Feet only

24. Balance is important in:

- A. Gymnastics
- B. Swimming
- C. Chess
- D. Card games

25. Which organ produces sperm?

- A. Ovary
- B. Testes
- C. Uterus
- D. Kidney

**SECTION B****[40MARKS]****PART A: BASIC SCIENCE****INSTRUCTION: Answer only one(1) question from this section**

1. (a) Study the diagram below and use it to answer the questions that follow



I. identify the part labeled A, B &amp; C

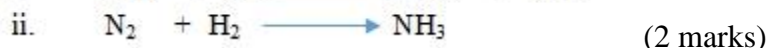
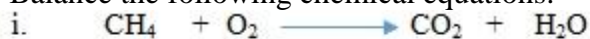
II. State one function each of the labeled part A (4 marks)

(b) Give the IUPAC name for the following:

i. KOH

ii. NaNO<sub>3</sub> (2 marks)

(c) Balance the following chemical equations:



(d) State two(2) functions of the human skin (2 marks)

2. (a) (i) State the "law of conservation of mass". (1 mark)

(ii) Write the structure and electronic configuration of the following element:

i.  $_{13}\text{Al}$ ii.  $_{19}\text{K}$  (2 marks)

(b) State one function each of the following

i. Cerebellum

ii. Cerebrum

iii. Medulla oblongata (3 marks)

(c) State the function of the following animal hormones

i. Pituitary Gland

ii. Thyroid Gland (2 marks)

(d) (i) What is a convergent beam? (1 mark)

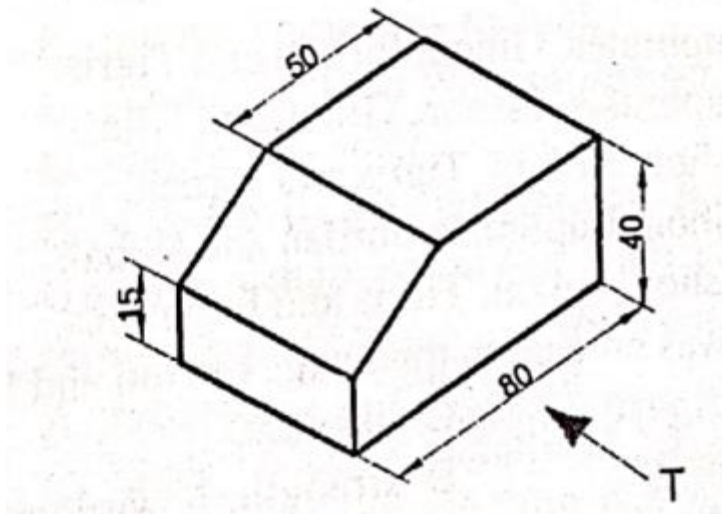
(ii) State 2 properties of light (2 marks)

**PART B: BASIC TECHNOLOGY****INSTRUCTION: Answer only one(1) question from this section**

1. All dimensions are in millimetres unless otherwise stated.

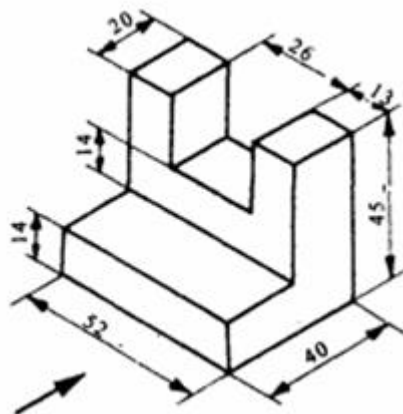
Define the following (i) sanitary appliances, (ii) scale drawing, (iii) pictorial drawing and (iv) blueprint (2 marks).

- (b) Construct a plain scale of 3cm represents 1m to read up to 6m in length, mark 3.5m on it. (2 marks)
- (c) The front elevation of the isometric block drawn below is indicated by arrow T.



In first angle projection; draw to full scale the following views:

- (i) Front elevation (2 marks)
  - (ii) Plan (2 marks)
  - (iii) Left side elevation (1 mark)
- (d). List two domestic plumbing systems. (1 mark)
2. (a) List four types of scale in technical drawing. (2 marks)
- (b) Name four benefits of blueprint. (2 marks)
- (c) Make sketch of the block below in one point perspective drawing



(2 marks)

- (d) Define the following i. domestic plumber ii. Oblique drawing iii. Perspective drawing iv. Isometric drawing. (2 marks)
- (e) Draw a small floor plan and indicate at least four blueprint symbols on it. (2 marks)

### PART C: ICT

**INSTRUCTION: Answer only one(1) question from this section**

1. Study the T-chart below carefully and answer the questions that follow.

#### Old Economy

Paper-based; face-to-face only  
Local reach; slow communication  
Manual storage of records

#### New Economy

Technology driven; uses online tools  
global reach; faster communication  
Digital storage and easy retrieval

- From the chart above, state two limitations of the old economy (2 marks)
  - Define the term Digital divide (1 marks)
  - List two features of the new economy (2 marks)
  - The intersection of a row and a column is called ----- (1 mark)
  - (i) State two ways digital literacy benefits education (2 marks)
- Use the table below to answer question (e) (ii)

| Workplace     |
|---------------|
| Remote jobs   |
| Data analysis |
| Automation    |

- (ii) In not more than 2 lines each, briefly explain two ways digital literacy is changing workplace and career opportunities (2 marks)

2. Study the image below carefully and answer the questions that follow.

| StudentID | Name        | Age | Class  |
|-----------|-------------|-----|--------|
| 101       | John Okoro  | 14  | JSS 3A |
| 102       | Ada Yusuf   | 13  | JSS 3B |
| 103       | Chinedu Obi | 14  | JSS 3A |

- Explain the term database? (2 marks)
- Identify any four (4) forms or terminologies used in databases. (2 marks)
- Mention the steps involved in creating a simple database using Microsoft Access. (2 marks)
- State the procedures for:
  - Starting a new database
  - Opening an existing database (2 marks)
- Using the table above, explain how information can be: (2 marks)
  - Input into the database
  - Stored in the database

## PART D: PHYSICAL & HEALTH EDUCATION

**INSTRUCTION: Answer only one(1) question from this section**

- Describe the phases of javelin throw. (3 marks)
  - Mention three types of javelin grips. (3 marks)
  - Explain two basic skills in pole vault (2 marks)
  - Explain two basic skills in Javelin (2 marks)
- List two components of physical fitness. (2 marks)
  - Highlight two sports promotion agencies in Nigeria. (2 marks)
  - State two functions of sports promotion agencies. (2 marks)



- (d) State two skill-related components of fitness. (2 marks)
- (e) State the duration and number of players in hockey. (2 marks)



