



**CHRIST HIGH SCHOOL PLOT 5, CHS
STREET, KM 32, ABUJA-KEFFI ROAD
UKE, NASARAWA STATE**

**END OF SECOND TERM
EXAMINATION 2024/2025
ACADEMIC SESSION**

**SUBJECT: BASIC SCIENCE
AND TECHNOLOGY
CLASS: JS 2
TIME: 2 Hours**

NAME.....

CANDIDATE'S ADMISSION NO.

INSTRUCTION

**Write your name and number in the space
provided on your answer booklet. Write your
name on any extra sheet used.**

**Answer all questions in section A and
answer only four questions in the theory, one
(1) question from each subject.**

**At the end of the examination, staple all your
work securely together.**

FOR EXAMINER'S USE

Total Score:

+

SECTION A: OBJECTIVE

BST A: BASIC SCIENCE

1. Energy is the ability to do

_____.

- A. Rest
- B. Motion
- C. Work
- D. Power
- E. Play

2. Power is defined as

_____.

- A. Energy per unit time
- B. Force per unit time
- C. Work done per unit time
- D. Velocity per unit time
- E. Acceleration per unit time

3. . What is diffusion?

- A) The movement of particles from a region of high concentration to a region of low concentration until evenly distributed
- B) The movement of particles from a region of low

concentration to a region of high concentration

- C) The random movement of particles in a substance

- D) The separation of particles based on their size

- E) The combination of particles to form a new substance

4. Which of the following is an example of diffusion?

- A) Water flowing from a tap

- B) Sugar dissolving in water

- C) A balloon inflating with air

- D) A rock rolling down a hill

- E) A plant growing towards sunlight

5. Work is done when a force

_____.

- A. Does not cause motion

- B. Acts perpendicular to motion

- C. Causes motion in the direction of the force

- D. Opposes motion

- E. Balances motion

6. What is the SI unit of energy?

A. Newton

B. Joule

C. Watt

D. Pascal

E. Ampere

7. A light bulb transforms electrical energy into _____.

A. Sound energy

B. Thermal and light energy

C. Nuclear energy

D. Elastic energy

E. Chemical energy

8. When a ball rolls down a slope, its potential energy is converted to _____.

A. Kinetic energy

B. Chemical energy

C. Nuclear energy

D. Thermal energy

E. Electrical energy

9. The SI unit of work is _____.

A. Joule

B. Newton

C. Watt

D. Kelvin

E. Pascal

10. The power of a machine that does 2000 J of work in 10 seconds is _____.

A. 200 W

B. 100 W

C. 500 W

D. 300 W

E. 1000 W

11. Which of these is NOT a form of energy?

A. Electrical energy

B. Magnetic energy

C. Kinetic energy

D. Potential energy

E. Directional energy

12. The energy of a body at rest is called _____.

A. Kinetic energy

B. Potential energy

C. Thermal energy

D. Electrical energy

E. Nuclear energy

13. What is the work done if a force of 15 N moves an object 4 m?

A. 30 J

B. 45 J

C. 60 J

D. 15 J

E. 75 J

14. A machine does 1000 J of work in 5 seconds. What is its power?

A. 200 W

B. 500 W

C. 100 W

D. 250 W

E. 50 W

15. What is the main reason why diffusion occurs?

A) Because particles are attracted to each other

B) Because particles are repelled by each other

C) Because particles are moving randomly and spreading out

D) Because particles are being pushed by an external force

E) Because particles are being pulled by gravity

BST B: BASIC TECHNOLOGY

16. The instrument that is used to remove errors from a drawing is known as _____

A. Eraser

B. Compass

C. Protractor

D. Templet

E. Divider

17. Protractor is a drawing instrument used for

A. Bisecting angle

B. Drawing straight line

C. Drawing inclined lines

D. Transferring measurement

E. Measuring angles in degrees

18. _____ is a fixed point from which all points on the curved line are equidistant.

A. Sector

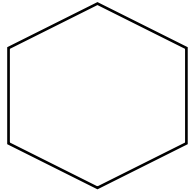
B. Centre

C. Segment

D. Diameter

E. Chord

19. The diagram sketched below represents



A. Pentagon

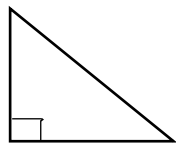
B. Nonagon

C. Octagon

D. Hexagon

E. Heptagon

20. What type of triangle is represented in the diagram below?



A. Equilateral

B. Isosceles

C. Right-angled

D. Scalene

E. Reflex angled

21. Which of the following correctly represents an isosceles triangle?

A. HAS three equal sides

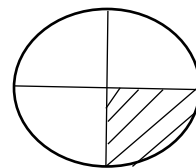
B. Has a 90° angle

C. Has no equal sides

D. Has a small hypotenuse

E. Has two equal sides

22. The shaded sectional part of the circle below is called a/an



A. Quadrant

B. Chord

C. Arch

D. Sector

E. Segment

23. A compass is a drawing instrument used for

- A. Bisecting angle
- B. Drawing straight line
- C. Drawing diagonal lines
- D. Drawing arcs and circles accurately
- E. Measuring angles

24. _____ is a plane figure bounded by curved lines.

- A. Angle
- B. Circle
- C. Triangle
- D. Square
- E. Cell

25. _____ divides a circle into two equal parts

- A. Radius
- B. Arc
- C. Diameter
- D. Sector
- E. Segment

26. A polygon with ten sides is called a _____

- A. decagon
- B. triangle
- C. quadrilaterals
- D. pentagon
- E. hexagon

27. The area of a square is

- A. $\frac{1}{2}$ base x parallel side
- B. Product of breadth and length
- C. 2 lengths plus 2 breadths
- D. Sum of 2 parallel side height
- E. $\frac{1}{2}$ x base x height

28. The following are examples of a plane figure except -----

- A. Triangle
- B. Mathematical set
- C. Polygon
- D. Circle
- E. Square

29. A cube has planes

- A. 3
- B. 4

- C. 5
- D. 6
- E. 7

30. A scalene triangle has

- A. all angle equal
- B. one right angle
- C. unequal sides
- D. all side equal
- E. parallel side

BST C: PHYSICAL AND HEALTH EDUCATION

31. The world cup of tennis is known as

- A. Davis cup
- B. Wimbledon
- C. French open
- D. Australian open
- E. ATP series

32. One of the following is not a cause of human trafficking

- A. Unemployment
- B. Poverty
- C. Illiteracy
- D. Prostitution

E. Education

33. Modern vaulting poles are made out of what material?

- A. Bamboo
- B. Fiberglass
- C. Plastic
- D. Metal
- E. Elastic sticks

34. The first phase in the execution of a successful long jump is ____

- A. Take off
- B. Flying
- C. Landing
- D. Approach
- E. Flight

35. In the game of tennis, if the serving player has 2 points and the receiving player has 3 points, the score is called as ____

- A. 3:2
- B. 2:3
- C. 30:40
- D. 40:30
- E. 15:30

36. What is the length of the uprights in pole vault?

- A. 3m

- B. 4m
 - C. 5m
 - D. 7m
 - E. 6m
37. How many attempts does a pole vaulter have to scale a height?
- A. Three attempts
 - B. Two attempts
 - C. Four attempts
 - D. Five attempts
 - E. Six attempts
38. The length of a long jump runway is ____ meters
- A. 20 – 25
 - B. 30 – 35
 - C. 10 – 15
 - D. 40 – 45
 - E. 50 – 55
39. One of the following is not a human right agency against human trafficking
- A. Amnesty International
 - B. IOC
 - C. WHO
 - D. Children's Defense Fund
 - E. UNICEF
40. How many females are on a mixed doubles team in tennis?
- A. 4
 - B. 2
 - C. 1
 - D. 3
 - E. 5
41. What is the length of a long jump landing area?
- A. 9m
 - B. 6m
 - C. 5m
 - D. 7m
 - E. 8m
42. The fourth point in tennis is called ____
- A. Love
 - B. 30
 - C. 40
 - D. 45
 - E. Game
43. Which among the following sports has a landing area that is 1-1.5m thick?
- A. Long jump
 - B. Pole Vault
 - C. Tennis

- D. Triple Jump
E. Shot put
44. There are ____ types of grips in tennis
- A. 2
B. 5
C. 4
D. 3
E. 6
45. When a tennis player has no points, his/her score is recorded as ____
- A. Zero
B. 15
C. Love
D. 10
E. Game

**BST D: INFORMATION
COMMUNICATION
TECHNOLOGY**

46. Convert 24_{10} to base 2.
- A. 11000_2
B. 11100_2
C. 11110_2
D. 11011_2

- E. 10111_2
47. A collection of 8 bits is called
- A. Byte
B. Kilobyte
C. Megabyte
D. Nibble
E. Word
48. A program written _____ language requires no translation.
- A. Assembler
B. Computer
C. machine
D. Basic
E. Symbolic
49. The beginners all-purpose symbolic Instruction Code was developed at Dartmouth College by
- A. Bill Gates
B. Hollerith Herman
C. John Kemeny
D. Paul Allen
E. Philip Emeagwali
50. The hexad
- A. 0-9
B. 0-10

C. 0-9, A-E

D. 0-9, A-F

E. 0-10, A-F

51. A paint package produces image by changing the colour of ____?

A. Bitmapped

B. Pixel

C. Screen

D. Drawing

E. Image

52. GIGO means

A. Garbage In Garbage Out

B. Garbage In Google Out

C. Get In Get Out

D. Google In Garbage Out

E. Google In Google Out

53. Which of the following ICT gadgets is used for receiving pictures and sound transmitted by cable, radio or satellite?

A. Computer

B. Fax machine

C. Handset

D. Radio

E. Television

54. The _____ tool enables you to erase portion of a picture while working in a paint environment.

A. Colour picker

B. Magnifier

C. Pencil

D. Rubber

E. Eraser

55. The _____ bar in Corel Draw displays information about selected objects such as colour, fill type and outline.

A. Property

B. Standard

C. Status

D. Title

E. Tool

56. The following are graphic software except

A. Adobe Photoshop

B. CorelDraw

C. Microsoft PageMaker

D. Microsoft Paint

E. Picasa

57. Graphic packages can be best described as

- A. Software programs that use CPU to process information.
 - B. Software programs that allow people to use computers to create, edit, display and print graphic images.
 - C. A software program that runs in the background of system causing the system to boot and turn off when necessary.
 - D. A software program that calculates the number of bits consumes during an internet session.
 - E. A software program that needs other software before it can function.
58. _____ is not an example of a browser.
- A. Google
 - B. Internet explorer
 - C. Moxilla firefox
 - D. Netscape navigator
 - E. Opera mini
59. Ctrl _____ is to Redo and action.
- A. C
 - B. V
 - C. X
 - D. Y
 - E. Z
60. Which of the following is not an example of a Computer?
- A. Android
 - B. Iphone
 - C. Laptop
 - D. Linux
 - E. Palmtop

SECTION B: THOERY

BST A: BASIC SCIENCE

INSTRUCTION: Answer only one (1) question from this part

1.

A. Define diffusion (3 marks)

B. List 2 examples of diffusion (2 marks)

2.

A. Define melting (2 marks)

B. Define energy and work (3 marks)

BST B: BASIC TECHNOLOGY

Instruction: Answer only one (1) question from this part

3. Using a circle of 8cm in diameter, construct of a tangent to a circle from a given point outside it. (5 marks)

4. Circumscribe and circle to a given equilateral triangle of 9cm. (5 marks)

BST C: PHYSICAL AND HEALTH EDUCATION

Instruction: Answer only one (1) question from this part

5. A) State any five components of school health programmes (2.5marks)

B) State any two rules of pole vault (1mark)

C) State any three facilities and equipment used in long jump (1.5 marks)

6. A) Explain how scoring is done in the game of tennis (3marks)

B) Identify any four skills used in tennis (2 marks)

BST D: INFORMATION AND COMMUNICATION TECHNOLOGY

Instruction: Answer only one (1) question from this part

7. Write a Basic Programme that display average of 6 numbers. (4 marks)

ii. State four examples of graphic packages. (1 mark)

8. What is Computer Graphic? (1 mark)

ii. Mention four ICT Gadgets known to you. (2 mark)

iii. List four tools find in CorelDraw Package. (2 marks)