

**WASSCE INTEGRATED
SCIENCE
2006 JUNE
OBJECTIVE TEST**
Questions Only

1. Bacteria belong to the kingdom
 - A. fungi
 - B. plantae
 - C. prokaryotae
 - D. protoctista
2. The manufacture of plastics involves
 - A. crystallization
 - B. fermentation
 - C. polymerization
 - D. vulcanization
3. Which of the following crops are sources of edible oil?
 - I. cowpea
 - II. groundnut
 - III. Soyabean
 - A. I and II only
 - B. I and III only
 - C. II and III only
 - D. I,II and III
4. Sound waves cannot undergo
 - A. diffraction
 - B. dispersion
 - C. reflection
 - D. refraction
5. Twins are described as Siamese when
 - A. both are female
 - B. one is a male and the other female
 - C. they are joined at some point
 - D. one is born several hours before the other
6. Fractional distillation can be used to produce
 - A. ethanol from palm wine
 - B. kerosene from crude oil
 - C. charcoal from wood
 - D. salt from sea water
7. The removal of plant nutrients by water percolation downwards from the reach of plants is known as
 - A. drainage
 - B. erosion
 - C. infiltration
 - D. leaching
8. Atmospheric air is a mixture because it
 - A. supports combustion
 - B. can be liquefied
 - C. contains more than two elements
 - D. has no definite compositions

9. Ectopic pregnancy may result in the
- A. rupture of the oviduct
 - B. release of an ovum
 - C. contraction of the uterus
 - D. malfunctioning of the placenta
10. Which of the following ions can cause permanent hardness in water?
- A. Ca^{2+}
 - B. K^+
 - C. Na^+
 - D. Zn^{2+}
11. The principal organic compound formed by fermentation of sugar is
- A. ethanoic acid
 - B. ethanol
 - C. formic acid
 - D. methanol
12. Soil aeration could be improved by
- A. application of inorganic fertilizers
 - B. drainage of excess water
 - C. irrigation
 - D. mulching
13. The constriction in a clinical thermometer
- A. enables the mercury to remain in the bulb at very high temperatures
 - B. prevents the mercury from flowing back into the bulb
 - C. enables the mercury to expand uniformly
 - D. prevents the mercury from over-expanding
14. Which of the following statements is correct for an object placed in front of a convex mirror? The image is
- A. behind the mirror
 - B. enlarged
 - C. inverted
 - D. real
15. The causative organism of whooping cough is
- A. bacterium
 - B. fungus
 - C. worm
 - D. virus
16. The motion of a globe spinning on its axis is
- A. circular
 - B. oscillatory
 - C. rectilinear
 - D. rotational
17. What is the colour of phenolphthalein in orange juice?
- A. blue

- B. colourless
- C. pink
- D. red

18. Germinating seed releases heat energy and carbon dioxide which is an indication that

- A. heat required for germination
- B. seeds can supply energy to the body when eaten
- C. seeds are living things
- D. carbon dioxide is not required for germination

19. Partial shadow is also referred to as

- A. eclipse
- B. mirage
- C. penumbra
- D. umbra

20. Colostrum is very important for the feeding of newly-born mammals because it contains

- A. carbohydrates for providing energy
- B. antibodies, proteins and vitamins for initial growth
- C. iron-rich substances for producing blood
- D. substances that kill worms in the young mammal

21. Over-indulgence in the use of mobile phones could lead to

- A. air pollution
- B. irradiation of body tissues
- C. rupture of the ear drum
- D. the user becoming talkative

22. Which of the following modes of heat transfer does not require a medium?

- A. Conduction
- B. Convection
- C. Evaporation
- D. Radiation

23. Which of the following fruits is a false fruit?

- A. cashew
- B. mango
- C. pawpaw
- D. pineapple

24. A solid of mass 300 g increases in temperature by 15°C . Calculate the amount of heat absorbed. [Specific heat capacity of the solid is 2100 J k^{-1}]

- A. 9 450 J
- B. 94 500 J
- C. 945 000 J
- D. 9 450 000 J

25. Yam is staked in order to

- A. prevent pest attack
- B. enable the vine to develop more leaves

- C. expose the leases to sunlight
- D. allow the tubers to grow deep into the soil

26. Which of the following characteristics in humans is an indication of sexual maturity?

- A. The ability to think deeply
- B. growth of hairs in the pubic region
- C. the ability to exercise self control
- D. presence of grey hairs on the body

27. If the blood group of an individual is AB, then none of the parents could belong to blood group

- A. A
- B. B
- C. AB
- D. O

28. Which of the following computer application programs can most effectively be used to produce financial records?

- A. desktop publishing
- B. graphics
- C. spreadsheet
- D. word processing

29. A farmer planted 2500 stands of maize at a rate of two seeds per stand. If there was 90% germination, determine the plant population.

- A. 2250
- B. 2777
- C. 4500
- D. 4750

30. Which of the following substances is used to disinfect fresh wounds?

- A. ammonia solution
- B. ethyl alcohol
- C. hydrogen peroxide
- D. iodine tincture

31. A *farm gate* price refers to the

- A. price of the gate to a farm
- B. salary of the farm gate keeper
- C. price of a farm produce sold on the farm
- D. price of a farm produce sold on the market

32. The excretory products of plants include

- A. ammonia, gum and excess salt
- B. gum, excess salt and urea
- C. ammonia, latex and urea
- D. gum, latex and excess salt

33. Which of the following substances is not a hydrocarbon?

- A. Butane
- B. Ethanol
- C. Hexyne

D. Methane

34. Early parenthood may be brought about by

- A. good financial standing of parents
- B. high educational background
- C. lack of moral training
- D. low participation social activities

35. Which of the following of crops belong to the same group?

- A. guinea corn and groundnut
- B. sweet potato and soya bean
- C. groundnut and soya bean
- D. coconut and cocoyam

36. Which of the following activities is a reflex action

- A. biting
- B. dancing
- C. singing
- D. sneezing

37. The main source of vitamins for free range domestic fowls is

- A. grains
- B. insects
- C. leaves
- D. tubers

38. Which of the following groups of substances is made up of elements only?

- A. argon, magnesium, phosphorus
- B. chlorine, air, nitrogen
- C. magnesium, bronze, hydrogen
- D. petrol, alcohol, water

39. It is important to consider *Rh* factor during marriages because it may

- A. affect the intelligence of children born
- B. determine the weight of the child at birth
- C. result in stillbirths
- D. endanger the health of the mother

40. Hot water of mass 5.0 g at a temperature of 80°C is mixed with some cold water at a temperature of 25°C . If the final temperature of the mixture of the mixture is 30°C , determine the mass of the cold water

- A. 50.0 g
- B. 55.0 g
- C. 75.0 g
- D. 85.0 g

41. The device that enables one to photocopy a text or picture into a computer is the

- A. modem
- B. plotter
- C. printer
- D. scanner

42. Which of the following communities is **not** an ecosystem?

- A. classroom
- B. grassland
- C. rain-forest
- D. swamp

43. One system of unhealthy condition in cattle is

- A. a shiny coat
- B. the skin becoming soft
- C. a moist muzzle
- D. standing with the head held downwards

44. The image formed by a converging mirror is at infinity when the object is placed

- A. between the focal point and the pole
- B. between the focal point and the centre of curvature
- C. beyond the centre of curvature
- D. at the focal point

45. *Bougainvillea* is an ornamental plant that is normally grown as

- A. an avenue plant
- B. a hedging plant
- C. a shading plant
- D. a wind-break plant

46. If the normal human body temperature is 36°C , what is its equivalent value on the kelvin scale?

- A. 173.0 K
- B. 236.4 K
- C. 309.6 K
- D. 312.0 K

47. Which of the following substances gives a pH greater than 7 when in solution?

- A. ammonia
- B. carbon dioxide
- C. hydrogen chloride
- D. vinegar

48. The keyboard of a computer is an input device because it

- A. is one of the main parts of the computer
- B. is used to capture data into the computer
- C. has many functional keys
- D. can store information for future use

49. In order for inhalation to take place

- A. the rib cage must be lowered
- B. muscles of the diaphragm must be relaxed
- C. pressure in the lungs must be reduced
- D. the volume of the thoracic cavity

must be reduced

50. Which of the following metals does not react with water at room temperature?

- A. calcium
- B. iron
- C. magnesium
- D. sodium

51. Which of the following breeds of cattle is a high producer of milk?

- A. Friesian
- B. Red Bororo
- C. Sanga
- D. Sokoto Gudali

52. The ability of the unaided human eye to see clearly from both far and near is termed

- A. accommodation
- B. astigmatism
- C. hypermetropia
- D. myopia

53. In which of the following media does sound travel fastest?

- A. air
- B. steel
- C. water
- D. vacuum

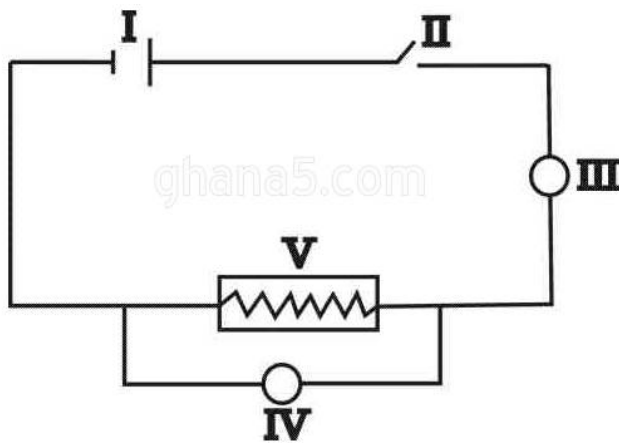
54. Which of the following statements about a plant cell is true?

- A. it contains a few large vacuoles
- B. it is surrounded by a cell membrane only
- C. it does not have a definite shape
- D. it does not have a nucleus

55. A person with red, sore eyes may be suffering from

- A. cholera
- B. malaria
- C. measles
- D. typhoid

Use the circuit diagram below to answer Questions 56 and 57.



56. The source of the current is represented by

- A. I
- B. II

- C. III
- D. IV

57. The part labeled V denotes

- A. ammeter
- B. galvanometer
- C. resistor
- D. switch

58. Which of the following statements about short-sight is false?

- A. it is defect of the human eye
- B. the image of a near object is formed in front of the retina
- C. the defect results from the eyeball being short
- D. distant object may not be seen

59. Which of the following statements about the centre of gravity of a body is correct? Its position

- A. is fixed even if the body carries extra load
- B. depends on atmospheric pressure acting on it
- C. changes with loading
- D. does not depend on the shape of the body

60. The sizes of computer diskettes include

- A. 2 ½ inches and 4 ½ inches
- B. 3 ½ inches and 5 ¼
- C. 3 ½ inches and 5 ¼
- D. 4 inches and 6 ½ inches

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