INTEGRATED SCIENCE 1

Time: **1hour**

*Answer **all** the questions.*

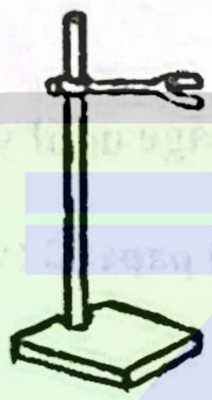
*Each question is followed by **four (4)** options, **A-D**. Find the correct option for each question and **shade in pencil** on your answer sheet the space which bears the same letter as the option you have chosen.*

*Give only **one** answer to each question.*

1. Safety devices to be used in a laboratory include
   I. A pair of goggles
   II. Nose guard
   III. Crash helmet
   IV. Hand gloves

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

2. The apparatus below is a



   A. Pair of tongs
   B. Retort stand
   C. Test tube holder
   D. Tripod stand

3. Which of the following substances has the highest density?
   A. Kerosene
   B. Mercury
   C. Water
   D. Wax

4. Which of the following is a device that converts mechanical energy to electrical energy?
   A. Transformer
   B. Magnet
   C. Turbine
   D. Radio

5. Solar cells convert the sun's energy into
   A. Chemical energy
   B. Electrical energy
   C. Heat energy
   D. Light energy

6. A transistor can be used as
   I. Switch
   II. Rectifier
   III. Amplifier

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

7. Which of the following factors affects the loudness of sound?
   A. Amplitude
   B. Frequency
   C. Velocity
   D. Wavelength

8. Which of the following materials is magnetic?
   A. Brass
   B. Copper
   C. Glass
   D. Nickel

9. The motion of gas particle is an example of
   A. Circular motion
   B. Rectilinear motion
   C. Rotational motion
   D. Random motion

10. The S.I unit for work is the
    A. A
    B. J
    C. N
    D. W

11. When a glass rod is rubbed with silk it becomes
    A. Magnetic
    B. Neutral
    C. Negatively charged
    D. Positively charged

12. When white light is dispersed, the following colours are observed except
    A. Orange
    B. Yellow
    C. Green
    D. Magenta

13. Ventilation is essential in the construction of houses because it
    A. Creates conditions that favour the growth of fungi
    B. Allows warm air to circulate in the room
    C. Replaces humid stagnant air with dry air
    D. Promote the chances of droplet infection

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14. To which of the following kingdoms does protozoa belong?
    A. Prokaryotae
    B. Fungi
    C. Plantae
    D. Protoctista

15. The organelle responsible for respiration is
    A. Endoplasmic reticulum
    B. Mitochondrion
    C. Plasma membrane
    D. Ribosome

16. The correct sequential arrangement of the vertebrae along the vertebral column of a mammal is
    A. Sacral, cervical, thoracic, lumbar and caudal
    B. Thoracic, lumbar, caudal, cervical and sacral
    C. Cervical, thoracic, lumbar, sacral and caudal
    D. Cervical, lumbar, thoracic, sacral and caudal

17. Sexual reproduction in plants is through
    A. Bulbs
    B. Corms
    C. Rhizomes
    D. Seeds

18. Exchange of gases in plants occurs mainly through the
    A. Buds
    B. Cuticle
    C. Epidermal cells
    D. Stomata

19. The major nutrients supplied by the leafy vegetables include the following except
    A. Fats and oils
    B. Proteins and minerals
    C. Vitamins and mineral salts
    D. Vitamins and proteins

20. The true stomach of the ruminant is the
    A. Abomasum
    B. Omasum
    C. Reticulum
    D. Rumen

21. Which of the following factors will not affect the rate of diffusion?
    A. Pressure
    B. Temperature
    C. Surface area
    D. Concentration gradient

22. The gas given off during photosynthesis can be identified using
    A. Potassium hydroxide
    B. a glowing splint
    C. lime water
    D. litmus paper

23. Which of the following habitats is aquatic?
    A. Farmland
    B. Park
    C. Pond
    D. Rain forest

24. The vector responsible for spreading yellow fever is
    A. Aedes mosquito
    B. Anopheles mosquito
    C. Culex mosquito
    D. Housefly

25. Which of the following organs excretes carbon dioxide?
    A. Kidney
    B. Lungs
    C. Liver
    D. Skin

26. Menopause is usually characterized by
    A. heat waves
    B. cessation of sweating
    C. thickening of the uterine wall
    D. increase in ovulation

27. The left ventricle of the heart has the thickest wall because
    A. it is the largest chamber of the heart
    B. it requires much pressure to pump blood to the heart
    C. the blood which gets into the left ventricle is under low pressure
    D. the left ventricle has to pump blood to all parts of the body

28. The part of the motor neurone which receives impulses for transmission is the
    A. axon
    B. cell body
    C. dendrites
    D. fatty sheath

29. Universal recipients are people in blood group
    A. AB
    B. A
    C. O
    D. B

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30. An example of agricultural use of land is
    A. game reserve
    B. road construction
    C. forest reserve
    D. recreational ground

31. The sedimentary rock is also referred to as
    A. stratified rock
    B. slated rock
    C. silica rock
    D. separated rock

32. Nitrogen from the atmosphere gets into the soil by the action of
    A. burning
    B. fungi
    C. microbes
    D. rain

33. Soil fertility can be improved by applying
    A. lime
    B. sodium chloride
    C. fertilizer
    D. pesticide

34. A tapeworm attaches itself firmly to its host's intestines by means of
    A. genital pores
    B. elongated appendages
    C. hooks and suckers
    D. modified mouth parts

35. Which of the following diseases affects cassava?
    A. Black pod
    B. Mosaic
    C. Smut
    D. Swollen shoot

36. The removal of undesirable birds from a flock of layers is referred to as
    A. caponizing
    B. culling
    C. moulting
    D. scalding

37. All the following methods are used to maintain lawns except
    A. fertilizing
    B. pruning
    C. rolling
    D. weeding

38. Substances that can be biologically broken down by bacteria are said to be
    A. biodegradable
    B. colloids
    C. detergents
    D. digestible

39. In the formation of an ionic compound, atoms of one of the combining elements mus
    A. convert neutrons to electrons
    B. lose protons
    C. gain protons
    D. gain electrons

40. The IUPAC name for the compound with the formula $CuSO_4$ is
    A. copper (II) tetraoxosulphate (VI)
    B. copper (I) tetraoxosulphate (VI)
    C. copper trioxosulphate (IV)
    D. copper (IV) trioxosulphate (II).

41. All the following may produce acids except
    A. lemon
    B. grapefruit
    C. fats and oils
    D. ash from cocoa husk

42. In the preparation of hydrogen, manganese dioxide acts as a
    A. catalyst
    B. drying agent
    C. reactant
    D. reducing agent

43. Temporary hardness of water is caused by
    A. sodium trioxodisilicate (IV)
    B. sodium trioxocarbonate (IV)
    C. iron (II) hydroxide
    D. magnesium hydrogen trioxocarbonate (IV)

44. The first action to take when a person is electrocuted is
    A. call the Fire Service
    B. push the person with dry stick
    C. call the electrical engineer
    D. switch of the electrical mains

45. Bronze is an alloy of
    A. lead and tin
    B. copper and tin
    C. copper and zinc
    D. lead and zinc

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46. The ore of aluminium is called
A. magnetite
B. aluminate
C. bauxite
D. duralumin

47. Corrosion of iron can be prevented by
A. galvanizing
B. heating
C. magnetization
D. soldering

48. The process in the hydrological cycle which results in water vapour condensing and falling back on the earth surface is
A. evaporation
B. infiltration
C. sublimation
D. precipitation

49. Which of the following is used extensively in medicine?
A. α-particles
B. ɣ-rays
C. X-rays
D. B-rays

50. A substance that increases the rate of chemical rection without itself being changed is
A. A catalyst
B. A reactor
C. An activator
D. An oxidant

END OF OBJECTIVE TEST

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