

**2014 BECE – INTEGRATED SCIENCE [PAPER 1]**

**OBJECTIVE TEST**

**45 minutes**

1. Which of the following types of teeth is used by mammals to tear food material?
  - A. Canines
  - B. Incisors
  - C. Molars
  - D. Premolars
  
2. The eclipse formed when the moon comes between the sun and the earth is known as
  - A. annular eclipse
  - B. lunar eclipse
  - C. solar eclipse
  - D. total eclipse
  
3. The element with the chemical symbol **S** is
  - A. silicon
  - B. silver
  - C. sodium
  - D. sulphur
  
4. The term leaching in soils refers to
  - A. accumulation of organic matter
  - B. decomposition of plant material.
  - C. fixation of nitrogen
  - D. removal of soil nutrients by water.
  
5. Which of the following statements about a plant cell is **correct**? It
  - A. does not have a nucleus
  - B. contains large vacuoles
  - C. is surrounded by the cell membrane only
  - D. does not have a definite shape
  
6. An example of a *derived quantity* is
  - A. length
  - B. mass
  - C. temperature
  - D. volume
  
7. Solid non-metals normally break into pieces when hammered because they are
  - A. brittle
  - B. ductile
  - C. lustrous

- D. malleable
8. Young rabbits are called
- A. bunnies
  - B. cubs
  - C. fingerlings
  - D. kids
9. Producers in an ecosystem are plants that
- A. attract insects
  - B. feed on other plants
  - C. feed on dead materials
  - D. manufacture their own food.
10. The form of energy produced from the nucleus of an atom is termed
- A. chemical energy
  - B. mechanical energy
  - C. nuclear energy
  - D. thermal energy
11. Which of the following elements is a semi-metal?
- A. Carbon
  - B. Nitrogen
  - C. Silicon
  - D. Sodium
12. A system of farming that leads to continuous destruction of virgin forest is
- A. mixed farming
  - B. mixed cropping
  - C. pastoral farming
  - D. shifting farming
13. The by-products of respiration are
- A. carbon dioxide and heat
  - B. carbon dioxide and water
  - C. oxygen and heat
  - D. oxygen and water.
14. Which of the following statements about a force are **correct**? It
- I is measured in newtons
  - II is measured in newton-metre
  - III can start a motion
  - IV can change the direction of a moving body.
- A. I and II only

- B. I and III only
  - C. I, III and IV only
  - D. I, II, III and IV
15. Which of the following substances is a solid-gas mixture?
- A. Lather
  - B. Bronze
  - C. Steel
  - D. Smoke
16. Weeds on a school farm could be controlled by
- A. handpicking
  - B. mowing
  - C. ploughing
  - D. tilling
17. An example of a non-living tissue used in osmosis experiment is
- A. cellophane
  - B. filter paper
  - C. potato
  - D. polythene
18. Kerosene is poured on the surface of a pond in order to
- A. make it unsafe for human consumption
  - B. make it safe for animal consumption
  - C. increase the surface tension
  - D. break the surface tension
19. Which of the following processes is used to separate insoluble solids from liquids?
- A. Crystallization
  - B. Evaporation
  - C. Filtration
  - D. Sublimation
20. The process of removing unproductive poultry birds from a flock is referred to as
- A. candling
  - B. culling
  - C. dehorning
  - D. drenching
21. Which of the following pairs of diseases can be spread easily when food is exposed to houseflies?
- A. Dysentery and malaria
  - B. Malaria and tuberculosis
  - C. Dysentery and cholera
  - D. Cholera and tuberculosis

22. The pressure in fluids
- A. acts differently in all directions
  - B. acts upwards at any point
  - C. decreases with depth
  - D. increases with depth
23. Which of the following processes involve a change in the state of matter from liquid to solid?
- A. Beans
  - B. Bread
  - C. Cabbage
  - D. Egg
24. Which of the following food items contains the **highest** amount of dietary fibre?
- A. Beans
  - B. Bread
  - C. Cabbage
  - D. Egg
25. An example of a disease vector is
- A. earthworm
  - B. liver fluke
  - C. tapeworm
  - D. tick
26. Which of the following devices is made of semiconductor?
- A. Capacitor
  - B. Inductor
  - C. Resistor
  - D. Transistor
27. Which of the following statements about the properties of water are **correct**? It
- I. is colourless and tasteless
  - II. is neutral to litmus paper
  - III. turns red litmus paper blue
  - IV. is a universal solvent
- A. I and II only
  - B. I and III only
  - C. I, II and IV only
  - D. I, III and IV only
28. The study of the soil profile of an area helps the farmer to
- A. control weed growth
  - B. determine the soil temperature

- C. determine the types of crop to grow.  
D. know the pesticides to use.
29. When a green leaf is placed in a test tube containing ethanol and heated over a water bath the leaf
- A. becomes soft  
B. changes colour to brown  
C. changes colour to blue-black  
D. is decolourized.
30. Which of the following sources of energy is / are renewable?
- I. Solar  
II. Crude oil  
III. Wind
- A. I only  
B. I and II only  
C. I and III only  
D. I, II and III
31. Which of the following substances is a compound?
- A. Hydrogen  
B. Nitrogen  
C. Oxygen  
D. Water
32. A disease-causing organism that is **most** difficult to control in crop production is
- A. bacterium  
B. fungus  
C. nematode  
D. virus
33. Which of the following organisms is/ are multicellular?
- I. Amoeba  
II. Paramecium  
III. Onion
- A. I only  
B. III only  
C. I and III only  
D. II and III only
34. In electronic circuits, LEDs are used to indicate the absence or presence of
- A. emitter and collector  
B. electric current  
C. p-n junction

- D. voltage source.
35. Steel is an alloy of iron and
- A. aluminium
  - B. carbon
  - C. silicon
  - D. gold
36. Soil aeration could be improved through
- A. mulching
  - B. irrigation
  - C. soil drainage
  - D. fertilizer application
37. Which of the following pairs of structures are part of the respiratory system of humans?
- A. Fallopian tube and alveoli
  - B. Pharynx and oesophagus
  - C. Trachea and alveoli
  - D. Trachea and duodenum
38. Which of the following effects is **not** a result of illegal connection of electricity? It can
- A. lead to fire outbreak
  - B. lead to frequent power cut-off
  - C. increase the flow of current in the supply chain.
  - D. cause damage to electrical appliance
39. Which of the following statements about the scientific method is / are **correct**? It provides
- I. logical procedure for arriving at knowledge.
  - II. knowledge that can be verified
  - III. knowledge that can never be changed
- A. I only
  - B. I and II only
  - C. I and III only
  - D. II and III only
40. An entrepreneur's decision as to what to produce is a/ an
- A. co-ordinating function
  - B. organizing function
  - C. planning function
  - D. supervising function.

**END OF PAPER**