

INTEGRATED SCIENCE 1

1. Steel is an alloy of iron and

- A. aluminium
- B. carbon
- C. silicon
- D. gold

2. An atom that has lost one or more electron(s) is called

- A. a molecule
- B. a proton
- C. an ion
- D. a negative particle

3. In all machines, the efficiency is

- A. always 100 %
- B. less than 100%
- C. more than 100%
- D. always 0%

4. In electronic circuits, LEDs are used to indicate the absence or presence of

- A. voltage source
- B. p-n junction
- C. electric current
- D. emitter and collector

5. 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

6. Which of the following substances is a compound?

- A. Hydrogen
- B. Nitrogen
- C. Oxygen
- D. Water

7. Which of the following source(s) 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

8. The pressure in fluids

- A. increases with depth
- B. decreases with depth
- C. acts upwards at any point
- D. acts differently in all directions

9. Which of the following chemical equations is balanced?

- A.  $N_2 + H_2 \rightarrow NH_3$
- B.  $N_2 + 3H_2 \rightarrow NH_3$
- C.  $N_2 + 3H_2 \rightarrow 2NH_3$
- D.  $N_2 + 3H_2 \rightarrow NH_3$

10. Lime juice tastes sour because it is

- A. acidic
- B. alkaline
- C. basic
- D. salty

11. A metal block has a mass of 1.0 kg. What is the volume of the block if its density is  $10 \text{ kgm}^{-3}$ ?

- A.  $0.01 \text{ m}^3$
- B.  $0.10 \text{ m}^3$
- C.  $1.00 \text{ m}^3$
- D.  $10.00 \text{ m}^3$

12. It is easier to move a heavy load with a crowbar when the

- A. effort distance is shorter than the load distance
- B. effort distance is longer than the load distance
- C. effort distance of distance equal to the load distance
- D. effort is equal to the load

13. Benedict's solution was added to a mixture in a test tube and it turned brick red when heated. The mixture is likely to contain

- A. glucose
- B. vitamin
- C. can start a motion
- D. can change the direction of a moving

14. Chlorine gas is an example of

- A. an atom
- B. an element
- C. a compound
- D. a molecule

15. 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

16. Kerosene is able to reach the other end of a wick by

- A. diffusion
- B. suction pressure
- C. capillary action
- D. osmosis

17. Which of the following processes is used to separate insoluble solids from liquids?

- A. Sublimation
- B. Filtration
- C. Evaporation
- D. Crystallization

18. Which of the following chemical compounds is used in removing hardness in water?

- A. NaCl
- B. NaOH
- C.  $Na_2CO_3$
- D.  $NaHCO_3$

19. When a thermometer is put in hot water, the mercury level rises because the mercury increases in

- A. density
- B. mass
- C. volume
- D. weight

20. The workdone when a force moves a body through a distance of 12 m is 720 J. The force applied is

- A. 8640 N
- B. 732 N
- C. 708 N
- D. 60 N

21. Which of the following compounds is neutral to litmus paper?

- A. HCL
- B.  $H_2O$
- C. NaOH
- D. KOH

22. A balanced diet is one which is made up of

- A. right proportions of protein, carbohydrates and oils
- B. equal amounts of protein, carbohydrates and oils
- C. enough water and iodated salt
- D. vegetables, fruits and water

23. The ovule in a flower develop to form the

- A. fruit
- B. leaf
- C. seed
- D. stem

24. Water drains faster through sand than clay because

- A. sand particles are rougher
- B. sand contains more air space
- C. clay particles are smother
- D. clay particles are bigger

25. The best method of checking erosion on a slope is

- A. cover cropping
- B. mixed contains
- C. contour ploughing
- D. mulching

26. The housefly is an agent for the spread of

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

27. Which of the following substances are carried by the blood?

- I. Nutrients
- II. Urine
- III. Oxygen
- IV. Carbon dioxide

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

28. 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

29. 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

30. The term leaching in soils refers to

- A. accumulation of organic matter
- B. decomposition of plant materials fixation
- C. fixation of nitrogen
- D. removal of soil nutrients by water

31. How many stages does the mosquito go through in its life cycle of development?

- A. 1
- B. 2
- C. 3
- D. 4

32. Which of the following enzymes helps in the digestion of protein in the human stomach?

- I. Proteases
- II. Amylase
- III. Lipase

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

33. Kidneys absorb water from the bloodstream humans through the process of

- A. diffusion
- B. egestion
- C. osmosis
- D. assimilation

34. An example of soil macro-nutrients is

- A. copper
- B. calcium
- C. phosphorus
- D. potassium

35. The vegetable crop that staking during its growth is

- A. sweet pepper
- B. garden eggs
- C. tomatoes
- D. hot pepper

36. The function of the white blood cells in human is to

- A. produce haemoglobin
- B. produce digestive enzymes ensure blood clot during an injury
- C. ensure blood clot during an injury
- D. produce antibodies to fight disease causing organisms

37. The carpel of a flower is made up of the following parts except

- A. filament
- B. ovary
- C. style
- D. stigma

38. A food web shows how

- A. food produced by plants is distributed to other parts of the plant.
- B. an organism protects itself in its environment
- C. organisms depend on one another for shelter
- D. food produced by green plants is distributed among organisms in a community

39. Balanced ration enables animals to

- A. increase infertility rate
- B. maintain normal growth
- C. increase meat production
- D. maintain energy level of work animals

40. Cultural practices are activities undertaken on a farm

- A. after harvesting and before processing
- B. before maturity and after harvesting
- C. after planting and before harvesting
- D. before transplanting seedlings