

Now answer the following questions.

1. The process by which liquid changes into vapour at a particular temperature is known as
 - A. boiling.
 - B. condensation.
 - C. evaporation.
 - D. melting.

2. Which of the following organisms has **neither** a nucleus nor membrane bound organelles?
 - A. Bacteria
 - B. Mucor
 - C. *Paramecium*
 - D. *Spirogyra*

3. A dibber is used for
 - A. dehusking.
 - B. pruning.
 - C. thinning.
 - D. planting.

4. An electric bulb is rated 120 W and 240 V. Determine the current it draws from the mains.
 - A. 0.5 A
 - B. 0.6 A
 - C. 1.0 A
 - D. 2.0 A

5. The layer of the atmosphere in which air travel is **most** convenient is
- mesosphere.
 - stratosphere.
 - thermosphere.
 - troposphere.
6. An agricultural system in which crops and animals are produced on the same piece of land at the same time is termed
- continuous cropping.
 - mixed cropping.
 - mixed farming.
 - pastoral farming.
7. Cowpea plants are used in crop rotation system of farming so that
- grazing animals would not destroy the crops.
 - nitrates would be added to the soil.
 - soil erosion could be checked.
 - weeds would be suppressed.
8. The angle of reflection of a ray is 40° . Determine the angle between the surface of the mirror and the ray.
- 40°
 - 50°
 - 80°
 - 180°
9. Fluid consists of
- solid and liquid only.
 - liquid and gas only.
 - gas and solid only.
 - liquid, solid and gas.
10. Which of the following compounds is a neutral oxide?
- CO_2
 - NO_2
 - MgO
 - CO
11. For grafting to be successful, the scion and stock **must** be of the same
- size.
 - length.
 - diameter.
 - texture.
12. A gas that gives a pop sound with a flame is
- ammonia.
 - carbon (IV) oxide.
 - hydrogen.
 - nitrogen.

13. Fifteen children from a class of 45 roll tongues. What percentage of the class are rollers?
- A. 25.3 %
 - B. 33.3 %
 - C. 35.3 %
 - D. 75.3 %
14. The **major** cause of post-harvest loss of stored millet in Ghana is
- A. bird attack.
 - B. insect attack.
 - C. mechanical injury.
 - D. high humidity.
15. Examples of plants with rhizome are
- A. ginger and fern.
 - B. onion and ginger.
 - C. yam and Irish potato.
 - D. onion and ferns.
16. The management practice which makes the transport of farm animals easy is
- A. castration.
 - B. dehorning.
 - C. identification.
 - D. quarantine.
17. Breeds of fowl which are reared for the purpose of producing meat are called
- A. broilers.
 - B. chicks.
 - C. hens.
 - D. layers.
18. The set-up used to separate water from ethanol should include
- A. separating funnel.
 - B. burette.
 - C. condenser.
 - D. volumetric flask.
19. Which of the following statements about sea breeze are **correct**? Sea breeze occurs
- I. during the day.
 - II. during the night.
 - III. as a result of convection currents.
- A. I and II only
 - B. I and III only
 - C. II and III only
 - D. I, II and III
20. Mineral salts from the soil pass into the root hair cells by
- A. turgor pressure.
 - B. active transport.
 - C. osmosis.
 - D. capillarity.

21. Which of the following salts can cause temporary hardness in water?
- $\text{Mg}(\text{HCO}_3)_2$
 - $\text{Fe}_2(\text{SO}_4)_3$
 - MgCl_2
 - CaSO_4
22. An example of inorganic fertilizer is
- compost.
 - farmyard manure.
 - green manure.
 - urea.
23. Two resistors each $5\ \Omega$ are connected in parallel. Determine their effective resistance.
- $2.5\ \Omega$
 - $6.4\ \Omega$
 - $10.0\ \Omega$
 - $25.0\ \Omega$
24. A person who suffers from myopia
- cannot see at all.
 - can see clearly from far.
 - can see clearly objects closer.
 - wears a converging lens for correction.
25. An example of a wind instrument is
- flute.
 - guitar.
 - violin.
 - xylophone.
26. Which of the following statements about compounds are **correct**?
- They are products of chemical combination.
 - Their constituents are present in fixed ratio by mass.
 - Their constituents keep their individual properties.
- I and II only
 - I and III only
 - II and III only
 - I, II and III
27. The equivalent of $161\ \text{K}$ in degree celcius is
- $161\ ^\circ\text{C}$
 - $112\ ^\circ\text{C}$
 - $-112\ ^\circ\text{C}$
 - $-161\ ^\circ\text{C}$
28. Which of the following processes uses solar energy?
- Drying materials,
 - Generation of electricity,
 - Heating of food substances.
- I and II only
 - I and III only
 - II and III only
 - I, II and III

29. Turgidity in plants is the result of
- water entering the cells.
 - water leaving the cells.
 - the withdrawal of cytoplasm from the cell wall.
 - diffusion of materials into the cells.
30. Which of the following non-metals conducts electricity?
- Diamond
 - Graphite
 - Silicon
 - Vanadium
31. The **main** function of ileum in mammals is
- digestion and assimilation.
 - assimilation and absorption.
 - digestion and absorption.
 - ingestion and digestion.
32. Living organisms which help to modify the physical and chemical composition of the soil are
- earthworms.
 - lichens.
 - bacteria.
- I and II only
 - I and III only
 - II and III only
 - I, II and III
33. The IUPAC name of the compound whose structural formula is illustrated below is
- $$\begin{array}{c} \text{CH}_3 - \text{C} = \text{C} - \text{CH}_3 \\ | \quad | \\ \text{CH}_3 \quad \text{Cl} \end{array}$$
- 2-chloro-3-methylbut-2-ene.
 - 2-methyl-2-chlorobut-2-ene.
 - 2-chloro-3-methyl-2-butane.
 - 2-methyl-2-chloro-2-butyne.
34. Organic compounds are **mostly**
- soluble in water.
 - not inflammable.
 - covalent.
 - ionic.
35. Which of the following components of the electromagnetic spectrum has the **highest** frequency?
- Gamma rays
 - Infra-red radiations
 - Microwave
 - Ultraviolet radiations
36. In mammals, the organ which deaminates excess amino acid to form urea is the
- kidney
 - liver.
 - pancreas
 - spleen.

37. Maintenance ration provides farm animals with nutrients required for
- egg production.
 - vital body processes.
 - growth and development.
 - development and maturity.
38. Which of the following compounds is a hydrocarbon?
- C_3H_8
 - $C_6H_{12}O_6$
 - CH_3CH_2OH
 - CH_3COCH_3
39. A characteristic feature of metamorphic and sedimentary rocks is that they are
- crystalline in structure.
 - non-crystalline in structure.
 - glassy in appearance.
 - metallic in appearance.
40. An example of naturally occurring weak acid is
- ammonia.
 - citric acid.
 - hydrochloric acid.
 - nitric acid.
41. The number of electrons present in the outermost shell of an element with atomic number 20 is
- 2
 - 6
 - 8
 - 10
42. The neutrons and protons in the nucleus of an atom are collectively called
- mass number.
 - neutrons.
 - nucleons.
 - atomic number.
43. Energy output in a device is equal to work done
- by the load.
 - on the load.
 - by the effort.
 - on the effort.
44. The shape of the lens of the human eye is varied by the action of the
- iris.
 - pupil.
 - ciliary muscle.
 - suspensory ligament.
45. Which of the following organelles is the site for protein synthesis?
- Golgi body
 - Mitochondrion
 - Nucleus
 - Ribosome

46. Fehling's solution is used in the laboratory to test for the presence of
- A. fats.
 - B. starch.
 - C. reducing sugars.
 - D. fatty acids.
47. Which of the following quantities have **both** magnitude and direction?
- I. Displacement
 - II. Speed
 - III. Momentum
- A. I and II only
 - B. I and III only
 - C. II and III only
 - D. I, II and III
48. Group of organs which form part of the central nervous system are the
- A. brain, the eyes and the ears.
 - B. brain and the spinal cord.
 - C. brain, the ears and the spinal cord.
 - D. eyes and the spinal cord.
49. Proteins are **usually** made up of
- A. sulphur, carbon and nitrogen.
 - B. carbon, hydrogen and nitrogen.
 - C. carbon, hydrogen and oxygen.
 - D. oxygen, carbon and sulphur.
50. Which of the following characteristics are **correct** about dairy cattle? They have
- I. large udder,
 - II. long legs,
 - III. wedged body.
- A. I and II only
 - B. I and III only
 - C. II and III only
 - D. I, II and III

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