

OBJECTIVE TEST

45 minutes

*Answer **all** the questions*

Do all rough work on this question paper

1. The instrument used to measure relative humidity is the
 - A. hydrometer.
 - B. hygrometer.
 - C. rain gauge.
 - D. wind vane.

2. The S.I. unit for density is
 - A. ms^{-1}
 - B. ms^{-2}
 - C. kg m^{-3}
 - D. $\text{m}^3 \text{kg}^{-1}$
3. When light travels from glass to air, its speed is
 - A. increased.
 - B. reduced.
 - C. halved.
 - D. unchanged.

4. When a piece of iron rod is brought near a permanent magnet for a while it becomes magnetised by
 - A. stroking method.
 - B. electrical method.
 - C. friction.
 - D. induction.

5. A rheostat is used in an electric circuit in order to
 - A. increase electric current only.
 - B. decrease electric current only.
 - C. keep electric current constant
 - D. increase and decrease electric current.

6. Which of the following statements about an opaque object is correct? An opaque object
 - A. allows light to pass through it partially.
 - B. allows light to pass through if fully.
 - C. forms a shadow.
 - D. does not form a shadow

7. One of the characteristics of a solid is that
 - A. its particles are tightly packed.
 - B. it assumes the shape of the container it occupies.
 - C. it has no fixed volume.
 - D. its particle can easily be separated.

8. The instrument used to measure current in an electrical circuit is the
 - A. ammeter.
 - B. photometer.
 - C. thermometer.
 - D. voltmeter.

9. The bottom of a pool of water appears closer to the surface than it is. Which of the following properties accounts for this observation?
 - A. Reflection
 - B. Transparency of water

- C. Refraction
- D. Rectilinear propagation

10. An example of a source of energy which is non-renewable is

- A. petroleum.
- B. solar.
- C. tide.
- D. wind.

11. Which of the following apparatus is not required in the process of distillation in the laboratory?

- A. Condenser
- B. Evaporating dish
- C. Bunsen burner
- D. Round bottom flask

12. The number of oxygen atoms present in three molecules of carbon dioxide is

- A. 3.
- B. 4.
- C. 5.
- D. 6.

13. The chemical formula Cl_2 represents two

- A. atoms of chlorine.
- B. neutrons of chlorine.
- C. ions of chlorine.
- D. molecules of chlorine.

14. Which of the following substances can rust?

- A. Aluminium
- B. Bauxite
- C. Copper
- D. Steel

15. Energy stored in food is referred to as

- A. chemical energy.
- B. heat energy.
- C. solar energy.
- D. kinetic energy.

16. Which of the following substances is a mixture?

- A. Water
- B. Sodium chloride
- C. Sodium chloride solution
- D. Iron filing

17. The mole is the S.I. unit of

- A. amount of substance.
- B. luminous intensity.
- C. temperature.
- D. mass of substance.

18. An atom has a proton number of 17 and neutron number 18. Determine the number of electrons in the third shell of the atom.

- A. 1
- B. 3
- C. 5
- D. 7

19. An example of mixtures that can be separated by the method of filtration is

- A. sugar in water.
- B. sand in water.
- C. oil in water.
- D. ink in water.

20. Which of the following liquids would turn blue litmus paper red?

- A. Vinegar
- B. Water
- C. Ammonia solution
- D. Bicarbonate solution

21. Which of the following particles constitute matter?

- I. Atoms
- II. Molecules
- III. Ions

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

22. An example of inheritable characteristics in humans is

- A. shape of nose.
- B. knowledge.
- C. ability to speak different languages.
- D. handwriting.

23. Which of the following statements about aerobic respiration is correct?

- A. The by-products are carbon dioxide and water.
- B. Little amount of energy is produced.
- C. Oxygen is not required.
- D. The by-products are alcohol and carbon dioxide.

24. Sperms produced by the testes in humans are temporarily stored in the

- A. epididymis.
- B. prostate gland.
- C. seminal vesicle.
- D. sperm duct.

25. Which of the following changes normally occur during old age in humans?

- A. Grey hair starts appearing
- B. Mental alertness increases
- C. Broadening of the chest
- D. Attraction to the opposite sex

26. One of the characteristics of wind pollinated flowers is that they

- A. are large and conspicuous.
- B. are usually scented.
- C. have nectar.
- D. have feathery stigma.

27. The testes is normally located outside the body of the male because

- A. the temperature of the body is too high for effective sperm production.
- B. it cannot increase in size when it is in the body.
- C. it can absorb moisture from the atmosphere.
- D. it occupies too much space.

28. The organelle which occupies the largest portion of a plant cell is the

- A. chloroplast.
- B. mitochondrion.
- C. nucleus.
- D. vacuole.

29. Movement of the ribs is brought about by the

- A. pleural cavity.
- B. intercostal muscle.
- C. larynx.
- D. trachea.

30. Fertilisation in humans usually occurs in the

- A. ovary.
- B. uterus.
- C. vagina.
- D. fallopian tube.

31. Which of the following processes is an example of osmosis?

- A. Spreading of perfume in a room
- B. Absorption of food nutrients into the small intestines
- C. Spreading of potassium permanganate in water
- D. Absorption of water into the root hairs

32. The part of a living cell which is semi-permeable is

- A. cytoplasm.
- B. nucleus.
- C. protoplasm.
- D. cell membrane.

33. Which of the following statements about soil profile is/are correct? It helps the farmer to determine

- I. soil fertility.
- II. water-holding capacity of the soil.
- III. depth of the soil.

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

34. Which of the following practices is not a principle of crop rotation?

- A. Legumes should be added to the rotation programme.
- B. Deep rooted crops should be followed by shallow rooted crops.
- C. Crops that are closely related should follow each other.
- D. Fallow periods should be allowed during the time of rotation.

35. The relative proportion of sand, silt and clay in a given sample of soil is soil

- A. profile.
- B. porosity.
- C. structure.
- D. texture.

36. The first factor to be considered when deciding to cultivate a particular vegetable is

- A. cultural practices.
- B. selection of land.
- C. harvesting.
- D. method of propagation.

37. Which of the following factors should be considered when selecting a site for vegetable crop production?

- I. Nearness to the market.
- II. Topography of the land.
- III. Nearness to the sea

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

38. Which of the following activities are cultural practices in the cultivation of cabbage?

- I. Pruning
- II. Weeding
- III. Watering

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

39. An example of a vegetable crop is

- A. cocoa.
- B. cotton.
- C. potato.
- D. tomato.

40. The majority charge carriers in a p-type semi-conductor are

- A. electrons.
- B. holes.
- C. neutrons.
- D. protons.

END OF PAPER

SOLUTIONS

1. B. hygrometer.

2. C. kg m^{-3}

3. A. increased

4. D. induction

5. D. increase and decrease electric current

6. C. forms a shadow

7. A. its particles are tightly packed
8. A. ammeter
9. C. Refraction
10. A. petroleum
11. B. Evaporating dish
12. D. 6
13. A. atoms of chlorine
14. D. Steel
15. A. chemical energy
16. C. Sodium chloride solution
17. A. amount of substance
18. D. 7
19. B. sand in water
20. A. Vinegar
21. D. I, II and III
22. A. shape of nose
23. A. The by-products are carbon dioxide and water
24. A. epididymis
25. A. Grey hair starts appearing
26. D. have feathery stigma
27. A. the temperature of the body is too high for effective sperm production
28. D. vacuole
29. B. intercostal muscle
30. D. fallopian tube
31. D. Absorption of water into the root hairs
32. D. cell membrane
33. D. I, II and III
34. C. Crops that are closely related should follow each other

35. D. texture

36. B. selection of land

37. A. I and II only

38. D. I, II and III

39. C. potato

40. B. holes