

Class 10 – Science Test

Maximum Marks: 80

Time: 3 Hours

General Instructions:

1. All questions are compulsory.
2. Draw diagrams wherever necessary.
3. Marks are indicated against each question.

Section A (1 Mark each)

Attempt all questions

1. Write the balanced chemical equation for the reaction between zinc and dilute sulphuric acid.
2. Name the gas released when hydrochloric acid reacts with sodium carbonate.
3. Which non-metal is a good conductor of electricity?
4. Name the process by which plants take in CO_2 from the atmosphere.
5. Which part of the human brain controls voluntary actions?
6. What is the focal length of a plane mirror?
7. Which phenomenon is responsible for twinkling of stars?
8. Write one harmful effect of ozone layer depletion.

Section B (2 Marks each)

Attempt all questions

9. State two differences between displacement reaction and double displacement reaction.
10. Why is plaster of Paris stored in a moisture-proof container?
11. Write two differences between metals and non-metals on the basis of physical properties.
12. Why are valves present in veins but not in arteries?
13. How does phototropism help a plant?
14. A ray of light incident at 30° on a plane mirror. What will be the angle of reflection?
15. Write two differences between biodegradable and non-biodegradable substances.

Section C (3 Marks each)

Attempt all questions

16. Write the balanced chemical equations for the following reactions:

- a) Magnesium reacting with oxygen
- b) Decomposition of calcium carbonate
- c) Reaction of iron with copper sulphate solution

17. What is a universal indicator? Explain with the help of an example.

18. Explain with reason:

- a) Sodium is kept immersed in kerosene.
- b) Carbon cannot displace zinc from its compound.
- c) Ionic compounds conduct electricity in molten state.

19. Explain the process of nutrition in amoeba with the help of a diagram.

20. How does the human eye adjust itself to see distant and nearby objects?

21. Draw a ray diagram to show the formation of image of an object placed beyond 2F of a convex lens.

22. Write any three ways in which humans affect the environment.

Section D (5 Marks each)

Attempt all questions

23.

- a) Explain the working of human heart with the help of a labelled diagram.
- b) Write any two differences between arteries and veins.

24.

- a) A student observes the colour of some aqueous solutions as follows:

Blue solution of copper sulphate turns colourless when zinc granules are added.

No change in colour when copper powder is added to zinc sulphate solution.

- i) Write the balanced equations for both reactions.
- ii) Give reason for the difference in observations.
- b) Define rancidity and write one method to prevent it.

25.

- a) What is myopia? State its causes and correction with the help of a ray diagram.
- b) Explain why danger signals are red in colour.

Section E (6 Marks)

Attempt the question

26.

- a) Draw the diagram of the human excretory system and label: kidney, ureter, urinary bladder, urethra.
- b) Explain the function of kidneys in human beings.

End of Question Paper