

PM SHRI KENDRIYA VIDHYALAYA, SITAPUR (first shift)

Periodic test -2 (2024-2025)

Class- X Subject -Science

M.M._40.

Time 90 min

(All questions are compulsory, question 1 to 10 mcqs, 11 to 13 assertion and reason, 14 case study based, question 15 matching and 16 to 19 short answer's and 20 to 21 long answer)

1. Which type of chemical reaction involves the combination of two or more substances to form a single product?
A) Synthesis reaction. B) Decomposition reaction. C) Replacement reaction D) Combustion reaction
2. Which of the following salts is formed by the reaction between hydrochloric acid and sodium hydroxide?
A) Sodium chloride B) Sodium sulfate C) Calcium carbonate D) Copper sulfate
3. Which of the following is an example of a salt?
A) Sugar B) Sodium chloride C) Water D) Oxygen
4. What is the by product of aerobic respiration?
A) carbon di oxide and water. B) oxygen and glucose C) ATP and lactic acid. D) Ethanol and carbon dioxide
5. What is the functional unit of the nervous system?
A) Neuron B) Axon. C) Synapse. D) Dendrite
6. Hormones are secreted by which type of glands?
A) Exocrine glands B) Endocrine glands C) Salivary glands D) Sweat glands
7. Which law describes the relationship between the angles of incidence and refraction?
A) Law of reflection B) Snell's law C) Law of conservation of energy D) Newton's law
8. Which of the following colors of light has the shortest wavelength?
a) Red b) Green. c) Blue d) Violet
9. What part of the eye is responsible for focusing light?
a) Cornea. b) Retina. c) Lens. d) Iris
10. What causes atmospheric refraction?
a) Change in temperature. b) Change in altitude. c) Change in density of air. d) Change in pressure

Options:.. 3marks

- a) Both assertion and reason are true, and reason is the correct explanation.
- b) Both assertion and reason are true, but reason is not the correct explanation.
- c) Assertion is true, but reason is false.

d) Assertion is false, but reason is true.

11.Assertion: Bases feel slippery to the touch.

Reason: Bases react with fats and oils to form soap.

12.Assertion: The nervous system is responsible for rapid responses to stimuli.

Reason: The nervous system uses electrical signals to transmit information quickly.

13.Assertion: The retina contains both rod and cone cells.

Reason: Rod cells are responsible for color vision, while cone cells detect light intensity.

14.case study based 3marks

Rahul, a 16-year-old student, was riding his bicycle when he suddenly saw a car approaching from the opposite direction. He immediately applied the brakes and steered his bicycle to the side to avoid the collision.

1.. Which nervous system helped Rahul respond quickly to the situation?

2.What type of coordination enabled Rahul to apply the brakes and steer his bicycle simultaneously?

3.Which sensory organ helped Rahul detect the approaching car?

15.Match the following 4 marks

Column A.

Column B

a.Laws of reflections.

a. Real image formation

b.Regular Reflection.

b. Angle of incidence = Angle of reflection

c. Refractive Index

c. Speed of light change

d. Spherical Mirror

d. Mirror-like surface

16.what is neutralization reaction with example? **2marks**

17.what is gland , types of gland and explain hypothalamus? **3 marks**

18.what is refractive index and describe medium of refraction ? **2 marks**

19. What is scattering of light and Tyndall effect? **3marks**

20.Describe the movement of plants and structure of neuron? **5 marks**

21.Defects of vision and their correction ? **5marks**