10TH CBSE SCIENCE MCQS TEST

1. When 2 mL of sodium hydroxide solution is added to few pieces of granulated zinc in a test tube and then warmed, the reaction that occurs can be written in the form of a balanced chemical equation as :

(a) $NaOH + Zn \rightarrow NaZnO_2 + H_2O$

(b) $2NaOH + Zn \rightarrow Na_2ZnO_2 + H_2$

(c) $2NaOH + Zn \rightarrow NaZnO_2 + H_2$

(d) $2NaOH + Zn \rightarrow Na_2ZnO_2 + H_2O$

2. Select from the following a decomposition reaction in which source of energy for decomposition is light :

(a) $2FeSO_4 \rightarrow Fe_2O_3 + SO_2 + SO_3$

(b) $2H_2O \rightarrow 2H_2 + O_2$

(c) $2AgBr \rightarrow 2Ag + Br_2$

(d) $CaCO_3 \rightarrow CaO + CO_2$

3. A metal and a non-metal that exists in liquid state at the room temperature are respectively :

(a) Bromine and Mercury

(b) Mercury and Iodine

(c) Mercury and Bromine

(d) Iodine and Mercury

4. Carbon compounds :

(i) are good conductors of electricity.

(ii) are bad conductors of electricity.

(iii) have strong forces of attraction between their molecules.

(iv) have weak forces of attraction between their molecules.

The correct statements are :

(a) (i) and (ii)

(b) (ii) and (iii)

(c) (ii) and (iv)

(d) (i) and (iii)

5. Consider the following compounds :

$FeSO_4$; $CuSO_4$; $CaSO_4$; Na_2CO_3

The compound having maximum number of water of crystallisation in its crystalline form in one molecule is :

(a) $FeSO_4$ (c) $CaSO_4$

(b) $CuSO_4$ (d) Na_2CO_3

6. Oxides of aluminium and zinc are :

(a) acidic

(b) basic

(c) amphoteric

(d) neutral

7. $MnO_2 + 4HCl \rightarrow MnCl_2 + 2H_2O + Cl_2$

The reaction given above is a redox reaction because in this case :

(a) MnO_2 is oxidised and HCl is reduced.

(b) HCl is oxidised.

(c) MnO_2 is reduced.

(d) MnO_2 is reduced and HCl is oxidised.

8. Consider the following statements :

(i) The sex of a child is determined by what it inherits from the mother.

(ii) The sex of a child is determined by what it inherits from the father.

(iii) The probability of having a male child is more than that of a female child.

(iv) The sex of a child is determined at the time of fertilisation when male and female gametes fuse to form a zygote.

The correct statements are :

(a) (i) and (iii) (c) (iii) and (iv)

(b) (ii) and (iv) (d) (i), (iii) and (iv)

9. Chromosomes :

(i) carry hereditary information from parents to the next generation.

(ii) are thread like structures located inside the nucleus of an animal cell.

(iii) always exist in pairs in human reproductive cells.

(iv) are involved in the process of cell division.

The correct statements are :

(a) (i) and (ii)

(b) (iii) and (iv)

(c) (i), (ii) and (iv)

(d) (i) and (iv)

10. In a nerve cell, the site where the electrical impulse is converted into a chemical signal is known as :

(a) Axon

(b) Dendrites

(c) Neuromuscular junction

(d) Cell body

11. A stomata closes when :

(i) it needs carbon dioxide for photosynthesis.

(ii) it does not need carbon dioxide for photosynthesis.

(iii) water flows out of the guard cells.

(iv) water flows into the guard cells.

The correct reason(s) in this process is/are :

(a) (i) only

(b) (i) and (iii)

(c) (ii) and (iii)

(d) (ii) and (iv)

12. At what distance from a convex lens should an object be placed to get an image of the same size as that of the object on a screen ?

(a) Beyond twice the focal length of the lens.

(b) At the principal focus of the lens.

(c) At twice the focal length of the lens.

(d) Between the optical centre of the lens and its principal focus.

13. The lens system of human eye forms an image on a light sensitive screen, which is called as :

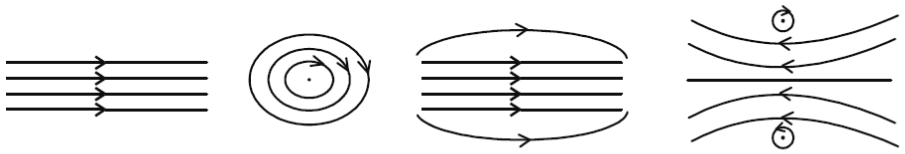
(a) Cornea

(b) Ciliary muscles

(c) Optic nerves

(d) Retina

14. The pattern of the magnetic field produced inside a current carrying solenoid is :



(a) (b) (c) (d)

15. Identify the food chain in which the organisms of the second trophic level are missing :

(a) Grass, goat, lion

(b) Zooplankton, Phytoplankton, small fish, large fish

(c) Tiger, grass, snake, frog

(d) Grasshopper, grass, snake, frog, eagle

16. In which of the following organisms, multiple fission is a means of asexual reproduction ?

(a) Yeast

(b) Leishmania

(c) Paramoecium

(d) Plasmodium

For Q. Nos. **17 to 20**, two statements are given – One labelled as **Assertion (A)** and the other labelled as **Reason (R)**. Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below :

(a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of the Assertion (A).

(b) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of the Assertion (A).

(c) Assertion (A) is true, but Reason (R) is false.

(d) Assertion (A) is false, but Reason (R) is true.

17. **Assertion (A) :** Hydrogen gas is not evolved when zinc reacts with nitric acid.

Reason (R) : Nitric acid oxidises the hydrogen gas produced to water and itself gets reduced.

18. **Assertion (A) :** Accumulation of harmful chemicals is maximum in the organisms at the highest trophic level of a food chain.

Reason (R) : Harmful chemicals are sprayed on the crops to protect them from diseases and pests.

19. **Assertion (A) :** The rate of breathing in aquatic organisms is much faster than in terrestrial organisms.

Reason (R) : The amount of oxygen dissolved in water is very high as compared to the amount of oxygen in air.

20. **Assertion (A) :** The rainbow is a natural spectrum of sunlight in the sky.

Reason (R) : Rainbow is formed in the sky when the sun is overhead and water droplets are also present in air.

1	(b) / $2\,NaOH + \ Zn \longrightarrow \ Na_2ZnO_2 + \ H_2$
2	(c) / $2\ AgBr \longrightarrow 2\ Ag + Br_2$
3	(c) /Mercury and Bromine
4	(c) / (ii) and (iv)
5	(d) / Na_2CO_3
6	(c) /amphoteric
7	(d) / MnO_2 is reduced and HCl is oxidised
8	(b) / (ii) and (iv)
9	(d) / (i) and (iv)
10	(c) /Neuromuscular junction
11	(c) / (ii) and (iii)
12	(c) /At twice the focal length of the lens
13	(d) /Retina
14	(a) / 
15	(c) /Tiger, grass, snake, frog
16	(d) / Plasmodium
17	(a) /Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A).
18	(b) / Both Assertion (A) and Reason (R) are true, but Reason (R) is ***not*** the correct explanation of Assertion (A).
19	(c) /Assertion (A) is true, but Reason (R) is false.
20	(c) /Assertion (A) is true, but Reason (R) is false.