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CLASS 10th

SYLLABUS

The Actual Question Paper contains 40 questions. The duration of the test paper is 60 Minutes

Section I. • Chemical Reactions And Equations • Acid ,Bases And Salts • Periodic Classification Of Elements & Metals And Non Metals • Carbon And Its Compounds • Life Processes & Control And Coordination • How Do Organisms Reproduce & Heredity And Evolution • Light –Reflection and Refraction & Human Eye And Colorful World • Electricity & Magnetic Effects Of Current • Sources Of Energy • Our Environment & Management Of Natural Resources. **Section II.** Applied Science

1. Which of the following is an endothermic reaction?

- (A) respiration (B) burning of wood
(C) photosynthesis (D) Both A and B
(E) None of these

Chapter : Chemical reactions and equations

Skill Tested : Types of chemical reactions

2. Which of the following is true, if a substance gives orange colour when tested with universal indicator?

- (A) the substance is a strong acid
(B) the substance is a weak acid
(C) the substance is strongly basic
(D) the substance is weakly basic
(E) None of these

Chapter : Acids, bases and salts

Skill Tested : Understanding properties of acids and bases

3. Which of the following is true, if element of group 2 of periodic table reacts with the element of group 17?

- (A) the compound formed conducts electricity
(B) ionic bonding takes place to form the compound
(C) no bonding will take place
(D) Both A and B
(E) None of these

Chapter : Periodic Classification of Elements & Metals and Non Metals

Skill Tested : Properties of elements on the basis of their position in periodic table

4. **Statement A: If graphite is burnt in oxygen then carbon dioxide gas is formed and no residue is left.**

Statement B: If diamond is burnt in oxygen then carbon dioxide gas is formed and no residue is left.

- (A) Statement B is False and Statement A is True.
(B) Statement A is False and Statement B is True.
(C) Both, Statement A and Statement B are True.
(D) Both, Statement A and Statement B are False.

Chapter : Carbon and Its Compounds

Skill Tested : Properties of various forms of carbon

5. Which of the following glands secretes hormone that plays a role in the growth of human body?

(A) hypothalamus gland
 (B) pituitary gland
 (C) thyroid gland
 (D) adrenal gland
 (E) None of these

Chapter : Life Processes & Control and Coordination

Skill Tested : Facts about hormones in our body

6. Which of the following organisms produces new organism by sexual reproduction?

(A) amoeba (B) hydra
 (C) spirogyra (D) rhizopus fungus
 (E) None of these

Chapter : How Do Organisms Reproduce & Heredity and Evolution

Skill Tested : Understanding types of reproductions in organisms

7. What will be the colour of eye for a human having gene combination of Dd, if gene D which is dominant gives brown eye colour and d which is recessive gives blue eye colour?

(A) blue (B) brown blue
 (C) brown (D) black
 (E) None of these

Chapter : How do organisms reproduce & heredity and evolution

Skill Tested : Understanding heredity

8. Statement A: Zooplanktons are animals in zoo. Statement B: Elephant is an example of zooplanktons.

(A) Statement B is False and Statement A is True.
 (B) Statement A is False and Statement B is True.
 (C) Both, Statement A and Statement B are True.
 (D) Both, Statement A and Statement B are False.

Chapter : Our environment & management of natural resources

Skill Tested : Understanding zooplanktons

9. A concave mirror has a focal length of 5cm, then at what distance an object should be placed in front of the concave mirror to obtain a image which is real, inverted and of same size as the object?

(A) 10cm (B) 20cm
 (C) 2.5cm (D) 15cm
 (E) None of these

Chapter : Light –Reflection and Refraction & Human Eye And Colorful World

Skill Tested : Understanding facts about concave mirror

10. What will be the resistance of the resistor when a 24V battery is connected across an unknown resistor, and there is a current of 2.5mA in the circuit?

(A) $9.6 \times 10^3 \ \Omega$ (B) $9.4 \times 10^3 \ \Omega$
 (C) $9.6 \times 10^6 \ \Omega$ (D) $9.2 \times 10^6 \ \Omega$
 (E) None of these

Chapter : Electricity & Magnetic Effects of Current

Skill Tested : Calculating resistance

11. Statement A: If slow moving neutrons strike the atoms of a heavy element uranium then nuclear fission reaction takes place.

Statement B: Nuclear fission reaction can be used to generate electricity.

(A) Statement B is False and Statement A is True.
 (B) Statement A is False and Statement B is True.
 (C) Both, Statement A and Statement B are True.
 (D) Both, Statement A and Statement B are False.

Chapter : Sources of Energy

Skill Tested : Facts about nuclear energy

12. Which of the following types of changes takes place when quicklime and water reacts to form slaked lime?

(A) fall in temperature
 (B) rise in temperature
 (C) change in colour
 (D) formation of yellow precipitate
 (E) None of these

Chapter : Chemical reactions and equations

Skill Tested : Understanding reaction between quicklime and water

13. Statement A: Group 17 of periodic table has elements that have 1 valence electrons.

Statement B: Group 17 of periodic table has elements that have 7 valence electrons.

- (A) Statement B is False and Statement A is True.
 (B) Statement A is False and Statement B is True.
 (C) Both, Statement A and Statement B are True.
 (D) Both, Statement A and Statement B are False.

Chapter : Periodic Classification of Elements & Metals and Non-Metals

Skill Tested : Properties of group 17 elements of periodic table

14. Match the following:

Column A	Column B
1. CH_3CHO	(A) propanoic acid
2. CH_3COCH_3	(B) ethanal
3. CH_3COOH	(C) propanone
4. $\text{CH}_3\text{CH}_2\text{COOH}$	(D) ethanoic acid

- (A) 1-B, 2-C, 3-D, 4-A
 (B) 1-B, 2-A, 3-D, 4-C
 (C) 1-D, 2-C, 3-A, 4-B
 (D) 1-D, 2-B, 3-A, 4-C
 (E) None of these

Chapter : Carbon And Its Compounds

Skill Tested : Formulae of carbon compounds

15. Match the following:

Column A	Column B
1. $\text{C} + \text{O}_2 \rightarrow \text{CO}_2$	(A) decomposition reaction
2. $\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$	(B) combination reaction
3. $\text{Mg} + 2\text{HCl} \rightarrow \text{MgCl}_2 + \text{H}_2$	(C) double displacement reaction
4. $\text{NaOH} + \text{HCl} \rightarrow \text{NaCl} + \text{H}_2\text{O}$	(D) displacement reaction

- (A) 1-B, 2-A, 3-D, 4-C
 (B) 1-C, 2-B, 3-D, 4-A
 (C) 1-A, 2-D, 3-B, 4-C
 (D) 1-A, 2-B, 3-D, 4-C
 (E) None of these

Chapter : chemical reactions and equations

Skill Tested : Understanding types of reactions

ANSWERS

1. C 2. C 3. D 4. C 5. B 6. E 7. C 8. D 9. A 10. A 11. B 12. B
 13. B 14. A 15. A