

## PPSC Chemistry Part I Physical Chemistry Online Test

Sr	Questions	Answers Choice
1	The expression of specific conductance is given by	A. $L_s = \frac{1}{R} \cdot \frac{l}{A}$ B. $L_s = \frac{L}{l} \cdot \frac{A}{l}$ C. $L_s = \frac{l}{L} \cdot \frac{A}{l}$ D. $L_s = \frac{r}{l} \cdot \frac{l}{A}$
2	Which of the following statements is not true with reference to ionic conductors.	A. Ionic conductance is due to movement of the ions B. It involves the transfer of matter C. It involves oxidation reduction reactions D. It decreases with rise in temperature.
3	The blue colour of $\text{CuSO}_4$ disappears on adding Zn granules to it . it is because of .	A. Oxidation of Cu atom B. Oxidation of $\text{Zn}^{2+}$ C. Oxidation $\text{Cu}^{2+}$ D. Oxidation of $\text{Zn}^{2+}$
4	When some quantity of electricity is passed through two electrolytic cells. The ratio of the mass of the products obtained at the cathode is the same as the ratio of their	A. Densities B. Atomic masses C. Equivalent masses D. Atomic numbers
5	Which of the following relation corresponds to Faraday law of electrolysis.	A. $m = ZIt$ B. $E = mc^2$ C. $E = h\nu$ D. None of the above
6	The device that convert the chemical energy of fuel directly into electrical energy is called.	A. Galvanic cell B. Electrolytic cell C. Fuel cell D. Concentration cell
7	The branch of chemistry which is concerned with the interrelation of electrical and chemical energy is called.	A. Reaction dynamics B. Electrochemistry C. Surface chemistry D. Kinetics
8	Which of the following solids is a better conductor of electricity.	A. Pure NaCl crystal B. Diamond C. Graphite D. Marble pieces
9	The point group of $\text{XeOF}_4$ is.	A. $C_{6v}$ B. $C_{4h}$ C. $D_{4h}$ D. $D_{2h}$
10	How many planes of symmetry are present in benzene.	A. 1 plane B. 3 planes C. 5 planes D. 7 planes
11	Ethylene belongs to.	A. $C_{2v}$ group B. $D_{2h}$ group C. $C_{2v}$ group D. $D_{2h}$ group
12	$\text{CO}$ belong to which group.	A. $C_{2v}$ B. $D_{2h}$ C. $C_{\infty v}$ D. $D_{\infty h}$
13	Which of the following molecules belongs to $C_{2v}$ point group.	A. $\text{H}_2\text{O}$ B. $\text{H}_2\text{S}$ C. $\text{NH}_3$ D. $\text{BF}_3$
14	Which of the following statement is not correct with respect to group theory.	A. Two elements of a group combine to form a third element of a group B. An element combines with itself to form another element of the group. C. Each element of the group obey associative law of combination D. Each element of the group obey commutative law of combination

D. Each group element has no reciprocal

15 Which of the following molecules have centre of symmetry.

- A. H<sub>2</sub>O
- B. HCl
- C. CO<sub>2</sub>
- D. H<sub>2</sub>SO<sub>4</sub>

16 Linear molecules have \_\_\_\_\_ axis of rotation

- A. C<sub>1</sub>
- B. C<sub>2</sub>
- C. C
- D. C<sub>3</sub>

17 In C<sub>4</sub>-axis of rotation, an object is rotated through an angle of.

- A.  $120^\circ$
- B.  $180^\circ$
- C.  $100^\circ$
- D.  $90^\circ$

18 In proper rotation (C<sub>n</sub>) an object is rotated through an angle of.

- A.  $a/n$  radians
- B.  $2\pi/n$  radians
- C.  $3\pi/n$  radians
- D.  $4\pi/n$  radians

19 Which of the following symmetry element leaves the molecule or an object unchanged.

- A. Proper rotation
- B. Improper rotation
- C. Inversion axis
- D. Identity

20 Which of the following item is not symmetry element.

- A. Plane of symmetry
- B. Inversion centre
- C. Improper rotation
- D. Optical activity