

CHEMISTRY

QUESTION SET-1

1. Which ray has the highest penetrating power?
a) α -ray b) γ -ray c) β -ray d) x-ray
2. Which aldehyde on ammonolysis gives a product called urotropine
a) formaldehyde b) acetaldehyde c) benzaldehyde d) propionaldehyde
3. The $[\text{OH}^-]$ of an aq. solution is 1×10^{-5} . The pH of the solution is
a) 5 b) 9 c) 4.5 d) 11
4. In a reversible reaction two substances are in equilibrium. If the concentration of each one is doubled. The equilibrium constant is
a) Reduced to its $\frac{1}{2}$ of its original value b) Reduced to its $\frac{1}{4}$ th of its original value
c) Doubled d) remains same or constant
5. How many coulomb are required for the oxidation of 1 mole of H_2O to O_2 ?
a) $1.93 \times 10^5 \text{C}$ b) $9.65 \times 10^4 \text{C}$ c) $3.86 \times 10^5 \text{C}$ d) $4.825 \times 10^4 \text{C}$
6. Which one of the following is an extensive property?
a) Mass b) pressure c) Temperature d) Density
7. The co-ordination number of the central metal atom of $[\text{CoBr}_2(\text{en})_2]\text{Cl}$ is
a) 5 b) 6 c) 3 d) 4
8. For the reaction $\text{PCl}_5(\text{g}) \rightleftharpoons \text{PCl}_3(\text{g}) + \text{Cl}_2(\text{g})$, the value of $K_c = 26$. The value of K_p at 250°C temp. will be
a) 0.61 b) 0.57 c) 0.83 d) 0.46
9. Aromatic compounds contains
a) $(2n+4)$ delocalized π -electrons b) $(4n+2)$ delocalized π -electrons c) $(3n+4)$ delocalized π -electrons
d) none
10. A radioactive isotope has a half-life of 10 days. If today there is 125 gm of it is left what was its mass 40 days earlier?
a) 600 gm b) 1000 gm c) 1250 gm d) 2000 gm

ANSWERKEYS OF SET-1

1. b

2. a

3.b

4.c

5.a

6.a

7.d

8.d

9.b

10.d

11.b

12.b

13.b

14.b

15.d

16.b

17.c

18.b

19.c

20.b