



CHEMISTRY

BOOKS - TS EAMCET PREVIOUS YEAR PAPERS

QUESTION PAPER 2015

Chemistry

1. Which of the following sets of quantum numbers is correct for an electron in 3d orbital.

A. $n=3, l=2, m=-3, s=+\frac{1}{2}$

B. $n=3, l=3, m=+3, s=-\frac{1}{2}$

C. $n=3, l=2, m=-2, s=+\frac{1}{2}$

D. $n=3, l=2, m=-3, s=-\frac{1}{2}$

Answer: C



Watch Video Solution

2. If the kinetic energy of a particle is reduced to half, its de Broglie wavelength becomes.

A. 2 times

B. $\frac{1}{\sqrt{2}}$ times

C. 4 times

D. $\sqrt{2}$ times

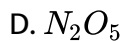
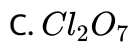
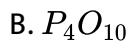
Answer: D



Watch Video Solution

3. Identify the most acidic oxide among the following oxides based on their reaction with water

A. SO_3



Answer: C

 [Watch Video Solution](#)

4. Match the following.

List I	List II
A. Rubidium	1. Germanium
B. Platinum	2. Radioactive chalcogen
C. Eka-silicon	3. s-block element
D. Polonium	4. Atomic number 78

A. $A \rightarrow 4, B \rightarrow 3, C \rightarrow 2, D \rightarrow 1$

B. $A \rightarrow 3, B \rightarrow 4, C \rightarrow 1, D \rightarrow 2$

C. $A \rightarrow 2, B \rightarrow 1, C \rightarrow 4, D \rightarrow 3$

D. $A \rightarrow 4, B \rightarrow 3, C \rightarrow 1, D \rightarrow 2$

Answer: B



[Watch Video Solution](#)

5. Which of the following does not have triple bond between the atoms?

A. N_2

B. CO

C. NO

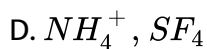
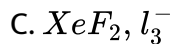
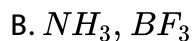
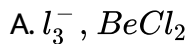
D. C_2^{2-}

Answer: C



[Watch Video Solution](#)

6. In which one of the following pairs the two species have identical shape, but differ in hybridisation?



Answer: A



[Watch Video Solution](#)

7. On the top of a mountain water boils at

A. high temperature

B. same temperature

C. high pressure

D. low temperature

Answer: D

 [Watch Video Solution](#)

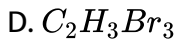
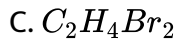
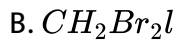
8. Which one of the following is the wrong statement about the liquid?

- A. It has intermolecular force of attraction
- B. Evaporation of liquids increase with the decrease of surface area
- C. It resembles a gas near the critical temperature
- D. It is an intermediate state between gaseods and solid state

Answer: B

 [Watch Video Solution](#)

9. A carbon compound contains 12.8% Carbon, 2.1% Hydrogen, 85.1% Bromine. The molecular weight of the compound is 187.9. Calculate the molecular formula.



Answer: C

 [Watch Video Solution](#)

10. 3.011×10^{22} atoms of an element weighs 1.15 g. The atomic mass of the element is

A. 23

B. 10

C. 16

D. 35.5

Answer: A

 [Watch Video Solution](#)

11. Which of one following is applicable is applicable for an adiabatic expansion of an ideal gas?

A. $\Delta E = 0$

B. $\Delta W = \Delta E$

C. $\Delta W = -\Delta E$

D. $\Delta W = 0$

Answer: B

 [Watch Video Solution](#)

12. On increasing temperature, the equilibrium constant of exothermic and endothermic reactions, respectively

A. increases and decreases

B. decreases and increases

C. increases and increases

D. decreases and decreases

Answer: B

 [Watch Video Solution](#)

13. What is the pH of the NaOH solution when 0.04 g of it is dissolved in water and made to 100 ml solution?

A. 2

B. 1

C. 13

D. 12

Answer: D

 [Watch Video Solution](#)

14. Which of the following methods is used for the removal of temporary hardness of water?

- A. Treatment with washing soda
- B. Calgon method
- C. Ion-exchange method
- D. Clark's method

Answer: D

 [Watch Video Solution](#)

15. Assertion (A): Alkali metals are soft and have low Melting and boiling points.

Reason (R): This is because interatomic bonds are weak.

- A. Both (A) and (R) are not true

B. (A) is true but (R) is not the correct explanation of (A)

C. (A) is true but (R) is false

D. Both (A) and (R) are true and (R) is the correct explanation of (A)

Answer: D

 [Watch Video Solution](#)

16. identify the correct statement

A. Lead forms compounds in +2 oxidation state due to inert pair effect.

B. All halogens show only negative oxidation state

C. Catenation property increases from boron to oxygen

D. Oxidation state of oxygen is -1 in ozonides

Answer: A

 [Watch Video Solution](#)

17. Assertion (A): Noble gases have very low boiling points.

Reason (R): All noble gases have general electronic configuration of ns^2np^6 (except He).

- A. Both (A) and (R) are true and (R) is the correct explanation of (A)
- B. (A) is false but (R) is true
- C. (A) is true but (R) is false
- D. Both (A) and (R) are true and (R) is the not the correct explanation of (A)

Answer: D



[Watch Video Solution](#)

18. Which of the following statements are correct?

- A. Ocean is sink for CO_2
- B. Greenhouse effect causes lowering of temperatures of earth's surface.

C. To control CO emission by automobiles, usually catalytic converter are fitted into exhaust pipes.

D. H_2SO_4 , herbicides and insecticides form mist.

A. C and D

B. A and B

C. B and D

D. A and D

Answer: D



[Watch Video Solution](#)

19. The bond angle in methoxy methane is

A. 111.7°

B. 109°

C. 108.9°

D. 180°

Answer: A

 [Watch Video Solution](#)

20. Which of the following compounds has zero dipole moment?

A. 1, 4-dichlorobenzene

B. 1, 2-dichlorobenzene

C. 1, 3-dichlorobenzene

D. 1-chloro-2-methyl benzene

Answer: A

 [Watch Video Solution](#)

21. Which of the following reagent is used to find out carbon-carbon multiple bonds?

- A. Grignard reagent
- B. Baeyer's reagent
- C. Sandmeyer's reagent
- D. Gattermann reagent

Answer: B



[Watch Video Solution](#)

22. Pure silicon doped with phosphorus is

- A. amorphous
- B. p-type semiconductor
- C. n-type semiconductor
- D. insulator

Answer: C

 [Watch Video Solution](#)

23. 18 g of glucose is dissolved in 90 g of water. The relative lowering of vapour pressure of the solution is equal to

A. 6

B. 0.2

C. 5.1

D. 0.02

Answer: D

 [Watch Video Solution](#)

24. A gas 'X' is dissolved in water at '2' bar pressure. Its mole fraction is 0.02 in solution. The mole fraction of water when the pressure of gas is

doubled at the same temperature is

A. 0.04

B. 0.98

C. 0.96

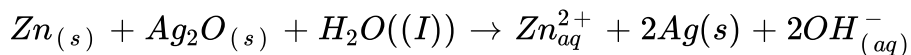
D. 0.02

Answer: C



Watch Video Solution

25. Calculate ΔG° for the following cell reaction.



$$E_{\text{Ag}^+/\text{Ag}}^\circ = +0.80\text{V} \text{ and } E_{\text{Zn}^{2+}/\text{Zn}}^\circ = -0.76\text{V}$$

A. -305kJ/mol

B. -301kJ/mol

C. 305kJ/mol

D. 301kJ/mol

Answer: B



[Watch Video Solution](#)

26. The time required for a first order reaction to complete 90% is T . What is the time required to complete 99% of the same reaction?

A. $2t$

B. $3t$

C. t

D. $4t$

Answer: A



[Watch Video Solution](#)

27. Which of the following is the most effective in causing coagulation of ferric hydroxide sol?

A. KCl

B. KNO_3

C. K_2SO_4

D. $K_3[Fe(CN)_6]$

Answer: D



[Watch Video Solution](#)

28. Which of the following process does not involve heating?

A. Calcination

B. Smelting

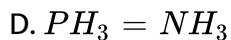
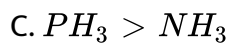
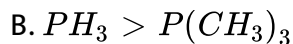
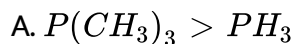
C. Roasting

D. Levigation

Answer: D

 [Watch Video Solution](#)

29. Which one of the following is correct with respect to basic character?



Answer: A

 [Watch Video Solution](#)

30. When $AbNO_3$ solution is added in excess to 1M solution of $CoCl_3ccNH_3$ one mole of $AgCl$ is formed ? What is the value if 'X'?

A. 1

B. 4

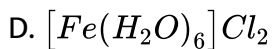
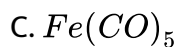
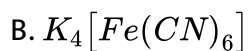
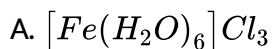
C. 3

D. 2

Answer: B

 [Watch Video Solution](#)

31. In which of the following coordination compounds, the central metal ion is in Zero oxidation state ?



Answer: C

 [Watch Video Solution](#)

32. The percentage of lanthanides and iron, respectively, in Misch metal are

A. 50, 50

B. 75, 25

C. 90, 10

D. 95, 5

Answer: D

 [Watch Video Solution](#)

33. Sea divers use a mixture of

A. O_2 , N_2

B. O_2 , H_2

C. O_2, He

D. N_2, H_2

Answer: C

 [Watch Video Solution](#)

34. The polymer obtained with methylene bridges by condensation polymer

A. PVC

B. buna-S

C. polyacrylonitrile

D. bakelite

Answer: D

 [Watch Video Solution](#)

35. The amino acid containing indole part is

A. tryptophan

B. tyrosine

C. proline

D. methionine

Answer: A



[Watch Video Solution](#)

36. The drug used as post operative analgesic in medicine is

A. L-dopa

B. amoxicillin

C. sulphapyridine

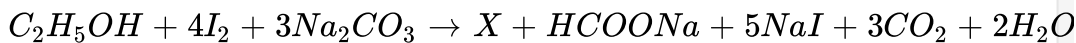
D. morphine

Answer: D



Watch Video Solution

37.



In the above reaction, 'X' is

A. diiodomethane

B. triiodomethane

C. iodomethane

D. tetraiodomethane

Answer: B



Watch Video Solution

38. Phenol on oxidation in air gives

A. quinone

B. catechol

C. resorcinol

D. o-cresol

Answer: A



Watch Video Solution

39. Identify the reagents A and B respectively in the following reactions.



A. $SOCl_2, H_2 / Pd - BaSO_4$

B. $H_2 / Pd - BaSO_4, SOCl_2$

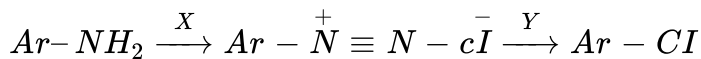
C. $SOCl_2, H_2O_2$

D. $SOCl_2, O_5O_4$

Answer: A

 Watch Video Solution

40. Predict respectively 'X' and 'Y' in the following reactions.



A. $NaNO_3$ and Cl_2

B. $NaNO_3 - HCl$ and HCl

C. $NaNO_2 - HCl$ and Cu / HCl

D. $NaNO_2 - HCl$ and $NaNH_2$

Answer: C

 Watch Video Solution