

FMM

11 - Std

Time : 1.30 HR

FIRST MID - TERM TEST - 2024

CHEMISTRY

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MARKS: 35

Answer all the questions :

PART - A

1. The number of water molecules in a drop of water weighing 0.018g is 10 x 1 = 10

a) 6.022×10^{26}

c) 6.022×10^{20}

b) 6.022×10^{23}

d) 9.9×10^{22}

2. The oxidation number of oxygen in hydrogen peroxide (H_2O_2) is

a) - 1

b) + 1

c) - 2

d) + 2

3. Two electrons occupying the same orbital are distinguished by

a) Azimuthal Quantum number

b) Spin Quantum number

c) Magnetic Quantum number

d) Principal Quantum number

4. **Assertion (A)** : Critical temperature of CO_2 is 304K. It can be liquefied above 304K **Reason (R)** : Volume is directly proportional to pressure at constant temperature.

a) Both A and R are true and R is the correct explanation of A

b) Both A and R are true but R is not the correct explanation of A

c) A is true but R is false

d) Both A and R are false

5. Match the following.

A. $1s < 2s < 2p < 3s < 3p$

1. Pauli's exclusion principle

B. $n = 1; l = 0; m = 0; s = +\frac{1}{2}$

2. Aufbau principle

C. $\Delta x \Delta p \geq \frac{h}{4\pi}$

3. Hund's rule

D. $1s^2 2s^2 2p \frac{1}{x} 2p \frac{1}{y} 2p \frac{1}{z}$

4. Heisenberg uncertainty principle

a) A - 2, B - 1, C - 4, D - 3

b) A - 2, B - 3, C - 1, D - 4

c) A - 3, B - 2, C - 1, D - 4

d) A - 3, B - 4, C - 2, D - 1

6. Maximum deviation from ideal gas is expected from

a) CH_4 (g)b) NH_3 (g)c) H_2 (g)d) N_2 (g)

7. In an adiabatic process, which of the following is true.

a) $q = w$

b) $q = 0$

c) $\Delta E = q$

d) $P\Delta V = 0$

8. Which is not an intensive property

a) density

b) boiling point

c) volume

d) molar volume

9. The isomer of ethanol is

a) acetaldehyde

b) dimethyl ether

c) acetone

d) methyl carbinol

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