

I)ANSWER ALL THE QUESTION :

5 X 2 = 10

1. What do you understand by the term mole.
2. Define equivalent mass
3. State Pauli's exclusion principle?
4. How many orbitals are possible for $n=4$?
5. Define modern Periodic law.

II)ANSWER ALL THE QUESTION :

5 X 3 =15

6. What do you understand by the term oxidation number?
7. What is the empirical formula of the following?
i) Fructose ($C_6H_{12}O_6$) found in honey ii)Caffeine ($C_8H_{10}N_4O_2$) a substance found in tea and coffee.
8. Give the electronic configuration of Mn^{2+} and Cr^{3+}
9. what are isoelectronic ions? Give examples
10. How many radial and angular nodes for 2s, 4p, 5d and 4f orbitals exhibit

IV)ANSWER ALL THE QUESTION :

5 X 5 =25

- 11.Distinguish between oxidation and reduction?
- 12.What is the difference between molecular mass and molar mass?
calculate the molecular mass and molar mass for Carbon monoxide.
- 13.Describe the Aufbau Principle.
- 14.Write short notes on the following.
- 15.Explain the pauli's method for the determination of ionic radius.