Full Marks - 10   **Time – 30 min**
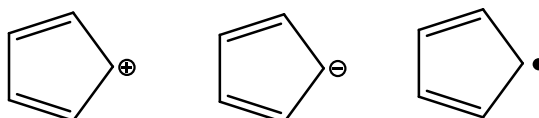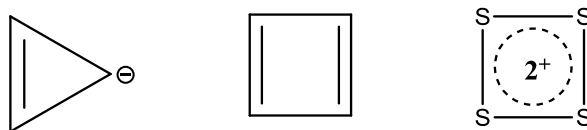
Answer any ten   **(1 x 10 = 10)**
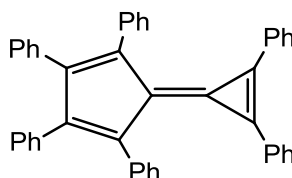
1. What is the unit of a, b for vander Waals gas constant?

2. What is the ratio of $C_{avg} : C_{mp} : C_{rms}$?

3. What is the molecularity of a reaction?

4. What do you mean by Boyle temperature?

5. Why higher order reaction is not possible?

6. What is the unit of A in Arrhenius equation?

7. What do you mean by turn-over number?

8. Calculate compressibility factor for a gas, which obeying $P(V-b) = RT$ equation.

9. What is pseudo first order reaction?

10. Give Lineweaver-Burk plot.

11. Write down the two important conditions for aromaticity.

12. Which of the following species is more stable and why?

13. Which one of the following species is aromatic?

14. Why the following compound has higher dipole moment?

15. What do you mean by anti-aromatic compound?