



SECTION - A

I. Answer any FIVE questions from the following **5X5= 25M**

1. Write a note on Inter-system crossing.
2. Explain carbonyl chromophore.
3. Explain Di-Π methane rearrangement.
4. Explain the protection of carboxylic acids by using ester formation.
5. Write about Mannich reaction.
6. Explain Robinson annulation.
7. Explain Suzuki coupling.
8. Explain Stille coupling.

SECTION - B

II. Answer ALL Questions **5X10=50M**

9. a) Explain the following
(i) Singlet and triplet states (ii) Jablonski diagram
(OR)
b) What is photo reduction? How it is affected by temperature and solvent?
10. a) Explain Norrish type-I reaction with mechanism.
(OR)
b) Explain Norrish type-II reaction with mechanism.
11. a) How amine group is protected by acetylation and benzoylation.
(OR)
b) Give a detailed account on the protection of alcohols.
12. a) Write a note on the following.
(i) Shapiro reaction (ii) Wittig reaction
(OR)
b) Explain phase transfer catalysis.
13. a) Illustrate the following
(i) Baylis-Hillman reaction (ii) Heck reaction
(OR)
b) Illustrate the following
(i) Ugi reaction (ii) Sonogashira coupling