



[Time: 3 Hours]

[Max. Marks: 75]

Advanced Organic Chemistry -I

Q.P. CODE: 5118

Your answers should be specific to the questions asked.

Draw neat, labeled diagrams wherever necessary.

LONG ESSAY (Answer any Three)

3 X 10 = 30 Marks

1. Discuss different methods applied for protecting and deprotecting (i) carbonyl (ii) carboxyl containing compound.
2. Write the different strategies for synthesizing five and six heterocyclic via retrosynthesis.
3. Write the synthetic application of Ullmann coupling and Michael addition reaction.
4. Explain SN1 and SN2 mechanism with suitable examples.

SHORT ESSAY (Answer any Nine)

9 X 5 = 45 Marks

5. Explain rearrangement reaction of carbocations with suitable example.
6. Explain the role of triphenylphosphine in Wittig reaction.
7. Write structure and uses of five medicinal compounds containing purine moiety.
8. Write the guidelines for dissection of molecules.
9. Give the synthetic applications of Imidazole and Quinoline moieties.
10. Write the synthetic applications of Aluminium isopropoxide and N-bromosuccinamide.
11. Explain the methods followed for C-C disconnection.
12. Discuss in detail Mannich reaction.
13. Write Sandmeyer's reaction and Ugi reaction.
14. Write the synthetic application of Michael addition reaction.

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