Draw neat, labeled diagrams wherever necessary.

NG ESSAY (Answer any Three) **3 X 10 = 30 Marks**

1. Explain mechanism, relative reactivity and orientation of E1 and E2 reactions.
2. Explain mechanism of Mannich reaction and Baeyer villager oxidation. Write their synthetic applications.
3. Explain synthesis of pyrazole and acridine. Write their applications.
4. Explain strategies for synthesis of three and four numbered rings with suitable examples.

SHORT ESSAY (Answer any Nine) **5 X 9 = 45 Marks**

5. Define free radicals. Explain its formation and stability. Write its synthetic application.
6. Define nitrenes. Explain their stability and formation. Write their synthetic applications.
7. Explain mechanism of ozonolysis.
8. Explain mechanism of Michael addition reaction.
9. Explain mechanism of protection of carbamates and amides.
10. Explain mechanism of protection of ethers and esters.
11. Explain role of Wilkinson reagent in synthesis with examples.
12. Explain synthesis of any one drug containing Acridine nucleus.
13. Explain synthesis of imidazole.
14. Explain C-C disconnection in alcohols with example.

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