Answer ANY FIVE questions. Answers to all parts of a question should be at the same place of the answer-script and in the same order as they appear in the question paper.

1. (a) Give systematic nomenclature of the following compounds:

[5 x 2

(b) Draw structures of the following heterocycles with numbering:(i) Piperidine; (ii) Piperazine; (iii) Purine; (iv) Isooxazole; (v) Tetrazole

[5 x 2

- 2. Discuss the following reactions:
 - (i) Ressert synthesis
 - (ii) Pictet Spengler synthesis

[4 x5

- (iii) Doebner von Miller synthesis
- (iv) Knorr pyrrole synthesis
- Give an account of different reactions of pyrrole. [20
 Write a note on aromaticity and non-aromatic behavior of furan. [20
 Give an account of nomenclature of heterocyclic compounds. [20
 Give an account of reactions of (i) Thiophene, (ii) Quinoline [10+10