

CS/2051

Paper - V
B-Organic Chemistry

5813/MH

Max. Marks : 26 Marks

Max. Time: 3 hrs

Min. Pass Marks: 35%

Candidates are required to attempt two questions (4 marks each) selecting each from section A & B. Section C is compulsory (2 marks each question).

SECTION - A

1. (a) Arrange furan, thiophene and pyridine in increasing order of aromaticity giving reason??
(b) Explain the mechanism of nucleophilic substitution in pyridine derivatives.
2. (a) Discuss Fischer indole synthesis.
(b) Discuss electrophilic substitution reactions of indole.
3. Write a note on the following
(a) Epoxy resin.
(b) Natural and synthetic rubbers.
4. (a) Discuss claisen condensation with example.
(b) Discuss Keto-enol tautomerism.

SECTION - B

5. (a) Discuss Ruff degradation?
(b) How will you convert glucose into fructose?
6. (a) Explain Mutarotation and give its mechanism?
(b) Discuss Cyclic structure of D (+) glucose?
7. (a) What do you mean by Zwitter ion and explain its physical and chemical properties?
(b) What do you mean by isoelectric point? Explain.
8. (a) Discuss secondary structure of protein.
(b) Discuss double helical structure of DNA?

SECTION - C

9. (a) Out of pyridine and pyrrole, which is more basic and why?
(b) Explain Ziegler-Natta polymerization?
(c) Discuss acylation in enamines?
(d) Discuss Disaccharides and oligosaccharides?
(e) Discuss denaturation of protein?