

APRIL/MAY 2019

MCH41 — ORGANIC CHEMISTRY — IV

Time : Three hours

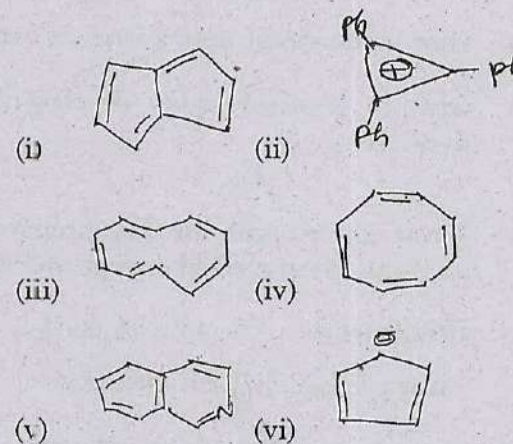
Maximum : 75 marks



SECTION A — (5 × 6 = 30 marks)

Answer ALL questions.

- (a) Find the following compounds are aromatic non-aromatic and antiaromatics.



Or

- (b) Discuss the aromaticity of non-benzenoid compound in detail.



2. (a) Write an account on Paterno - Buchi reaction with mechanism.

Or

- (b) Give the detailed study of photochemical reactions of Ketone.

3. (a) Explain the Merrifield synthesis of peptides.

Or

- (b) Briefly describe the biosynthesis of proteins.

4. (a) Discuss the structural elucidation and synthesis of penicilloic acid.

Or

- (b) How is the streptidine structure established?

5. (a) Give in detailed study of classification of dyes.

Or

- (b) Write an account for the preparation and applications of methyl orange and alizarin.

SECTION B — (3 × 15 = 45 marks)

Answer any THREE questions.

6. Discuss the aromaticity of the following

- (a) Non-aromatic system
- (b) Anti-aromatic system
- (c) Annulenes.

7. (a) Explain briefly the correlation diagrams for butadiene - cyclobutene system.

- (b) How would you describe the mechanism of Claisen rearrangement?

8. Write notes on

- (a) Determination of tertiary structure of protein.

- (b) Biosynthesis of cholesterol.

Discuss the structural elucidation and synthesis of tetracyclines.

10. Explain the preparations and applications of

- (a) Malachite green.

- (b) Methyl red.

- (c) Rhodamine - B.

