

Day : Wednesday
Date : 24/04/2019

S-2019-4388

Time : 02.00 PM TO 05.00 PM
Max. Marks : 60

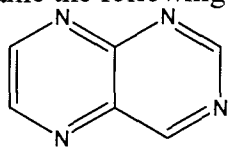
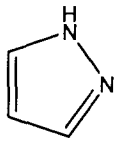
N.B.:

- 1) Q. No. 1 and Q. No. 5 are **COMPULSORY**. Out of remaining solve **ANY TWO** questions from each section.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to the both sections should be written in **SEPARATE** answer books.

SECTION – I

- Q.1** Solve **ANY FIVE** of the following: (10)
- a) Draw structure and give properties for Maltose.
 - b) Explain Tollen's test.
 - c) Explain epimerization of carbohydrates.
 - d) Draw structure for: Val., Phe.
 - e) Draw structure and give properties for Fructose.
 - f) Explain β -sheets and α -helix of proteins.
- Q.2** Explain properties and elaborative note on chemistry of glucose. (10)
- Q.3** a) How will you separate the mixture of amino acids? Give the experimentation with principle. (07)
- b) Explain the reactions given by amino acids. (03)
- Q.4** Write a note on **ANY TWO** of the following: (10)
- a) Protein structures
 - b) Glycosidic linkage
 - c) Hemiacetal formation in carbohydrates

SECTION – II

- Q.5** Solve **ANY FIVE** of the following: (10)
- a) Why pyridine is more aromatic than pyrrole?
 - b) Pyridine undergoes electrophilic substitution reaction mainly at 3-position; Why?
 - c) Draw structure and give numbering to following heterocycles:
(i) Xanthine (ii) Oxazole
 - d) Name the following heterocycles with numbering:

(ii) 
 - e) What are prostaglandins?
 - f) Define terms: (i) Fatty acids (ii) Disconnection
- Q.6** Give any three methods of preparations and two chemical reactions of thiophene and quinoline. (10)
- Q.7** a) Explain different rules of disconnections for retrosynthesis using synthesis of benzimidazole. (07)
- b) Give structure, numbering and name corresponding drugs for the following heterocycles: (i) Thiazole (ii) Purine (03)
- Q.8** Write a note on **ANY TWO** of the following: (10)
- a) Methods of preparation of pyridine
 - b) Chemical properties of pyrrole
 - c) Classification of lipids