

PARUL UNIVERSITY
FACULTY OF APPLIED SCIENCE
M.Sc. Winter 2018-19 Examination

Semester: 1
Subject Code: 11203101
Subject Name: Organic Chemistry & Biomolecules

Date: 05 /12/2018
Time: 10:30 am to 1:00 pm
Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

- Q.1. A) Write Brief note (Each of 04 marks) (08)**
 (a) Write Note on Inductive Effect.
 (b) Write Note on Hydrogen Bond.
- Q.1. B) Answer the following questions (Any two) (04)**
 (a) Answer the following (Each of 02 marks)
 1. Define Stereoisomerism.
 2. Define Structural Isomerism.
 (b) Write note on Enantiomers. (04)
 (c) Write note on Diastereoisomers. (04)
- Q.2. A) Answer the following questions. (04)**
 (a) Answer the following. (Each of 02 marks)
 1. Define Anomers.
 2. Define Epimers..
 (b) Write Short note on Glycoprotein. (04)
- Q.2. B) Answer the following questions (Any two) (03)**
 (a) Answer the following (Each of 01 marks)
 1. Define Proteoglycan.
 2. Define Carbohydrate.
 3. Define N-linked Glycoprotein.
 (b) Write Short note on Types of Organic Reactions. (03)
 (c) Write Short note on Furan. (03)
- Q.3. A) Write Brief note (Each of 04 marks) (08)**
 (a) Write note on Classification of Carbohydrate.
 (b) Write note on Peptidoglycan.
- Q.3. B) Answer the following questions (Any two) (04)**
 (a) Answer the following (Each of 02 marks)
 1. What is Ramachandran plot?
 2. Define Fatty Acids.
 (b) Write Short note on Peptide bond. (04)
 (c) Write Short note on Applications of Amino Acids. (04)
- Q.4. A) Answer the following questions. (04)**
 (a) Answer the following (Each of 02 marks)
 1. Define Optical Activity.
 2. Define O-linked glycoprotein.
 (b) Write Short note on Pyridine. (04)
- Q.4. B) Answer the following questions (Any two) (03)**
 (a) Multiple choice questions. (Each of 01 marks)
 1. Valency of Carbon is -----.
 a) 2 b) 3 c) 4 d) 1
 2. The repeating unit of proteins are -----
 a) Glucose units b) Amino acids c) Fatty acids d) Peptides
 3. Specific gravity of Lipid is -----
 a) 0.2 b) 0.86 c) 1.0 d) 1.5
 (b) Write Short note on Lipoproteins. (03)
 (c) Write Short note on Glycolipids. (03)