

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

Semester: 1/7**Subject Code: 11203104****Subject Name: Biochemistry of Macromolecules****Date: 07/12/2018****Time: 10:30am to 1:00pm****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.

- Q1. A) Essay type/ Brief note** [08]
Discuss the classification of protein in detail with example.
- Q1. B) Answer the following questions (Any two)**
- i) Discuss various functions of amino acids. [04]
 - ii) Define the following with example -Essential and non-essential amino acids. [04]
 - iii) Give differences between column chromatography & gel filtration technique. [04]
- Q2. A) Answer the following Questions.**
- i) Write a short note on the classification of carbohydrate. [04]
 - ii) Give differences between aldose and ketose sugar. [04]
- Q2. B) Answer the following Questions.(Any two)**
- i) Discuss the Osazone formation reaction. [03]
 - ii) Discuss briefly the chemical properties of carbohydrate. [03]
 - iii) Discuss Vant 's hoff rule. [03]
- Q3. A) Essay type/ Brief note** [08]
Discuss the structure and properties of prostaglandin.
- Q3. B) Answer the following Questions. (Any two)**
- i) What is essential fatty acid? Discuss the significance [04]
 - ii) Discuss the biological importance of steroid. [04]
 - iii) Differentiate between unsaturated and saturated fatty acid. [04]
- Q4. A) Answer the following Questions.**
- i) Which DNA sequencing method is widely used in till date? Discuss the method in detail. [04]
 - ii) Describe the double helical structure DNA. [04]
- Q4. B) Answer the following Questions. (Any two)**
- i) Discuss methylation & its affects. [03]
 - ii) Write a short note on nucleic acid. [03]
 - iii) What is super coiling of DNA? Explain it. [03]