

PARUL UNIVERSITY
FACULTY OF APPLIED SCIENCE
M.Sc., Winter 2019-20 Examination

Semester: 1
Subject Code: 11203104
Subject Name: Biochemistry of Macromolecules

Date: 29/11/2019
Time: 10:30am to 01:00pm
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.

- Q.1. A) Essay type(Each of 04 marks) (08)**
(a) Explain the structure of Proteins.
(b) Write a note on classification of carbohydrates.
- Q.1. B) Answer the following questions (Any two)**
(a) Short note(Each of 02 marks) (04)
1. List the Essential amino acids.
2. What is Polysaccharide?
(b) Short note on physical factors responsible for protein degradation/denaturation. (04)
(c) Short note chemical properties of carbohydrates. (04)
- Q.2. A) Answer the following questions.**
(a) Short note (Each of 02 marks) (04)
1. Note on aeromatic amino acids.
2. Note on Peptide bond.
(b) Short note on purification of proteins based on size. (04)
- Q.2. B) Answer the following questions (Any two)**
(a) Define(Each of 01 marks) (03)
1. Amino acid
2. Optical isomers
3. Iso electric point
(b) Short note on globular protein. (03)
(c) Short note on Vant's Hoff rule. (03)
- Q.3. A) Essay type (Each of 04 marks) (08)**
(a) Describe the functions of different RNA.
(b) Differentiate saturated and unsaturated fattyacids.
- Q.3. B) Answer the following questions (Any two)**
(a) Short note (Each of 02 marks) (04)
1. Note on spingolipid.
2. What is porphyrins?
(b) Short note on Sanger method. (04)
(c) Short note on Significance of cholesterol. (04)
- Q.4. A) Answer the following questions.**
(a) Short note (Each of 02 marks) (04)
1. Note on wax
2. What are restriction endonucleases? Name the types.
(b) Short note on prostaglandins (04)
- Q.4. B) Answer the following questions (Any two)**
(a) Do as directed(Each of 01 marks) (03)
1. Any two properties of steriod
2. List the types of DNA.
3. Name any two sequencing techniques.
(b) Short note on triglycerides. (03)
(c) Short note on structure of Chlorophyll. (03)