Roll No. .....

## Y - 186 / Y - 187 (S)

# B.Sc. (First Year) EXAMINATION, (Suppl./Second Chance) Sept.-2021 BIOCHEMISTRY

Paper – I, II

## BIOMOLECULES/BIOPHYSICAL AND BIOCHEMICAL TECHNIQUES

Time: Three Hours

 $Maximum\ Marks: 40 + 40 = 80\ (For\ Regular\ Students)$   $Minimum\ Pass\ Marks: 33\%$   $Maximum\ Marks: 50 + 50 = 100\ (For\ Private\ Students)$   $Minimum\ Pass\ Marks: 33\%$ 

**Note**—Attempt *all* questions.

### Section A

1. Give the names of—

- (a) an aldose.
- (b) a monosaccharide.
- (c) a disaccharide.
- (d) a polysaccharide.
- 2. How are saturated fatty acids structurally different from unsaturated fatty acids?. Name any one saturated and one unsaturated fatty acids. 13/17
- 3. Write short notes on—
  - (a) Fibrous proteins.
  - (a) Globular proteins.

#### **Section B**

- 4. Write principles of thermodynamics and comment on their applications in biochemistry.

  13/16
- 5. How sedimentation is used for molecular weight determination? Describe other applications of sedimentation also.

  13/17
- 6. Describe the basic principle of ion-exchange chromatography. How it is used for purification of proteins?