

Roll No. ....

**Y – 186 / Y– 187 (A)**

**B.Sc. (First Year) (SPECIAL) EXAMINATION, August 2021**

**(SECOND CHANCE)**

**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. Write short notes on : 13/16
  - (a) Anomers
  - (b) Epimers
  - (c) Diastereomers.
2. Write short notes on : 13/17
  - (a) Saponification of fats
  - (b) Functions of Sterols.
3. Write the structures of : 14/17
  - (a) Guanosine
  - (b) Thymine
  - (c) Cytidylic acid
  - (d) Adenine.

**(Section B)**

4. Define free energy. How it is different from standard free energy ? What do you understand by  $+\Delta G$  and  $-\Delta G$  and whether these are related to progress of reaction ? 13/16
5. Describe the principle and applications of UV-vis spectrophotometry. How it is different from colorimetry ? 13/17
6. Name the radioisotopes commonly used for biological studies. Which units are commonly used for measurements of radioactivity ? 14/17

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