

**AE-1228**  
B.Sc. (Part - I)  
Term End Examination, 2016-17

**BIOCHEMISTRY**

Paper - I

Biomolecules

*Time : Three Hours] [Maximum Marks : 50*

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**Note** : Answer **all** questions. All questions carry equal marks.

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**Unit-I**

1. Write short notes on the following :

- (a) Agar
- (b) Glycoprotein

**OR**

Describe the structure, properties and biological importance of Cellulose.

( 2 )

**Unit-II**

2. Write short notes on the following :
  - (a) Cerebrosides
  - (b) Sphingomyelin

***OR***

Write a detailed note on the role and importance of essential fatty acids with example.

**Unit-III**

3. Explain the structure of Peptide bond. Write the steps involved in the chemical synthesis of Polypeptides.

***OR***

Write short notes on the following :

- (a) Collagen
- (b) Hemoglobin

**Unit-IV**

4. Write a detailed account on the composition of DNA and RNA.

***OR***

( 3 )

Write short notes on the following :

- (a) Difference between Prokaryotic and Eukaryotic DNA
- (b) Relationship among Gene, Genome and Chromosomes

#### **Unit-V**

5. What do you mean by Porphyrins ? Explain in detail.

*OR*

Write short notes on the following :

- (a) Bilirubin
- (b) Importance of bile pigments

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