

**PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)**

**BSc DEGREE EXAMINATION DECEMBER 2017  
(First Semester)**

Branch - **BIOCHEMISTRY**

**STRUCTURAL BIOCHEMISTRY**

Time : Three Hours

Maximum : 75 Marks

**SECTION-A 120 Marks)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** marks (10 x 2 = 20)

- 1 Define Aldosugar and Ketosugar with example.
- 2 Name the type of linkages present in starch.
- 3 What is peptide bond?
- 4 Write the structure of any two sulphur containing amino acids.
- 5 What is waxes?
- 6 Define the term glycolipids.
- 7 What is nucleotides?
- 8 Name the purine and pyrimidine bases of DNA.
- 9 Write any two micronutrients and its biological function.
- 10 Which vitamin is called coagulation vitamin? Why?

**SECTION - B (25 Marks)**

Answer **ALL** Questions

**ALL** Questions Carry **EQUAL** Marks (5 x 5 = 25)

- 11 a Mention the properties of water.  
OR  
b Give the classification of carbohydrates.
- 12 a Define the following terms:  
(i) D & L - Aminoacids (ii) N & C - Terminals.  
OR  
b Write the structure and functions of Hemoglobin.
- 13 a Discuss the biological significance of lipids.  
OR  
b Explain the structure and functions of glycopospholipids.
- 14 a Give the differences between DNA and RNA.  
OR  
b Write short notes on A, B and Z - DNA.
- 15 a Discus the source, function and deficiency of vitamin - D.  
OR  
b Write the source and functions of iron. .

**SECTION - C (30 Marks)**

Answer any **THREE** Questions

**ALL** Questions Carry **EQUAL** Marks (3 x 10 = 30)

- 16 Explain the structure and properties of sucrose.
- 17 Discuss the methods of amino acid sequence determination.
- 18 Write classification of lipids.
- 19 Explain the double Helical structure of DN A.
- 20 Discuss the source, functions and deficiency of vitamin - A.