

**PSG COLLEGE OF ARTS & SCIENCE**  
(AUTONOMOUS)  
**BSc DEGREE EXAMINATION MAY 2019**  
(Fourth Semester)

Branch - **NUTRITION, FOOD SERVICE MANAGEMENT & DIETETICS**

**BIOCHEMISTRY**

Time : Three Hours

Maximum : 75 Marks

**SECTION-A (20 Marks)**

Answer **ALL** questions

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

- 1 Define Glycolysis.
- 2 What is meant by inversion of sucrose?
- 3 What are glycerophospholipids?
- 4 Give any two examples of PUFA.
- 5 What is denaturation of proteins?
- 6 State the sources of amino acid pool.
- 7 What are the components of nucleic acids?
- 8 Write the two important functions of haemoglobin.
- 9 What is the active site of an enzyme?
- 10 Write the role of NAD in glycolysis.

**SECTION - B (25 Marks)**

Answer **ALL** Questions

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

- 11 a Explain D-Glucose with chemical structure.  
OR  
b Write a note on oxidative phase of HMP shunt.
- 12 a Fats are called as stored fuel - Explain it.  
OR  
b Write a short note on a - oxidation of fatty acids.
- 13 a Discuss the properties of proteins.  
OR  
b Give the diagrammatic representation of protein bio-synthesis.
- 14 a Brief on ribosomal RNA.  
OR  
b How are purine nucleotides degraded?
- 15 a Describe competitive and non competitive inhibition with diagram.  
OR  
b What are the salient features of cytochrome P450 in detoxification reaction?

**SECTION - C (30 Marks)**

Answer any **THREE** Questions

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

- 16 Elaborate on TCA cycle.
- 17 How do you classify lipoproteins? Write the biological significance of the same.
- 18 Discuss on transamination and decarboxylation of proteins.
- 19 How is hemoglobin synthesized in human being?
- 20 Detail the factors influencing the rate of enzyme action.