

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

**BSc DEGREE EXAMINATION DECEMBER 2018  
(Fifth Semester)**

**Branch - BIOTECHNOLOGY**

**METABOLISM**

Time : Three Hours

Maximum : 75 Marks

**SECTION-A (20 Marks)**

Answer ALL questions

ALL questions carry EQUAL marks (10x2=20)

- 1 Define Substrate level Phosphorylation.
- 2 What is the role of UDP Glucose in Metabolism.
- 3 How does the body metabolize lipids?
- 4 What is the function of Glycolipids?
- 5 Define Gouty arthritis.
- 6 What is Tetrahydrofolic acid.
- 7 Role of Chorismic acid in metabolism.
- 8 Write the significance of Integration of Metabolism.
- 9 What is the importance of Homeostasis.
- 10 Define Glycogen storage disease type II.

**SECTION - B (25 Marks)**

Answer ALL Questions

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

- 11 a Analyse the role of NADIT in Glycolysis.  
OR  
h Explain the energetics of TCA Cycle.
- 12 a Explain the biosynthesis of Fatty Acids in brief.  
OR  
b Brief on role of Phosphatidylcholine.
- 13 a Explain the precursors of Nucleotides.  
OR  
b Write a short note on Uesh Nyhan Syndrome.
- 14 a Analvsc, the role o f Glutamate in the biosvnt̄hesis of aminoacid.  
OR  
b Explain Urea Cycle.
- 15 a Write a short notes on Mineral metabolism.  
OR  
b Write a short notes on alcoholism & role of exercise.

**SECTION - C (30 Marks)**

Answer any **THREE** Questions

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

- 16 Enumerate the pathways involved in Glycogen metabolism.
- 17 Differentiate Alpha and Omega oxidation.
- 18 Explain Pyrimidine biosynthesis in detail,
- 19 Describe the biosynthesis of Aromatic amino acid.
- 20 Elaborate the metabolic errors of Carbohydrate metabolism.