

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

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

**Branch - BIOTECHNOLOGY**

**METABOLISM**

Time : Three Hours

Maximum : 75 Marks

**SECTION-A (20 Marks)**

Answer **ALL** questions

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

- 1 Give the role of rate limiting enzyme in glycolysis.
- 2 What is Anabolism?
- 3 Name any two saturated fatty acids.
- 4 What is cc - Oxidation?
- 5 Explain the importance of HGPRT.
- 6 What is Lesh Nyhan syndrome?
- 7 Name the disorder caused by tyrosine metabolism.
- 8 Give the importance of urea cycle.
- 9 Define : BMR.
- 10 Define : Pompe disease,

**SECTION - B (25 Marks)**

Answer **ALL** Questions

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

- 11 a Give the energetics of TCA cycle.  
OR  
b Write a brief note on the homeostasis of blood glucose.
- 12 a Explain the p - oxidation of saturated fatty acids.  
OR  
b How cholesterol gets Catabolised?
- 13 a Write the salvage pathway of pyrimidine biosynthesis.  
OR  
b Give a note on the reasons for Gout.
- 14 a Explain : Transamination reaction.  
OR  
b How tyrosine is synthesized?
- 15 a What is Albinism? Give a brief note on the same.  
OR  
b Write short notes on alcoholism.

**SECTION - C (30 Marks!)**

Answer any **THREE** Questions

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

- 16 Write in detail about the Glycogen metabolism.
- 17 How saturated fatty acids are biosynthesized?
- 18 Explain the denovo synthesis of purines.
- 19 Write an essay on the integration of metabolism.
- 20 How Ca and I get metabolized?