

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 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 Write the energetics of TCA cycle.
- 2 Write a brief note on reserve food material of animals.
- 3 How does palmitoyl CoA gets oxidized?
- 4 What are the hormones synthesized from cholesterol?
- 5 Describe the structure of Pyrimidine bases.
- 6 Explain the causes of Gout.
- 7 Explain the Deamination reaction.
- 8 List out the precursors of aminoacids phenylalanine and tyrosine.
- 9 What do you mean by BMR?
- 10 Explain the characteristic features of phenylketonuria.

SECTION - B (25 Marks)

Answer **ALL** Questions

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

- 11 a Explain the steps involved in Glycolysis.
OR
b Describe the role of hormones that regulates blood glucose level.
- 12 a Explain the biosynthesis of cholesterol.
OR
b * Write brief note on Omega oxidation.
- 13 a Explain the metabolic disorders of purines.
OR
b Explain the biosynthesis of pyrimidines.
- 14 a Explain the biosynthesis of phenylalanine.
OR
b Write a note on liver in starvation.
- 15 a Write a note on metabolic errors in Jaundice.
OR
b Brief the causes of Obesity.

SECTION - C (30 Marks)

Answer any **THREE** Questions

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

- 16 Explain the steps involved in Gluconeogenesis. Add a note on location of this pathway.
- 17 Describe the biosynthesis of phospholipids.
- 18 Explain the Denovo pathway of purine biosynthesis.
- 19 Explain urea cycle and its energetics.
- 20 Describe the functions, synthesis, dietary requirements and absorption of Calcium.