14BTU18

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2019
(Fifth Semester)

Branch - **BIOTECHNOLOGY**

METABOLISM

Time : Three Hours Maximum : 75 Marks

SECTION-A (20 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks (1 0 x 2 = 20)

1 Define substrate level phosphorylation.
2 Name any two examples of homeostasis.
3 What are the functions of cholesterol?
4 List out the components of ketone bodies
5 Draw the structure of Deoxy ribose sugar.
6 What is the role of allopurinol in treatinggout?
7 List out the amino acids involved in UreaCycle.
8 List out the energy reserves of a normal man.
9 How is BMI calculated?
10 List out the essential trace elements.

SECTION - B (25 Marks)
Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5 x 5 = 25)

11 a Explain the energitics of TCA cycle.
OR
b Describe the pathway of Glycogenolysis.

12 a Write short notes on cerebrosides.
OR
b Describe the features of plasmalogen.

13 a Draw the chemical structure of pyrimidines.
OR
b Write short notes on lesh nyhan syndrome.

14 a Explain the transamination reaction.
OR
b Bring out the importance of adipose tissue in starvation.

15 a Describe the features of Pompe's disease.
OR
Explain the sources for dietary requirements and adsorption of calcium in human body.

SECTION - C (30 Marks)
Answer any **THREE** Questions
ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

16 Explain the Embden Meyerhof. Parnas pathway.
17 Describe the P oxidation of fatty acids.
18 Explain the salvage pathways of purines.
19 Describe the biosynthesis of aromatic amino acids.
20 Describe the metabolic disorders of Carbohydrate & Protein.