PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2019
(Fourth Semester)

Branch - **BIOCHEMISTRY**

MET ABOLISM-I

Time : Three Hours Maximum : 75 Marks

SECTION-A (20 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks (10 x 2 = 20)

1 Define Metabolism.
2 Name any two anabolic reaction.
3 Define AG° free energy change.
4 What are high energy compounds give two examples.
5 Give the rate limiting equation/step of glycolysis.
6 Define Pasteur effect.
7 Name two uncouplers.
8 State gluconeogenesis significance in
9 What is covalent modification?
10 Name the alternate pathway for glycolysis.

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

11 a Discuss in brief on Traces techniques and its applications.
OR
b How whole organism studies correlate metabolism? Discuss.

12 a Discuss the AG° in biochemical reactions.
OR
b Justify the unique role of ATP in biosynthesis.

13 a Outline the aerobic glycolytic cycle and discuss.
OR
b Discuss Rapaport-Leubering cycle and its significance.

14 a What is Anaplerosis? Discuss in short.
OR
b Give an account inhibitors of ETC.

15 a Discuss glycogenolysis in muscle.
OR
b Outline Gluconicacid pathway.

SECTION - C 130 Marks)
Answer any **THREE** Questions
ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

16 Describe the Isolation protocols of subcellular organelles.
17 Write an elaborate essay on Enzymes of Biological oxidation.
18 Outline and describe the entry of different sugars in glycolysis.
19 Describe the reactions and energitis of TCA cycle.