TOTAL PAUL : I

14BCV13 / 14BCU13

PSG COLLEGE OF ARTS & SCIENCE

(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2019

(Fourth Semester)

Branch - **BIOCHEMISTRY**

METABOLISM -1

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 List out the marker enzymes of mitochondria.
3 What do you mean by free energy?
4 What are high energy compounds?
5 Define glycolysis.
6 What is Pasteur effect?
7 Write the components of ETC.
8 What are uncouplers?
9 Define glycogenesis.
10 Write the biological importance of HMP pathway.

SECTION - B (25 Marks)

Answer **ALL** Questions

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

11 a Explain the methods involved in study of metabolic pathways.

OR

b Give an account on role of marker enzymes in metabolic studies.

12 a Explain the free energy calculation with a examples.

OR

b Enumerate the biological role of high-energy compounds.

13 a Explain the conversion of pyruvate to Acety CoA.

OR

b Discuss about the Rapaport - Leubering cycle and its biological importance.

14 a Write about the inhibitors of oxidative phosphorylation.

OR

b Citric acid cycle as a amphibolic in nature explain.

15 a Explain covalent modification in glycogen metabolism.

OR

b Write in detail about HMP pathway.

SECTION - C (30 Marks)

Answer any **THREE** Questions

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

16 How sub cellular organelles are seperated?

17 What is Free Energy? Explain with suitable example.

18 Describe the glycolytic pathway and explain with energetic pathway.

19 Describe the mechanism of chemiosmatic theory.

"~ **nnttvwav in liver cell.**