

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS) ----- '-----

BSc DEGREE EXAMINATION^{MAA} 2019
(Fifth Semester)

Branch - **BIOTECHNOLOGY**

METABOLISM

Time: Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

: Answer ALL questions

ALL questions carry EQUAL marks (10x2 = 20)

- 1 Give the importance of TCA cycle.
- 2 Give the importance of gluconeogenesis.
- 3 Name any 2 unsaturated fatty acids.
- 4 What is Omega oxidation?
- 5 Define: Gout.
- 6 Name the Pyrimidines.
- 7 What is Starvation?
- 8 Name the diseases associated with phenyl alanine metabolism.
- 9 What is Albinism?
- 10 Name any 4 diseases due to metabolic errors,

SECTION - B (25 Marks!)

Answer ALL Questions

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

- 11 a Give the pathway of Glycogenesis.
OR '
b Give the pathway of Glycogenolysis.
- 12 a How saturation of fatty acids held?
OR
b How omega-3-fattuy acids are activated?
- 13 a Write the salvage pathway of Purine biosynthesis.
OR
b Give a note on Lesh-Nyhan.Syndrome.
- 14 a Write the biosynthesis of Phenyl alanine.
OR
b Explain the deamination of proteins.
- 15 a What is BMR? How it is measured?
OR
b Explain the metabolic changes during phenyl ketonuria.

SECTION - C (30 Marks)

Answer any **THREE** Questions

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

- 16 Write: TCA cycle and its energetics.
- 17 Explain the biosynthesis of cholesterol.
- 18 Explain the denovo synthesis of Pyrimidines.
- 19 Give the Ufea cycle's pathway and energetics.
- 20 Write the metabolism of Cu & Zn.