

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

**BSc DEGREE EXAMINATION DECEMBER 2017
(Fourth Semester)**

Branch - ZOOLOGY

BIOCHEMISTRY

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks (10 x 2 = 20)

- 1 Define polysacchacides. Give example.
- 2 Give the structure of glucose and fructose.
- 3 List any four biological functions of fatty acids.
- 4 Define buffers.
- 5 Define isoelectric P^H of profeins.
- 6 What is active site?
- 7 Define Rf.
- 8 Give any four significance of nucleic acids.
- 9 Define |3 - oxidation.
- 10 What is transamination ?

SECTION - B (25 Marks)

Answer **ALL** Questions

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

- 11 a Write briefly on the reactions of monosaccharides.
OR
b Write an account on Glycogen.
- 12 a Explain the structure and function of phospholipids.
OR
b Write briefly on the structure of water and its significance.
- 13 a Explain the classification of amino acids.
OR
b Write an account on the role of coenzyme in enzyme action.
- 14 a Explain colorimetry briefly.
OR
b Elaborate on the significance of Nucleic acids.
- 15 a Explain glycolysis with energetics.
OR
b Write on Urea cycle.

SECTION - C (30 Marks)

Answer any **THREE** Questions

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

- 16 Explain the classification of monosaccharides & add a note on its biological significance.
- 17 Explain in detail biological buffer systems.
- 18 Elaborate in detail the structure of proteins.
- 19 What is DNA? Explain its structure.
- 20 Explain p- oxidation of fatty acid in detail.