

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION DECEMBER 2019
(Fourth Semester)

Branch - NUTRITION, FOOD SERVICE MANAGEMENT AND DIETETICS

BIOCHEMISTRY

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer ALL questions

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

- 1 What are polysaccharides? Mention its types.
- 2 Give any two significance of HMP shunt pathway.
- 3 Define oxidative phosphoryation.
- 4 Write the structure of lecithin and cephalin.
- 5 What is denaturaton of proteins?
- 6 Define conjugated proteins. Give examples.
Mention the purine and pyrimidine bases. Give the structure of any one purine base.
- 8 List any two functions of ATP.
- 9 What are enzymes?
- 10 Give the principles involved in paper chromatography.

SECTION - B (25 Marks!)

Answer ALL Questions

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

- 11 a Write a note on glycolysis.
OR
b What are carbohydrates? Give its classification.
- 12 a Enumerate the steps involved in (3-oxidation of fatty acids).
OR
b How are lipids classified? Explain with examples.
- 13 a Write a brief note on deamination and transamination reactions.
OR
b Describe Hensleit-Kreb's cycle.
- 14 a Give the Watson and Crick model of DNA.
OR
b Explain briefly about haemoglobin synthesis.
- 15 a List and explain the various detoxification reactions.
OR
b Give the role of B-vitamins in various metabolic pathways.

SECTION - C (30 Marks)

Answer any THREE Questions

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

- 16 Write a detailed note on the interrelationship between fat, carbohydrates and protein metabolism.
- 17 Explain protein biosynthesis in detail.
- 18 a) Describe the structure, types and functions of RNA in detail. (7)
b) Differentiate between DNA and RNA. (3)
- 19 a) Give the classification of enzymes. (3)