Code No. 3041

FACULTY OF SCIENCE

B.Sc. (CBCS) II – Semester Examination, May / June 2019

Subject : Biochemistry

Paper – II

Chemistry of Nucleic Acids and Biochemical Techniques

Time : 3 hours **Max. Marks : 80**

Part – A (5 x 4 = 20 Marks)
(Short Answer Type)

Answer any Five of the following questions.

1 Give an account on spectral properties of nucleic acids.
2 What is the composition of a nucleoside?
3 What is the significance of melting temperature of DNA?
4 Write a note on DNA supercoiling.
5 What is the principle of fluorimetry?
6 Give an account on principle of spectrophotometry.
7 Write a note on paper chromatography.
8 Give an account on principle of gel filtration chromatography.

Part – B (4 x 15 = 60 Marks)
(Essay Answer Type)

Answer ALL questions from the following :

9 a) Give an account on DNA, RNA and formation of phosphodiester linkages and the factors that influence it's stability.

OR

b) What is the difference between the purines and the pyrimidines?

10 a) Discuss about the types of RNA and their functions.

OR

b) Give an account on double-helix structure of DNA, add a note on reassociation kinetics.

11 a) Describe the principle and applications of centrifugation technique.

OR

b) Compare and contrast colorimeter and spectrophotometer.

12 a) Give an account on principle and applications of thin layer chromatography.

OR

b) Explain the principle and application of affinity chromatography.

******