

D 72995

(Pages : 2)

Name.....

Reg. No.....

**FIRST SEMESTER M.A./M.Sc./M.Com. DEGREE EXAMINATION
DECEMBER 2019**

(CBCSS)

Zoology

ZOL 1C 02—BIOPHYSICS AND BIostatISTICS

(2019 Admissions)

Time : Three Hours

Maximum : 30 Weightage

I. Answer any *four* questions. Each carries 2 weightage :

- 1 State and explain Fick's law.
- 2 What is echolocatibn ?
- 3 What is autoradiography
- 4 Give a short account of PET.
- 5 What is Simpson's Dominance index ?
- 6 What are scatter diagrams ?
- 7 What is quartile deviation ?

(4 × 2 = 8 weightage)

II. Answer any *four* questions. Each carries 3 weightage :

- 8 Describe the biological importance of colloids.
- 9 Derive Henderson-Hasselbach equation.
- 10 Give an account of different types of radiation detectors.
- 11 Write the principle and applications of X - ray crystallography.
- 12 Explain probability distribution.
- 13 Describe different types of regression analysis.
- 14 Explain the methods of data collection and classification.

(4 × 3 = 12 weightage)

III. Answer any *two* questions. Each carries 5 weightage :

- 15 Write an essay on the applications of nanotechnology in healthcare and environmental management.
- 16 Describe different types of chromatography.

Turn over

17 Write an essay on patch clamp recording.

18 (a) Distinguish between regression and correlation analysis.

(b) Calculate the correlation coefficient for the following data :

X	:	2	3	4	5	6	8
Y	:	3	5	6	9	10	11

(2 × 5 = 10 weightage)