20UZY509

FOR THE CANDIDATES ADMITTED DURING THE ACADEMIC YEAR 2020 ONLY) **REG.NO**

NGM COLLEGE (AUTONOMOUS) POLLACHI

END-OF-SEMESTER EXAMINATIONS: DECEMBER-2022

B. Sc-ZOOLOGY **MAXIMUM MARKS: 70**

V SEMESTER **TIME: 3 HOURS**

PART III

BIOSTATISTICS AND BIOPHYSICS

SECTION – A (10 X1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS

MULTIPLE CHOICE QUESTIONS (K1)

1. Data is generally classified into_____types
   a. Two types b. Three types c. One type d. Many types

2. Standard error is represented by the formula_____
   a. σ b. σ/√n c. εx d. εf̣X

3. The relative measure of dispersion is _____
   a. Standard deviation b. Mean
   c. Co-efficient of variation d. Standard error

4. The first law of thermodynamics states that energy cannot be _____
   a. created only b. destroyed only
   c. converted d. created and destroyed

5. Which part of the compound microscope helps in gathering and focusing light rays on the specimen to be viewed?
   a. Eyepiece lens b. Objective lens
   c Condenser lens d Magnifying lens

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES (K2)

6. Define Biostatistics.

7. Differentiate between discrete and continuous series.

8. What is students t- test?

9. State second law of thermodynamics.

10. Write the full form of SEM and TEM.

ETHICAL PAPER

(CONTD….2)

SECTION – B (5 X 4 = 20 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.

11. a) Calculate the arithmetic mean for the daily wages from the following data.

Wages in Rs	5-10	10-15	15-20	20-25	25-30	30-35
Number of workers	5	10	20	20	15	10

(OR)

b) What is median? Find the median weight of fishes from the following data.

Serial No	1	2	3	4	5
Weight in grams	12	15	11	19	16

12. a) Define standard deviation. Calculate standard deviation for the given data.

Class interval	0-10	10-20	20-30	30-40	40-50
Frequency	3	7	5	3	6

(OR)

b) What is correlation. Explain the types of correlation.

13. a) List the importance of Chi square test.

(OR)

b) What are the uses of ANOVA.

14. a) Sketch the scope of biophysics.

(OR)

b) Classify Bioluminesce and explain its significance

15. a) Construct a compound microscope.

(OR)

b) Write about thin layer chromatography.

SECTION - C (4 X 10 = 40 MARKS)

ANSWER ANY FOUR OUT OF SIX QUESTIONS
(16th QUESTION IS COMPULSORY AND ANSWER ANY THREE QUESTIONS

16. Discuss about the application of electron microscope.
17. Write an essay on diagrammatic representation of data.
18. Narrate the types and methods adopted for regression analysis.
19. Explain in detail ANOVA
20. State & Interpret the Law of thermodynamics.
21. Illustrate the principal applications and uses of PAGE.