

D 30227

(Pages : 3)

Name.....

Reg. No.....

**FIFTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2022**

Zoology

ZOL 5B 09—GENERAL METHODOLOGY IN SCIENCE, BIostatISTICS AND
INFORMATICS

(2017—2018 Admissions)

Time : Three Hours

Maximum : 80 Marks

Part AI. One Word Questions. Answer *all* questions. Each carries 1 mark :

- 1 The repetition of experiment under identical conditions is known as _____.
- 2 _____ is the recorded value of an experiment.
- 3 Falsification is a modified approach of positivism introduced by _____.
- 4 _____ is statistical table where the frequencies of preceding classes are added.
- 5 A well defined group of individuals who are being studied is called _____.
- 6 The unmeasurable quantities of a population is called _____.
- 7 The number of times, the attribute or character has appeared in the data is called _____.
- 8 Illegal copying of software is called _____.
- 9 Expand IPR.
- 10 _____ is an example for a Learning Management System.

(10 × 1 = 10 marks)

Part B

II. Short Answer Questions. Answer any ten questions. Each carries 2 marks :

- 11 What is Pilot study ? Mention its importance.
- 12 Define 'knowledge'. Write note on its types.

Turn over

- 13 Differentiate between inductive and deductive reasoning.
- 14 Name the statistical tools used in interpretation of data.
- 15 What is sample ? Mention sample size.
- 16 Distinguish between histogram and bar diagram.
- 17 What is INFLIBNET ? Comment on its use.
- 18 Write any four guidelines for the proper usage of computers.
- 19 What is Unicode ?
- 20 What you mean by a Wi-Fi connection ?
- 21 Write a short note on digital divide.
- 22 The following data shows the length (in mm) of 6 leaves obtained from a mango tree. Calculate the mean length :

Length in mm	:	65	71	73	75	81	100
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(10 × 2 = 20 marks)

Part C

III. Paragraph Questions. Answer any five questions. Each carries 6 marks :

- 23 Explain the methods of testing a hypothesis
- 24 Write a note on the laws in science
- 25 Comment on the importance of models in science
- 26 Explain the methods of sampling
- 27 Briefly explain the graphic representation of data
- 28 Explain artificial intelligence. Mention its applications
- 29 Explain free software movements with examples
- 30 Define Mean, Median and Mode.

The following distribution shows marks of 90 students in a class. Calculate the modal class and mode :

Marks	:	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60
No. of students	:	6	8	10	18	25	12	6	5

(5 × 6 = 30 marks)

Part D

IV. Essay Questions. Answer any *two* questions. Each carries 10 marks :

- 31 Write an essay on experimentation in science.
- 32 Write an essay on the analysis and interpretation of data in biostatistics.
- 33 Briefly explain the role of IT in education. Add notes on the opportunities and threats in IT industry.
- 34 Explain Internet as a knowledge repository. Add notes on open access initiatives.

(2 × 10 = 20 marks)