



Reg. No. :

Name :

V Semester B.Sc. Degree (CBCSS – OBE – Regular/Supplementary/Improvement) Examination, November 2022 (2019 Admission Onwards) CORE COURSE IN ZOOLOGY 5B 05 ZLG : Evolution, Ethology and Research Methodology

Time : 3 Hours

Max. Marks : 40

Instruction : Give illustrations and figure wherever necessary.

SECTION – A : Evolution and Ethology

- I. Essay questions (Each question carries 8 marks). Answer any 1. 1) Describe the types of learning with examples. 2) Explain Darwin's theory of natural selection. Add a note on its criticisms. II. Short essay (Each question carries 4 marks). Answer any 1. 3) Describe the types of pheromones. 4) Explain various intraspecific categories. III. Short answer questions. (Each question carries 2 marks). Answer any 3. 5) What is convergent evolution ? 6) Comment on isolation. 7) Distinguish between innate and learned behaviour. 8) What is molecular clock ?

P.T.O.



- IV. Multiple Choice Questions (Each question carries 0.5 marks). Answer all. 9) Variability of individuals within a population or species is a) Macroevolution b) Microevolution c) Megaevolution d) Hybrid breakdown 10) Mutations that does not affect the phenotype of an organism is explained by a) Germplasm theory b) Lamarckism c) Neutral theory d) Darwin's theory 11) Origin of new species with profound changes occurring in rapid bursts is a) Punctuated equilibrium b) Geographical isolation c) Gradualism d) Co-evolution 12) Web of aquatic birds is an example of a) 'use theory' b) 'disuse theory' c) neodarwinism d) isolation

SECTION – B : Research Methodology

- I. Essay questions (Each question carries 8 marks). Answer any 1. 13) Describe different methods of graphic and diagrammatic representation of data. 14) Explain different steps in a research process. II. Short Essay (Each question carries 4 marks). Answer any 1. 15) Explain biodiversity indices. 16) Describe the structure of a scientific paper. III. Short answer questions (Each question carries 2 marks). Answer any 3. 17) What is arithmetic mean ? 18) What is pseudoscience ? 19) Comment on SPSS. 20) What is meant by plagiarism ?



- IV. Multiple Choice Questions (Each question carries 0.5 marks). Answer all. 21) Sort of analysis in which specific observations are used to construct general scientific principles is a) Deductive approach b) Pseudoscience c) Abductive approach d) Inductive approach 22) Diagrammatic representation that make use of sectors in a circle to represent the data is a) Frequency polygon b) Histogram c) Pie chart d) Frequency curve 23) Square root of the average of the squared deviations of the observations from the arithmetic mean is called a) Standard deviation b) Mean deviation c) Range d) Regression 24) A small-scale preliminary study to investigate the feasibility of main study is a) Case study b) Test of significance c) Pilot study d) Testing of hypothesis