

**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034****M.Sc. DEGREE EXAMINATION – ZOOLOGY****SECOND SEMESTER – APRIL 2023****PZO2MC02 – RESEARCH METHODOLOGY AND BIostatISTICS**

Date: 04-05-2023

Dept. No. 

Max. : 100 Marks

Time: 01:00 PM - 04:00 PM

**SECTION A – K1 (CO1)****Answer ALL the questions****(5 x 1 = 5)****1. Definitions**

a) Extraneous variable

b) h-index

c) Observer bias

d) Type II error

e) P-value

**SECTION A – K2 (CO1)****Answer ALL the questions****(5 x 1 = 5)****2. Fill in the blanks**

a) Empirical research is also called as.....

b) In .....scale the variable can accommodate absolute zero.

c) .....is considered as a top down research approach.

d) If there is no statistical relationship between the two variables it is called.....

e) The .....represents relative frequency of continuous data.

**SECTION B – K3 (CO2)****Answer any THREE of the following****(3 x 10 = 30)**

3. Illustrate the important features of good research design.

4. Classify and explain the methods of primary data collection.

5. Enumerate the various types of hypothesis.

6. Explain types of correlation coefficient based on correlation value.

7. Demonstrate the importance of paired and unpaired t-test.

**SECTION C – K4 (CO3)****Answer any TWO of the following****(2 x 12.5 = 25)**

8. Distinguish between pie charts, bar diagram, scatter plots, histogram and pictogram.

9. Compile the data processing cycle, types and methods.

10. Explain qualitative and quantitative data and add a note on its type.

11. Elaborate the steps involved in drafting a research report.

**SECTION D – K5 (CO4)****Answer any ONE of the following****(1 x 15 = 15)**

12. Summarize the salient features, sources and structure of writing a literature review.

13. Evaluate sample design and add a note on sampling methods.

**SECTION E – K6 (CO5)****Answer any ONE of the following****(1 x 20 = 20)**

14. Compile the concepts and steps involved in formulation of research problem.

15. Write notes on a) Plagiarism. b) ANOVA

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