



Avinashilingam Institute for Home Science and Higher Education for Women

Deemed to be University Estd. u/s 3 of UGC Act 1956, Category 'A' by MHRD (now MoE)

Re-accredited with 'A++' Grade by NAAC. CGPA 3.65/4, Category I by UGC

Coimbatore - 641 043, Tamil Nadu, India

Continuous Internal Assessment – II, April 2025 IV Semester

Class : II PG
Major : Zoology

Time: 2 Hours
Max. Marks: 60

23MZOC21 Biostatistics and Thesis Writing

Course Outcomes:

- CO1: Demonstrate the ability to analyze data by interpreting a statistical model.
- CO2: Knowledge on implementation of hypothesis in validating a model.
- CO3: Understand derivation and distribution of linear and quadratic data.
- CO4: Utilize the formulae and test to substantiate the research output.
- CO5: Summarize data and draw valid inference.

Part- A

Choose the correct answer

6x1=6

1. _____ is a type of non-probability sampling CO1K1
a. Purposive sampling b. Quota sampling
c. Stratified sampling d. Accidental sampling

2. The number of trials in a binomial distribution is CO1K1
a. infinite b. fixed c. variable d. undefined

3. When the p-value is smaller than significance level, then the hypothesis CO1K2
a. Fail to reject null b. accept null c. reject null d. increase sample size

4. The Kruskal-Wallis test is a _____ CO1K1
a. Parametric test b. Non-parametric test c. Z-test d. Chi-square test

5. Key component of a research thesis is _____ CO1K2
a. plagiarism tool b. review of literature c. chapter outline d. data analysis

6. The referencing system that uses alphabetical and chronological order is ____ CO1K1
a. APA b. Harvard c. MLA d. Chicago

Part - B
Answer all questions
Each answer should not exceed 400 words or two pages

3x6 =18

- 7.a Differentiate between purposive and quota sampling
(or) CO2K2
- 7.b Comment on the significance of Poisson distribution in real-world applications CO2K2
- 8.a A sample of 10 students scored the following marks in a test: 55, 60, 65, 70, 75, 80, 85, 90, 95, 100. Test the hypothesis that the mean score is 5 using Student's t-test.
(or) CO2K2
- 8.b Enumerate the steps involved in Chi-square test CO2K2
- 9.a Outline the essential elements of a well-structured research design CO2K2
(or)
- 9.b Examine the different reference systems used in report writing CO2K2

Part C
Answer any one question
Each answer should not exceed 800 words or four pages

3x12=36

- 10.a Summarize the different types of non-probability samples. CO3K3
(or)
- 10.b Explicate the importance of theoretical distributions in sampling. CO3K3
- 11.a Sketch the different types of errors in hypothesis testing. CO3K3
(or)
- 11.b Elucidate the importance of distribution-free tests with its advantages. CO3K3
- 12.a Elaborate the essential components of a research thesis. CO3K3
(or)
- 12.b Highlight the importance of ethical considerations and plagiarism checks in academic research. CO3K3