

KAMARAJ COLLEGE (Autonomous)

Accredited with A+ Grade by NAAC

(Affiliated to Manonmaniam Sundaranar University, Tirunelveli)

THOOTHUKUDI – 628 003

(6 Pages)

Reg. No:

Question. Code No : 25E03505

Sub Code : 24PEB025

PG Degree - End Semester Examinations, April 2025

Second Semester

M.Sc. BOTANY

Elective - Biostatistics

(For those who joined in July 2024 onwards)

Time : 3 Hours

Maximum : 75 Marks

PART - A (10 × 1 = 10 Marks)

Answer ALL Questions

Choose the correct answer :

1. Questionnaire method is used in collection of:

density functions is applicable to discrete Random variables?

- (a) Raleigh distribution (b) Poisson distribution
(c) Exponential distribution (d) Gaussian
distribution.

7. Branch of statistics that with testing of hypothesis is called

- (a) Description (b) Comparative
(c) Inferential (d) All the above

8. Chi square test is used for testing a

- (a) Population (b) Sample
(c) Hypothesis (d) All the above

9. The coefficient of correlation

- (a) Is the square of the coefficient of determination
(b) Is the same as r-square
(c) Is the square root of the coefficient of determination
(d) Can never be negative

10. Randomized block uses _____ principles of design of experiment.

- (a) One (b) Two

(c) Three

(d) Four

PART - B (5X5=25 Marks)

Answer ALL Questions choosing either (a) or (b).

Answer should not exceed 250 words.

11. (a) Enlist the importance of biostatistics.

(OR)

(b) Differentiate between primary and secondary data.

12. (a) Write short notes on measures of dispersion. Add notes on their merits and demerits.

(OR)

(b) Write a brief account on standard error.

13. (a) Write short notes on merits and utility of probability.

(OR)

(b) Explain the important characteristics of normal probability distribution.

14. (a) Write notes on null hypothesis and alternative hypothesis.

(OR)

(b) Give an account on chi-square test and its advantage.

15. (a) Define correlation. Explain the various types of correlations.

(OR)

(b) Summarize the randomized block design.

PART - C (5 X 8 = 40 Marks)

Answer ALL Questions choosing either (a) or (b).

Answer should not exceed 600 words.

16. (a) Write in detail about the various sampling methods studied by you.

(OR)

(b) Give a detailed account on tabulation of data.

17. (a) What is standard deviation? Write the steps and its significances.

(OR)

(b) Write a note on range. Give a brief account on its merits and limitations.

18. (a) Summarize the binomial and Poisson probability distribution.

(OR)

(b) Describe addition and multiplication rules of probability.

19. (a) Write essay on student test 't', types and its working procedure.

(OR)

(b) Define ANOVA. Give the assumptions of ANOVA.

20. (a) What are simple linear and multiple regressions? Write the equation for simple linear and multiple regression models.

(OR)

(b) Write an essay on Split Plot Design explaining its main features, layout and uses.