

**BIOSTATISTICS
(COMMON FOR ALL SPECIALITIES)**

Time: 3 Hours.

Max Marks: 100

Note: Answer all questions.

Give Diagrammatic representation wherever necessary.

Analytical Based Structured Question (ABQ)

1 X 20 = 20

1. Discuss Hypothesis testing in biostatistics. How does it aid in medical research decision making?

Short Answer Questions:

8 X 5 = 40

2. Define Standard deviation and its significance.
3. Explain Normal distribution and its importance in statistics.
4. Describe Non-probability sampling methods.
5. What is the significance of the P-value in hypothesis testing?
6. Explain Spearman's rank correlation and its application.
7. What is Linear Regression? How is it used in research?
8. What is the difference between Null and Alternate hypothesis.
9. Discuss the importance of demographic measures in biostatistics.

Long Answer Questions:

4 X 10 = 40

10. Explain parametric tests with suitable examples.
11. Describe non-parametric tests and explain the Mann-Whitney U test.
12. Discuss the different types of ANOVA and their applications.
13. How does biostatistics contribute to Ayurveda research and practice?
