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TELANGANA STATE, WARANGAL – 506 002
MPH FINAL YEAR DEGREE EXAMINATIONS: NOVEMBER, 2024

BIOSTATISTICS AND DATA MANAGEMENT

PAPER – I

Time: 3 Hours.

Max Marks: 70

Note: Answer all questions.

Give Diagrammatic representation wherever necessary.

Write an essay on the following:

2 X 10 = 20

1. Formulate a logistic regression model. How is it different and similar from ordinary linear regression?
2. What is the role of statistics in clinical research? Define the different phases of clinical trials.

Write a short note on the following:

6 X 5 = 30

3. What are the main differences between cluster sampling and stratified sampling?
4. What is the difference between coefficient of determination, and coefficient of correlation?
5. Where do you use survival analysis. What is a survival curve?
6. What do you understand by analysis of variance (ANOVA) and when it is used?
7. How can you perform a good systematic review or Meta-analysis?
8. What do you understand the term odds ratio and relative risk?

Write briefly on the following:

2 X 10 = 20

9. Define scatter plot.
10. What is Poisson regression model?
11. What do you mean by dummy variable?
12. What is independent variable?
13. Describe log-rank test.
14. Discuss the Model selection criteria.
15. What is confidence interval?
16. Define longitudinal data
17. What is bias?
18. What is blinding?
