

**KALOJI NARAYANA RAO UNIVERSITY OF HEALTH SCIENCES
TELANGANA STATE, WARANGAL – 506 002
MPH FINAL YEAR DEGREE EXAMINATIONS: MARCH, 2023**

**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. What is a generalized regression model? Differentiate between linear regression and generalized regression model.
2. What do you mean by systematic review? Describe the steps involve to perform systematic review.

Write a short note on the following:

6 X 5 = 30

3. What are the assumptions of linear regression? Define in brief?
4. What is the difference probability and non-probability sampling?
5. What is "blinding" and what is its purpose?
6. What do you mean by right, left and interval censoring in a data set?
7. What is the difference between time series analysis and longitudinal data analysis?
8. What is forest plot and funnel chart in Meta-analysis?

Write briefly on the following:

10 X 2 = 20

9. What is adjusted R^2 ?
10. How do you check the normality assumption?
11. What is instantaneous failure rate?
12. Define stepwise regression model.
13. What do you mean by P-value?
14. What is meant by a "run-in period" for a clinical trial?
15. What is coefficient of determination?
16. Describe Stratified random sampling.
17. Define F-test.
18. What is the use of link function?
