THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 1023]   OCTOBER 2023   Sub. Code: 2866

M.Sc. BIOSTATISTICS
SECOND YEAR (From 2011-2012 onwards)
PAPER II – APPLIED MULTIVARIATE ANALYSIS AND TIME SERIES ANALYSIS

Q.P. Code: 282866

Time: Three hours   Answer ALL Questions   Maximum: 100 Marks

I. Elaborate on: (2 x 20 =40)

1. Explain principal component analysis.

2. Discriminant analysis and its application to epidemiology.

II. Write notes on: (10 x 6 =60)

1. Canonical correlation.
2. Bayes' rule in discriminant analysis.
3. Distinguish between collinearity and multicollinearity.
4. Goodness of fit in factor analysis.
5. Distinguish between ARMA and ARIMA.
6. Stationary process in time series.
7. Objectives of time series analysis.
8. Random walk process.
9. Explain how moving average process can be used in epidemiology.
10. What is multi-collinearity?

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