

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

[AHS 0122]

**JANUARY 2022
(OCTOBER 2021 EXAM SESSION)**

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. Elaborateon:

(2 x 20 =40)

1. Explain the concept of discriminant analyses, regression analyses and logistic regression analysis
2. Discuss the implication of Time series analysis with specific examples in epidemiological research.

II. Writenoteson:

(10 x 6 =60)

1. Discuss about factor analysis
2. What is multi-collinearity and explain the causes?
3. What is Recursive Path Analysis? Explain with an Example.
4. Explain the use of Autocorrelation function (ACF) and Partial Autocorrelation function (PACF) plots in determining the parameters of AR and MA models.
5. Write a short note on Quadratic Classification Rule.
6. Multiple linear regression analysis.
7. What is Dendrogram graph? How will you infer?
8. Canonical correlation
9. Objectives of time series analysis.
10. Random walk process.
