

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

**[AHS 0921]**

**SEPTEMBER 2021  
(MAY 2021 EXAM SESSION)**

**Sub. Code: 3001**

**M.Sc. EPIDEMIOLOGY  
FIRST YEAR (From 2011-2012 onwards)  
PAPER I – PRINCIPLES OF EPIDEMIOLOGY AND BIostatISTICS  
*Q.P. Code : 313001***

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate notes on:**

**(2 x 20 = 40)**

1. Define Epidemiology. Explain the three components of epidemiology with suitable examples and the importance of each of these components in reducing the impact of COVID pandemic.
2. Explain likelihood ratio with ELISA test for HIV as an example and the interpretation of a positive result and negative result of ELISA for HIV?

**II. Write Short Notes on:**

**(10x6 = 60)**

1. Coefficient of variation.
2. ROC curve.
3. Measurement of outcome in a case control study.
4. Null hypothesis.
5. Epidemic curve.
6. Institutional Ethics Committee.
7. Box and Whisker plot.
8. Skewness and Kurtosis in Gaussian curve.
9. 't' test.
10. Ecological fallacy.

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