

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

[AHS 0921]

SEPTEMBER 2021  
(MAY 2021 EXAM SESSION)

Sub. Code: 5022

MASTER OF HOSPITAL ADMINISTRATION (AHS)  
FIRST YEAR (Admitted in 2017-2018)  
PAPER II – BIO-STATISTICS AND OPERATIONS RESEARCH  
Q.P. Code : 435022

Time : Three hours

Answer ALL Questions

Maximum : 100 Marks

**I. Elaborate on:**

(2 x 20 = 40)

1. Parametric tests and Non-parametric tests.
2. Solve the following L.P.P. by simplex method

Maximize  $Z=5x+8y$

Subject to the constrains  $3x+2y\leq 36$

$x+2y\leq 20$

$3x+4y\leq 42$

$x\geq 0, y\geq 0$

**II. Write notes on:**

(10 x 6 = 60)

1. Classification data.
2. Different scales of measurement.
3. Diagrammatic representation of data.
4. Arithmetic mean, Geometric mean and Harmonic mean with merits and demerits.
5. Find median deviation and its coefficient of the following series:  
Size : 5 6 7 8 9 10  
Frequency : 8 12 18 8 3 1
6. Correlation and regression.
7. Type I error and Type II error, level of significance and power of the test.
8. Formulation of Models in operations research.
9. Simplex method of solving maximization problem in Linear programming problem.
10. Hungarian Algorithm of solving assignment Problem.

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