

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

[AHS 0921]

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

**Sub. Code: 2303**

**M.Sc. NUCLEAR MEDICINE TECHNOLOGY  
FIRST YEAR (From 2019-2020 onwards)  
PAPER III – MATHEMATICS AND STATISTIC  
*Q.P. Code : 282303***

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

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

1. Explain in detail about parametric and non-parametric test with an example and write its application.
2. a) Fourier Transform and its application in nuclear medicine  
b) What are most commonly used discrete functions in nuclear medicine?

**II. Write Short Notes on: (10x6 = 60)**

1. Application of statistics in medical field.
2. Write a short note on normal distribution with example.
3. Explain analysis of variance.
4. What are the graphical representation of a complex number?
5. Methods of attenuation correction.
6. Explain confidence intervals with example.
7. What is coordinate system?
8. Write a short note on Laplace transform and its application in nuclear medicine
9. Discuss about Null hypothesis, alternative hypothesis and level of significance.
10. Explain continuous functions in nuclear medicine.

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