

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

[MD 0524]

MAY 2024

Sub. Code: 4017

M.D. DEGREE EXAMINATION

BRANCH VI – PHARMACOLOGY

**PAPER I – GENERAL PHARMACOLOGY,
EXPERIMENTAL PHARMACOLOGY AND BIOASSAY**

Q.P. Code: 204017

Time : Three Hours

Maximum : 100 Marks

I. Essay: (2 x 15 = 30)

1. a) Describe the factors modifying bioavailability, explain the application in pharmacotherapeutics with examples.
b) Brief on calculation of Maximum Recommended Starting Dose in Humans using NOAEL.
2. Animal models for screening of Anxiolytic drugs.

II. Short notes: (10 x 5 = 50)

1. Reverse pharmacology in India and hurdles.
2. Types of Pharmacoeconomic analysis and its applications in policy making.
3. Preclinical safety data and toxicity studies.
4. Kinetics of elimination with relevant diagram and clinical application.
5. Compare new drug, off label use and repurposed drug.
6. Quantitative applications of Mass spectrometry.
7. Medication error rates and prevention strategies.
8. Compare Parametric and Non parametric tests.
9. Explain the different types of prodrugs with examples.
10. Requirements for Housing, Transport and Disposal of Laboratory animals.

III. Reasoning Out: (4 x 5 = 20)

1. P-Drug versus P-Treatment.
2. Explain Orphan Drug and Orphan Vaccine with example.
3. Biochemical assay versus cell based assay.
4. Paired versus Unpaired t-test.
