

M.D. DEGREE EXAMINATION
BRANCH VI – PHARMACOLOGY

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

Q.P. Code: 202022

Time: Three Hours

Maximum: 100 Marks

I. Essay: **(2 x 15 = 30)**

1. a. Describe in detail about the structural and functional families of physiological receptors
- b. Explain the role of second messenger systems in signaling pathways
2. Describe the *in vivo* and *in vitro* methods employed in the screening of antifertility agents

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

1. Randomization
2. Targeted drug delivery system
3. Drug utilization studies
4. Pharmacoinformatics
5. Principles of bioassay
6. Cell line studies
7. *In vivo* models for preclinical screening of antidepressant agents
8. Types of reporting in pharmacovigilance
9. Elimination kinetics
10. Advantages and disadvantages of Fixed Dose Combination of drugs

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

1. Importance of Drug Promotional Literature
2. Guinea pig as an experimental animal
3. Significance of parametric tests in research
4. HPLC as an analytical instrument