

**PHARMACOLOGY****PAPER-III**Time: 3 hours  
Max. Marks:100

PHARM/J/19/34/III

**Important Instructions:**

- Attempt all questions in order.
- Each question carries 10 marks.
- Read the question carefully and answer to the point neatly and legibly.
- Do not leave any blank pages between two answers.
- Indicate the question number correctly for the answer in the margin space.
- Answer all the parts of a single question together.
- Start the answer to a question on a fresh page or leave adequate space between two answers.
- Draw table/diagrams/flowcharts wherever appropriate.

**Write short notes on:**

- |   |         |
|---|---------|
| 1. Discuss the applications of immunology for assay of drugs with suitable examples.                  | 10      |
| 2. Transgenic animals in pharmacological studies.   | 10      |
| 3. Describe various methods for evaluation of drugs potentially useful for treatment of peptic ulcer. | 10      |
| 4. a) Probit analysis.<br>b) Kaplan Meier survival analysis.  | 5+5     |
| 5. Principles of bioassay and its application.  | 7+3     |
| 6. Discuss briefly advantages and limitations of animal testing of drugs.                             | 5+5     |
| 7. Calculation of human equivalent dose from animal studies.  | 10      |
| 8. Role of artificial intelligence in research with examples.   | 10      |
| 9. What is Metaanalysis? Discuss its usefulness and limitations in research.                          | 4+(3+3) |
| 10. Discuss the experimental evaluation methods for a potential antidepressant drug.                  | 10      |

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