

PHARMACOLOGY

PAPER-I

Time: 3 hours
Max. Marks:100

PHARM/J/19/34/I

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:

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| 1. | a) Nonlinear pharmacokinetics.
b) Volume of distribution. | 5+5 |
| 2. | Define essential medicines. Discuss the criteria for selection of essential medicines with special emphasis on challenges faced in India. | 3+(4+3) |
| 3. | Define plasma half-life of a drug. Discuss factors which modify half-life of a drug. Discuss clinical implications of half-life. | 2+4+4 |
| 4. | Determination of drug levels in body fluids. | 10 |
| 5. | What is pharmacogenomics? Discuss its impact on pharmacotherapeutics. | 4+6 |
| 6. | a) Voltage gated ion channels.
b) Autoreceptors. | 5+5 |
| 7. | Discuss briefly prescribing consideration in physiological and pathological conditions with suitable examples. | 10 |
| 8. | a) Pharmacoeconomics and its role in Indian health care system.
b) Counterfeit medication and their health risks. | 5+5 |
| 9. | Functions and clinical significance of P-glycoproteins. | 5+5 |
| 10. | a) Herb-drug interactions.
b) Biased agonism with examples. | 5+5 |
