PHARMACOLOGY

PAPER - I

PHARM/D/13/34/I

Time : 3 hours
Max. Marks : 100

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.*

1. Define the term Bioavailability and Bioequivalence. Describe the factors that would influence these. Discuss their clinical relevance giving suitable examples. 3+3+4

2. What do you understand by 'genetic polymorphism'? Discuss briefly at least two recognized genetic varieties of phase I drug metabolism polymorphism giving suitable examples. 4+6

3. Describe the terms plasma half life & biological half life of drugs. Discuss briefly the factors that determine the time course of a drug in the body. Give suitable examples to illustrate your answers. 5+5

4. Define pharmacoepidemiology. Discuss the various methods required to conduct Pharmacoepidemiological study. Enumerate the usefulness of the outcomes of such studies. 3+3+4

5. Enumerate the various targets for drug action. Describe them by quoting suitable examples. 2+8

6. Enumerate the screening methods to evaluate anxiolytic potential of a drug. Describe any one method in detail. 4+6

7. Explain the following terms giving suitable examples: - 3+3+4
   a) Fiducial limits of confidence
   b) Attributable risk
   c) Type I & Type II errors in Biostatistics

8. What do you understand by pD_2 & pA_2 values? How do they differ from each other? What is the relevance of their calculation? 4+3+3

9. Enumerate the screening methods for evaluation of antihistaminic potential of a drug. Describe one of the above method in detail which may be used for screening of drugs useful in the treatment of acute analphylaxis. 4+6

10. Discuss the usefulness and limitation for the use of animals as experimental models for studying drug effects. Explain in details the experimental modes of "Condition Avoidance Response". Discuss the significance and usefulness of "Condition Avoidance Response". 3+4+3

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