

[Time: 3 Hours]

[Max. Marks: 75]

**Pharmacological and Toxicological Screening Methods-I****Q.P. CODE: 5135**

Your answers should be specific to the questions asked.

Draw neat, labeled diagrams wherever necessary.

**LONG ESSAY (Answer any Three)****3 X 10 = 30 Marks**

1. Enumerate various preclinical models to evaluate anti-anxiety activity of drugs. Explain any two screening models.
2. Enumerate screening methods for antipsychotic drugs and explain pole climbing avoidance test in rats
3. Write a note on chemical mediators of inflammation. Explain one *in vitro* and one *in-vivo* method to screen an anti-inflammatory agent.
4. What are the methods to screen antidiabetic agents? Discuss the euglycaemic clamp technique and method to evaluate alpha glucosidase inhibitory activity.

**SHORT ESSAY (Answer any Nine)****9 X 5 = 45 Marks**

5. What are the pharmacological applications of transgenic animals?
6. Write a note on preclinical screening methods for drugs used in Alzheimers disease.
7. Explain one model each from *invivo* and *invitro* models to evaluate antidiarrhoeal activity of a drug.
8. Explain one model each from *in vivo* and *in vitro* models to evaluate anti-asthmatic activity of a drug.
9. Explain the stress induced ulcer model and pylorus ligation method to evaluate an anti ulcer agent.
10. Enumerate various preclinical models to evaluate antihypertensive activity of a drug. Explain any one model.
11. Ennumerate the models for screening of antianginal activity and explain the legendroff technique for isolated mammalian heart.
12. What is the role of lipoprotein in atherosclerosis? Explain the high-fat diet model for screening of antiatherosclerotic agents.
13. Write a note on alternatives to animal experiments in pharmacology.
14. Explain the general principles of immunoassays.

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