

[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. Name the various methods to screen a compound for antiparkinsonism activity and explain any two methods in detail.
2. Name the methods to screen an agent for antiepileptic activity. Explain any two models.
3. Discuss one *in vivo* and one *in vitro* method each for evaluating a drug for central and peripheral analgesic activity.
4. What are the screening methods for antiarrhythmic activity of a drug and discuss any one invitro and one invivo method.

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

5. Discuss various methods to produce transgenic animals.
6. Discuss two *in vivo* methods to screen an agent for treatment of epilepsy.
7. Enumerate the any two *in vivo* screening methods for evaluation of anti-inflammatory activity of a drug.
8. Discuss the any two methods to evaluate antiemetic agents.
9. List out the various screening methods for antiulcer activity. Explain any one method.
10. Explain the isoprenaline induced myocardial necrosis model for screening of drugs in the treatment of myocardial infarction.
11. Write a note on MTT assay and tumor xenograft model for screening anticancer activity.
12. List the methods to screen antidiabetic agents. Discuss the method to evaluate alpha glucosidase inhibitory activity.
13. Explain two methods to evaluate an agent for immunosuppressant activity.
14. Explain the limitations of animal experiments in drug discovery.

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