

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)

CLASS: M.PHARM.
BRANCH: PHARMACOLOGY

SEMESTER: I
SESSION: MO2022

SUBJECT: MPL103T PHARMACOLOGICAL AND TOXICOLOGICAL SCREENING METHODS I

TIME: 3.00 Hours

FULL MARK: 75

INSTRUCTIONS:

1. Answer any five out of the seven questions
 2. The missing data, if any, may be assumed suitably
 3. Before attempting the question paper, be sure that you have got the correct question paper.
 4. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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- 1a. Differentiate between Pyrexia and algesia. Elaborate on a method used to screen antipyretic effect in animals [7]
- 1b. Name some convulsants and anticonvulsants. Design an experiment to screen a compound for anticonvulsant activity [8]
- 2a. What are diabetogens. Name four diabetogens used for animal experimentation. Differentiate between MOA of two prototype diabetogens used for screening purposes [7]
- 2b. Design a suitable experiment to screen for antidiarrheal activity [8]
- 3a. Design a simple method to evaluate surface anaesthesia [7]
- 3b. Differentiate between the Chick comb method and the capon comb method Elaborate on the Capon comb method used for screening androgenic activity. [8]
- 4a. What are Phlogistic agents. How will you screen a compound for acute inflammatory condition. [7]
- 4b. What is Ulcer Index? Give the formula used to calculate ulcer index. Discuss a method used to screen a compound for stress induced ulceration [8]
- 5a. Explain the limitations of animal experimentations in pre-clinical research. [7]
- 5b. Discuss the principles of bioassay. Briefly explain different methods of bioassay. [8]
- 6a. Discuss application of transgenic animals in modern world. [7]
- 6b. Briefly explain the method of transportation of laboratory animals. [8]
- 7a. Write note on breeding of laboratory animals. [7]
- 7b. Describe the radioimmunoassay for the determination of insulin. [8]

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