

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

CLASS: M.PHARM  
BRANCH: PHARMACY

SEMESTER : II  
SESSION : SP/19

SUBJECT: MPL202T PHARMACOLOGICAL AND TOXICOLOGICAL SCREENING METHODS II  
TIME: 3 HOURS FULL MARKS: 75

**INSTRUCTIONS:**

1. The question paper contains 7 questions each of 15 marks and total 105 marks.
  2. Candidates may attempt any 5 questions maximum of 75 marks.
  3. The missing data, if any, may be assumed suitably.
  4. Before attempting the question paper, be sure that you have got the correct question paper.
  5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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- Q.1(a) Define xenobiotics. Enlist the fields of toxicology. Enumerate the factors influencing toxicity with special mention of chemical interactions. [7]
- Q.1(b) What is NOAEL and LOAEL. What is the importance of dose response relationship in toxicokinetics. Explain with suitable illustrations. [8]
- Q.2(a) Summarize the initial considerations and preparations for the in vivo acute eye irritation studies as per OECD. [7]
- Q.2(b) Design the testing and evaluation strategy for acute dermal irritation and represent it schematically. [8]
- Q.3(a) Differentiate between OECD-420 and OECD-423 guidelines for Acute oral toxicity. [7]
- Q.3(b) Write a detailed description about OECD-425 guidelines for acute oral toxicity [8]
- Q.4(a) Classify and explain types of IND. [7]
- Q.4(b) Write in detail about IND applications for clinical Investigations. [8]
- Q.5(a) Discuss about the selection, housing and feeding, preparation and dosing of laboratory animal as per the general OECD guidelines. [7]
- Q.5(b) Write a detailed description about OECD-452 guidelines for chronic toxicity. [8]
- Q.6(a) Write brief reports of the drugs that have adverse effects on Premating to conception and Implantation of reproductive cycle of male and female. [7]
- Q.6(b) Elaborate on reproductive toxicity study design. Describe the fertility and early embryonic development study designs. [8]
- Q.7(a) Define safety pharmacology. Enumerate all the established and emerging parameters to be evaluated in safety pharmacology study design. [7]
- Q.7(b) Differentiate between FOB and Irwin's test. Write an explanatory note on hERG assay. [8]

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