

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

CLASS: M.PHARM.

BRANCH: PHARMACOLOGY

SUBJECT: MPL202T PHARMACOLOGY & TOXICOLOGICAL SCREENING METHODS - II

TIME: 3.00 Hours

SEMESTER: II

SESSION: SP24

FULL MARK: 75

INSTRUCTIONS:

1. The missing data, if any, may be assumed suitably.
 2. Before attempting the question paper, be sure that you have got the correct question paper.
 3. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
 5. Answer any five questions.
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|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------|
| 1a. | Define toxicology. Justify the statement “....there is none that is not a poison”. Enumerate the factors influencing toxicity with suitable examples wherever applicable. | [7] | CO1 |
| 1b. | Explain the types of interactions occurring amongst xenobiotics to give altered effects. | [8] | CO1 |
| 2a. | What is Haber’s law and what is its importance in toxic dose calculation? Explain NOAEL, LOAEL, margin of safety and safety factors. | [7] | CO1 |
| 2b. | Elaborate on the toxicokinetic models used to describe the uptake and disposition of xenobiotics. | [8] | CO5 |
| 3a. | Define safety pharmacology. Enumerate the general considerations to design safety pharmacology studies. Illustrate the established and emerging parameters associated with safety pharmacology studies. | [7] | CO1 |
| 3b. | Elaborate on the core battery tests and follow-up studies for safety pharmacology. Write explanatory notes on the hERG assay. | [8] | CO1
CO5 |
| 4a. | Elucidate the method of sighting study in acute fixed-dose oral toxicity study as per OECD guidelines. | [7] | CO2 |
| 4b. | Write notes on acute dermal toxicity study as per OECD guidelines. | [8] | CO2 |
| 5a. | Define IND and discuss its importance. Briefly describe the components of IND. | [7] | CO4 |
| 5b. | Discuss the reproductive toxicity study as specified in the OECD guidelines. | [8] | CO3 |
| 6a. | Write short notes on repeated dose oral toxicity study. | [7] | CO2 |
| 6b. | Explain the method of administration of test substances for acute inhalational toxicity study. Discuss the differences between the two existing protocols of acute inhalational toxicity study. | [8] | CO2 |
| 7a. | State the alternate assays used for the ocular irritation test. Describe any one of such assay procedures. | [7] | CO5 |
| 7b. | Illustrate the requirements and methods of the segment studies. | [8] | CO3 |

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