

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

**CLASS: M. PHARMACY
BRANCH: PHARMACEUTICS**

**SEMESTER: I
SESSION: MO2025**

SUBJECT: MPH104T REGULATORY AFFAIRS

TIME: 3.00 Hours

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.

- 1a. Discuss the Orange Book briefly, including its content and format. Briefly describe different sections of the Orange Book. [7]
- 1b. Briefly discuss different classification codes of NDA. Differentiate between different types of copies of NDA submission. [8]

- 2a. Briefly discuss about investigational medical product (IMP). How can this IMP dossier be used in the IND application process? [7]
- 2b. How does FDA ensure generic medicines work the same as brand medicines? Discuss the key criteria required for FDA approval in the case of generic medicine. [8]

- 3a. Discuss briefly the Code of Federal Regulations, including its titles. Differentiate between Section 505(b)(1), Section 505(b)(2) and Section 505(j). [7]
- 3b. Discuss the importance of the investigator's brochure (IB) in a clinical study. Briefly explain different components of IB. Discuss the procedure for IB regulation in European countries. [8]

- 4a. Define documentation and state its importance in the pharmaceutical industry. How documentation could be used in maintaining distribution records. State the information to be recorded while distributing a pharmaceutical product from the manufacturing site. [7]
- 4b. Discuss the objective and significance of bioequivalence study. Briefly discuss the steps followed in the bioequivalence study. [8]

- 5a. Write notes on the FDA review process of an investigational new drug application. [7]
- 5b. Discuss the importance of non-clinical studies in the drug discovery process. Briefly explain different types of non-clinical studies required in the process of drug development. [8]

- 6a. Define Good Clinical Practice (GCP). Explain the responsibilities of the IRB/IEC as defined by the ICH-GCP guidelines. [7]
- 6b. Define pharmacovigilance. Describe why drug safety monitoring is important. [8]
Define the following terms:
 - a) Adverse event
 - b) Serious adverse event
 - c) Adverse drug reaction

- 7a. A) Define HIPAA and mention its objectives. [7]
B) Define a Clinical Trial Protocol. Discuss the various components included in a clinical trial protocol.
- 7b. What is an informed consent process? Describe the essential elements of an informed consent document. [8]
Define legally acceptable representative and discuss under which circumstances the consent process can be waived off.