

INDIRA UNIVERSITY, PUNE

SCHOOL OF PHARMACY- MPHARM (Pharmaceutical Quality Assurance)

Term End Examination (2025 Pattern) April- May – 2026- Semester – II

Course Name: Hazards and Safety Management
Course Code: MQA201T

Max. Marks: 75
Time: 3:00 Hrs.

Instructions

- All Questions are Compulsory. Write two sections on separate answersheets.
 - Neat diagram must be drawn wherever necessary.
 - Figures to the right indicate full marks.
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Section : I

Q.1 Solve any ONE from the following

15 Marks

- Explain how air circulation is maintained in non-sterile areas of the pharmaceutical industry. Describe the role of the HVAC system in controlling air quality and environmental conditions.
- Classify the different industrial hazards and explain in detail the control and prevention strategies applicable to each category.

Q.2 Solve any FOUR from the following

20 Marks

- Describe the multidisciplinary nature of environmental studies.
- Discuss in detail about renewable and non-renewable resources.
- Describe the components of the fire triangle and explain the different types of fire extinguishers.
- Explain Soil and water resources and problems associated with it.
- Write a note on hazards related to radioisotopes.
- Explain the concept of an ecosystem along with its main components and roles.

Section : II

Q.3 Solve any ONE from the following

15 Marks

- Classify the types of chemical hazards with suitable examples. Elaborate on importance and contents of MSDS.
- Explain the ICH guideline on risk assessment and describe the tools used in the process.

Q.4 Solve any TWO from the following

15 Marks

- a. Enlist and discuss briefly the essential components of a safety management program.
- b. Explain the concept of Preliminary Hazard Analysis and describe its procedure.
- c. Identify and describe various physicochemical parameters for measurement of effluents.
- d. Define Hazardous waste and write about its sources. Explain the steps in disposal of hazardous material.

Q.5 Solve any TWO from the following

10 Marks

- a. Illustrate the effluent treatment procedure. Write in brief about primary treatment.
- b. What is TLV concept? Discuss its significance and various threshold limits.
- c. List and explain various types of gases that pose hazards in pharmaceutical operations.
- d. Discuss the main objectives of the Factory Act related to worker safety and health.
