

QP CODE: 211335

Reg. No:.....

**Second Semester M. Pharm Degree Regular Examinations
November 2025**

**M.Pharm Pharmaceutical Quality Assurance
Hazards & Safety Management (MQA 201T)
(2024 Scheme)**

Time: 3 Hours

Total Marks: 75

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

Essays

(3x10=30)

1. Explain what an ecosystem is. Describe its structure, main functions, and importance.
2. Explain the sources of chemical hazards in pharmaceutical industries and discuss their effects on human health and the environment.
3. Discuss the critical hazard management system for controlling fire and explosion risks arising from air- based industrial operations.

Short Notes

(9x5=45)

4. Explain the types of fire extinguishers used in industrial environments and their specific applications.
5. Explain the determination and significance of BOD and COD in effluent analysis.
6. Explain the Natural Resources, Renewable and non-renewable resources.
7. Differentiate between sterile and non-sterile area air circulation requirements.
8. What are Threshold Limit Values (TLVs). Mention their significance in chemical safety.
9. Describe the purpose and functioning of relief systems such as valves, flares, and scrubbers.
10. Discuss the role of the Factory Act and safety management programs in accident prevention.
11. Differentiate between mechanical and chemical explosions with suitable examples.
12. Explain the principles of the ICH guideline on Quality Risk Management
