

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

CLASS: M. PHARM.
BRANCH: PHARMACY

SEMESTER : II
SESSION : SP/19

SUBJECT: MQA201T HAZARDS AND SAFETY MANAGEMENT

TIME: 3:00 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) Describe the physiological effects of carbon monoxide on human. [7]
Q.1(b) Discuss in detail the salient features of National Ambient Air Quality Standards (NAAQS). [8]
- Q.2(a) Write down the main reactions leading to photochemical SMOG. [7]
Q.2(b) Discuss in detail the salient features and procedures of RISK RANKING in PHA. [8]
- Q.3(a) What are volatile organic compounds (VOC's). What is their commercial importance? Discuss the physiological hazards posed by them. [7]
Q.3(b) Describe along with relevant chemical reactions the commonly used agents to reduce SO₃ reactivity during sulphonation and sulfation processes. [8]
- Q.4(a) Write notes on Halons, Halon-replacement clean agents and carbon dioxide as fire extinguishers. [7]
Q.4(b) What is NFPA 704 or the Fire Diamond? Explain in detail. [8]
- Q.5(a) Discuss the preventive and protective management from fires and explosion. [7]
Q.5(b) Define Explosion. Discuss the basic differences between Explosive gas, spray/mist and Dust Clouds. [8]
- Q.6(a) Discuss the physical, chemical, and biological properties of effluents. [7]
Q.6(b) Discuss the various effluent treatment procedures. [8]
- Q.7(a) Define Hazards. Discuss various types of workplace hazards. [7]
Q.7(b) Discuss the ICH guidelines on risk assessment and risk management for handling workplace hazards. [8]

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