

R09

Code No: C5104

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.TECH I SEMESTER EXAMINATIONS, APRIL/MAY-2012
CHEMICAL PROCESS SAFETY
(CHEMICAL ENGINEERING)**

Time: 3hours

Max.Marks:60

**Answer any five questions
All questions carry equal marks**

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1. What are the professional ethics to be followed by engineers in a chemical industry according to AIChE? Explain in detail.
2. a) Define 'toxicology', 'toxic hazard'.
b) Discuss about the flammability characteristics of liquids & vapours.
3. Explain about process hazards that take place in a chemical industry. Discuss it with respect to temperature & pressure, level effects. Give some examples.
4. Describe about 'confined & unconfined explosions' with examples.
5. What is HAZOP study? Explain in detail.
6. Discuss about different types of safety devices used in the chemical industry.
7. What are the safety parameters to be considered while designing a chemical plant? Explain.
8. What are the preventive measures to be taken before major accidents occur in a chemical industry?

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