

Printed Pages : 3



EPL801

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 187801

Roll No.

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B. Tech.

**(SEM. VIII) THEORY EXAMINATION, 2014-15
INDUSTRIAL SAFETY AND HAZARD MANAGEMENT**

Time : 3 Hours]

[Total Marks : 100

Note : Attempt ALL questions. All question carry equal marks.

1 Attempt any FOUR parts of the following: **5x4**

- (a) Explain the term ‘Mist Explosion’ in a process plant and their control techniques.
- (b) Describe the Legislation and Regulation regarding handling of toxic materials.
- (c) Discuss the different elements of safety, in a chemical process plant.
- (d) Write a short note on ‘Explosion hazard index’.
- (e) Explain the term ‘Noise’ in a process plant and their control techniques.
- (f) Discuss ‘Ventilation Systems’ with the suitable examples.

- 2 Attempt any TWO parts of the following : **10x2**
- (a) Give the detail handling procedure for ‘Gaseous Flammable Materials’ with the help of suitable example.
 - (b) Give the classification of ‘Toxic substances’ in the operation of a chemical process plant. Also discuss in detail the estimation procedure of degree of toxicity.
 - (c) Discuss the different components of ‘Fire triangle’? Differentiate between ‘Risk and Safety’ with suitable examples.
- 3 Attempt any TWO parts of the following : **10x2**
- (a) Discuss the entry routes of toxic substances in to human system. Also explain the control techniques for the toxic substances exposure to human being with suitable examples.
 - (b) Discuss the term Disaster Management. Also discuss Risk Management Routines with suitable examples.
 - (c) Describe the working of fire extinguisher. Also discuss the different components of ‘Fire triangle’ with suitable examples.

- 4 Attempt any TWO parts of the following: **10x2**
- (a) Explain the term 'Dust Explosion'. Suggest a suitable control scheme for the safe operation of chemical process plant.
 - (b) Discuss the term 'HAZOP Analysis' with suitable examples.
 - (c) Describe the term 'Fault Tree Analysis'. Explain why it is the best method in comparison to other risk assessment methods.
- 5 Write short notes on any FOUR of the following : **5x4**
- (a) LD₅₀
 - (b) Cavitations
 - (c) TLV
 - (d) Industrial Hygiene
 - (e) ISO 14000
 - (f) Plant Layout .
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