

**M. Tech. –III (Chemical Engineering) (CBCS – 2015 Course) :**  
**WINTER - 2018**

**SUBJECT: SELF STUDY PAPER – I SAFETY ENGINEERING IN INDUSTRIES**

Day: Saturday  
Date: 08/12/2018

**W-2018-3313**

Time: 11.00 AM TO 02.00 PM  
Max Marks. 60

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**N.B.**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
  - 3) Answers to both the sections should be written in **SEPARATE** answer books
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**SECTION – I**

**Q.1** Illustrate various hazards in chemical process industries. **(10)**

**OR**

Illustrate the different precautions to be taken in handling of flammable chemicals in CPI.

**Q.2** Describe various safety aspects in “Plant Operations in CPI” **(10)**

**OR**

Describe various safety considerations in process selection.

**Q.3** List different pollution control acts and describe any one in detail. **(10)**

**OR**

Describe various safety aspects in the handling of toxic materials in CPI.

**SECTION - II**

**Q.4** Illustrate “Safety program in CPI” considering any one manufacturing process **(10)**

**OR**

Justify the “Risk analysis for the manufacturing process” with a suitable example.

**Q.5** What is the MSDS? Which are the different sections in MSDS and describe how it is useful in CPI. **(10)**

**OR**

Describe the importance of MSDS, and give one example of MSDS of any one chemical used in CPI.

**Q.6** Write short notes on : **(10)**

- a) Relief concepts
- b) Design considerations

**OR**

- a) Relief valve
- b) Location of relief