

Total No. of Questions : 6]

SEAT No. :

P1544

[Total No. of Pages : 2

BE/Insem/APR-238

B.E. (Chemical Engineering)

CHEMICAL PROCESS SAFETY (Elective - III)

(2015 Pattern) (Semester - II)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates :

- 1) *Answer Q1 or Q2, Q3 or Q4, Q5 or Q6.*
- 2) *Neat diagram must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Use of Calculator is allowed.*
- 5) *Assume suitable data, if necessary.*

Q1) a) Explain the ingredients of successful safety programs. **[5]**

- b) Explain Fatal accidents rate. A process has a reported FAR of 2. If an employee works a standard 8-hr shift 300 days per year, compute the deaths per person per year. **[5]**

OR

Q2) a) What are the professional ethics concerning safety of society? Explain briefly. **[5]**

- b) How toxicants are Eliminated from Biological Organisms? Explain in detail. **[5]**

Q3) a) Explain government regulations pertaining to safety. **[5]**

- b) Outline the process for evaluating worker's exposure to noise. **[5]**

OR

Q4) a) Explain OSHA process safety management process. **[5]**

- b) Outline the OSHA process safety management process. **[5]**

P.T.O.

Q5) a) Explain briefly : **[5]**

i) auto-ignition temperature

ii) Fire point

iii) Flammability limits

iv) Mechanical explosion

v) Deflagration

b) Explain measures to prevent fires and explosions. **[5]**

OR

Q6) a) Explain limiting oxygen concentration and inerting. **[5]**

b) Explain flammability characteristics of liquids. **[5]**
