

Code No: **R41273****R10****Set No. 1**

IV B.Tech I Semester Supplementary Examinations, February/March - 2018
HSE & FF IN PETROLEUM INDUSTRY
(Petroleum Engineering)

Time: 3 hours**Max. Marks: 75**

Answer any FIVE Questions
All Questions carry equal marks

- 1 a) What are the air pollutants generated during drilling and production operations? Explain with details. [8]
b) Describe various waste management methods employed in Oil & Gas Upstream industry. [7]
- 2 a) Explain about the heavy metals present in drilling fluid and separation process. [8]
b) Explain about the wastes produced during fracturing operations and the process of treatment. [7]
- 3 a) Explain the method of treatment for Air Emissions. [7]
b) Explain about surface and sub surface waste disposal methods. [8]
- 4 a) State the precautions to be taken as per regulations after blow out occur. [8]
b) State the general safety provisions as per oil mines regulations. [7]
- 5 Explain the stage wise process of toxicity entering into Biological Organisms. [15]
- 6 a) How do you carry out HAZOP for Matrix Acidizing Operations? [8]
b) How do you develop a good safety management system for the upstream oil and gas industry? [7]
- 7 a) Explain about Flammability Limits. [8]
b) What is a work permit? Explain with an example. [7]
- 8 Write short notes on the following
a) Distinguish fires and explosions with suitable examples
b) Hazard identification methods
c) Flammability characteristics of liquids and vapours [15]