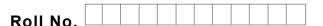
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BTech.(Petroleum Refinary Engineering) (2013 Batch) (Sem.–8) ENVIRONMENTAL TECHNOLOGY AND SAFETY IN PETROLEUM INDUSTRY Subject Code : BTPC-804 Paper ID : [74326]

Time: 3 Hrs.

Max. Marks: 60

INSTRUCTIONS TO CANDIDATES :

- 1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
- 2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
- 3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Answer briefly :

- a. What is HAZOP analysis?
- b. When and where deep water horizon happened?
- c. Name two occupational diseases associated with benzene fume inhalation.
- d. What is the COD limit for the disposal of oil effluent?
- e. Name any one method used in preventive measurement of fire and explosion.
- f. Name two emulsifiers used in oil spills.
- g. What do you mean by bacterial remediation?
- h. Name two bacteria used in bioremediation during oil spills.
- i. What are the types of solids contained in waste water?
- j. What does TLV-TWV abbreviations stand for?



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SECTION-B

- 2. What are environmental aspects of oil field operations with respect to :
 - a. Seismic
 - b. Drilling
 - c. Offshore?
- 3. What are the different types of primary & secondary treatment available for wastewater treatment? Write in details about any two treatments.
- What are effects of emulsification on the oil spills? 4.
- 5. What are Safety audits? What are benefits of Safety audits?
- re wel. SECTION-Control FirstRaftleft 6. What are the procedures for onshore/offshore well abandonment?

- 7. Write short notes on :
 - a. Work Permit system.
 - b. Root cause analysis.
 - c. Job safety analysis.
- 8. Discuss any four important parameters used internationally to assess quality of produced wastewater.
- 9. Write notes on subsurface disposal of petroleum industry waste, Disposal of liquids, Disposal of solids.