

Name:

Enrolment No:



**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**  
**End Semester Examination, April/May 2018**

**Course: B.Tech(Chemical Engineering with spl in refining and petrochemicals), B.Tech(Applied Petroleum Engineering with gas specialization)**

**Semester: VIII**

**Program: B.Tech(Chemical Engineering with spl in refining and petrochemicals), B.Tech(Applied Petroleum Engineering with gas specialization)**

**Time: 03 hrs.**

**Subject- Safety, Health and Environment Management.**

**Code:ENVO401**

**Max. Marks: 100**

**Instructions:** \*The question paper consists of three sections. Answer the questions section wise in the answer booklet.

**Note:** Assume suitable data wherever necessary

**SECTION A**

**Attempt all the questions. All questions carry equal marks**

**Total Marks=20**

S. No.		Marks	CO
Q 1	Discuss accident and loss statistics.	4	CO1
Q2	Discuss OSHA's right of enforcement	4	CO2
Q3	What do you mean by NIOSH? Discuss in details.	4	CO2
Q4	What do you mean by noise pollution and how will you evaluate worker exposures to noise?	4	CO3
Q5	How will you evaluate worker exposures to dust?	4	CO4

**SECTION B**

**(Answer all questions, Total Marks=40)**

Q6	Describe and discuss Material Safety Data Sheets in details.	8	CO5
Q7	Discuss and describe engineering ethics in environmental engineering discipline.	8	CO2

Q8	Discuss and describe evaluation exposures to volatile toxicants by monitoring.	8	CO4
Q9	Describe and discuss in details how will you estimate worker exposures to toxic vapors.	8	CO6
Q10	Discuss source models in details.	8	CO5
<b>SECTION-C(Total Marks-40)</b> <b>Answer both the questions.</b>			
Q11	In source models, discuss in details flow of liquid through a hole. Discuss chemical plant control techniques.	20	CO5
Q12	In source models, find the volumetric flow rate in case of flow of vapor through holes. Also discuss toxic release and dispersion models.	20	CO6