

Name:

Enrolment No:



**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**

**End Semester Examination, December 2018**

**Programme Name : Health Safety & Environmental Issues**

**Semester : VII**

**Course Name : Environmental Impact Assessment**

**Time : 03 Hrs**

**Course Code : ENVO 406**

**Max. Marks : 100**

**Nos. of page(s) : 2**

**Instructions: Please attempt all questions from Section “A”, Section “B” and Section “C”**

**SECTION A : 20 Marks**

Q.1.	Define following terms. ( 2 x 2 = 4 Marks) a) Mechanical Integrity                                      b) Process Hazard Analysis	4	CO2
Q.2.	Write any six salient features of HSE policy.	4	CO2
Q.3.	Briefly discuss the salient features of Petroleum Act 1934.	4	CO1
Q.4.	Noise by definition is unwanted & undesirable sound, what is pleasant to some ears it may be extremely unpleasant to other, depending on a number of physiological factors. What are the various sources and effects of noise pollution on human being?	4	CO3
Q.5.	Define physical hazard? What are the different types of physical hazards?	4	CO3

**SECTION B : 40 Marks**

**Note : Student are required to attempt all questions from Section “B” however internal choice is given among Q. 10 and Q.11 student may attempt any one question i.e Q.10 or Q.11**

Q.6.	What is Ergonomic? What are different types of ergonomic hazards? Explain ergonomic task analysis to eliminate ergonomic hazards from workplace	8	CO3
Q.7.	Risk assessment is a process by which results of a risk analysis are used to make decisions either through comparison with risk targets or through relative ranking of risk reduction strategies. Discuss the objectives of Quantitative Risk Assessment.	8	CO3
Q.8.	What is disaster? What are the objectives of emergency / disaster management plan? Write all the elements of major emergency /disaster management plan.	8	CO3
Q.9.	Write the importance of Custodianship and ownership to manage HSE effectively in Petroleum Complex. Describe the procedure of Custodianship and ownership.	8	CO2

Q.10..	What are the different types and objectives of HSE Audit? Write brief methodology which you will follow for conducting HSE audit in Oil and Gas sector.  <u>Or</u>	8	CO2
Q.11.	Process safety management is an analytical tool focused on preventing releases of any substance defined as a "highly hazardous chemicals" by the EPA or OSHA. Discuss prestart safety review and operating procedure for the petroleum installation.	8	CO2
<b>SECTION-C (40 Marks)</b>			
<b>Note : Question No. 12 is compulsory and student may attempt any one question i.e either Q.13 or Q.14</b>			
Q.12	International Standards covering environmental management are intended to provide organizations with the elements of an effective environmental management system which can be integrated with other management requirements, to assist organizations to achieve environmental and economic goals. Describe all the elements of EMS clauses which is used for taking ISO 14001 : 2015 certification in the industries or organization.	20	CO4
Q13	Explain the salient features of the following act. ( 2x 10 = 20 Marks)  a) The Air (Prevention and Control of Pollution ) Act 1981 b) The Environmental ( Protection Rule) 1986  <u>Or</u>	20	CO1
	What are the objectives of EIA. Explain Rapid and Comprehensive EIA. Identify various component and methodologies of EIA which are considered during conducting EIA process for taking environmental clearance from Ministry of environment and Forest and Climate Change.	20	CO4

**Note: - Pl. start your question paper from next page**

<b>Name:</b>	
<b>Enrolment No:</b>	

**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**

**End Semester Examination, December 2018**

**Programme Name: Health Safety & Environmental Issues**

**Semester : VII**

**Course Name : Health Safety & Environmental Issues**

**Time : 03 Hrs**

**Course Code : ENVO 406**

**Max. Marks : 100**

**Nos. of page(s) : 2**

**Instructions: Please attempt all questions from Section “A”, Section “B” and Section “C”**

**SECTION A : 20 Marks**

Q.1.	Define following terms ( 2 x 2 = 4 Marks) a) Process Safety Information                                      b) SOP	<b>4</b>	<b>CO2</b>
Q.2.	Discuss the need for HSE management and Custodianship /Ownership in petroleum installation.	<b>4</b>	<b>CO2</b>
Q.3.	Briefly discuss the salient features of the Indian Electricity Act 1910.	<b>4</b>	<b>CO1</b>
Q.4.	Noise by definition is unwanted & undesirable sound, what is pleasant to some ears it may be extremely unpleasant to other, depending on a number of physiological factors. Discuss different sources and effects of noise pollution on human being.	<b>4</b>	<b>CO3</b>
Q.5	Define biological hazards. What are the different types of biological hazards?	<b>4</b>	<b>CO3</b>

**SECTION B : 40 Marks**

**Note : Student are required to attempt all questions from Section “B” however internal choice is given among Q. 10 and Q.11 student may attempt any one question i.e Q.10 or Q.11**

Q.6.	Risk assessment is a process by which results of a risk analysis are used to make decisions either through comparison with risk targets or through relative ranking of risk reduction strategies. Discuss the objectives of Quantitative Risk Assessment.	<b>8</b>	<b>CO3</b>
Q.7.	What are the different types / categories of disaster? What are the objectives of emergency / disaster management plan? Write all the elements of major emergency /disaster management plan. ?	<b>8</b>	<b>CO3</b>
Q.8.	Process safety management is an analytical tool focused on preventing releases of any substance defined as a "highly hazardous chemicals" by the EPA or OSHA. Discuss prestart safety review and operating procedure for the petroleum installation.	<b>8</b>	<b>CO2</b>

Q.9.	Write the importance of Custodianship and ownership to manage HSE effectively in Petroleum Complex. Describe the procedure of Custodianship and ownership. <u>Or</u>	8	CO2
Q.10	What is an ergonomics ?. Explain any three programme which are designed to eliminate ergonomics hazards.  <u>Or</u>	8	CO3
Q.11.	What are the different types and objectives of HSE Audit? Write brief methodology which you will follow for conducting HSE audit in Oil and Gas sector.	8	
<b>SECTION-C (40 Marks)</b>			
<b>Note : Question No. 12 is compulsory and student may attempt any one question i.e either Q.13 or Q.14</b>			
Q.12	What is the aim and mission of ISO? Explain PDCA Cycle . Describe any ten elements of EMS clauses which are used for taking ISO 14001 : 2015 certification in the industries or organization	20	CO4
Q13	Describe the Prior Environmental Clearance Process for activities falling under category A and Category B Projects, as per the revised Notification issued on 14 <sup>th</sup> September , 2006 for thermal power plant with schematic diagram. Explain various methodologies of EIA.	20	CO4
Q.14	Explain the salient features of the following act. ( 2x 10 = 20 Marks)  a) The Water (Prevention and Control of Pollution ) Cess Act 1977 b) The Environmental ( Protection Rule) 1986	20	CO1