


Name:			
Enrolment No:			
UPES End-Semester Examination, April/May 2024			
Programme Name: B.Tech. CSE (All Programmes) Course Name: Health, Safety, Security and Environmental Implications in Oil and Gas Industry Course Code: CSOG4005P Instructions: Sections B & C has internal choice.		Semester: 8 Time: 3 hrs Max. Marks: 100	
SECTION A (5Qx4M=20Marks)			
S. No.		Marks	CO
Q1	Differentiate: Hepatotoxin, Nephrotoxin, and Neurotoxins.	4	CO1
Q2	What is the role of an Employer and Employee in the Planning and Prevention process related to the requirement of PPE?	4	CO3
Q3	List the responsibilities of the Controller of the disaster management committee.	4	CO4
Q4	Mention the potential Environmental impacts of the Oil and gas exploration and production operations.	4	CO5
Q5	Jot down the purpose of the Health, Safety and Environment (HSE) compliance standards.	4	CO6
SECTION B (4Qx10M= 40 Marks)			
Q6	Contrast Failure Mode and Effects Analysis (FMEA) and Root Cause Analysis. Provide a brief note on the steps adopted in FMEA.	10	CO2
Q7	Elaborate the key elements of the Disaster Management Plan.	10	CO4
Q8	(a) Depict the key elements of the HSE-Management System model with a neat diagram and explain its key elements. OR (b) Provide ten Environmental protection measures and detail their importance.	10	CO5
Q9	Elaborate on the purpose and minimum standard required for (i) Mobile equipment and traffic management, and (ii) Electrical safety.	10	CO6
SECTION-C (2Qx20M=40 Marks)			
Q10	(a) (i) Discuss Atmospheric impacts, Aquatic impacts, Terrestrial impacts, and Ecosystem impacts of the Oil and gas exploration and production operations. (ii) Provide a detailed note on Hand and Arm protection. OR (b) (i) What is Oil spill contingency planning? List down the steps involved in this planning and detail each step, (ii) Provide a detailed note on Foot and Leg protection.	10+10	CO5 CO3
Q11	(a) Elaborate on the purpose and minimum standards required for (i) Workplace occupational health monitoring, and (ii) Inundation and inrush (b) Elaborate on (i) Well Blow Out, (ii) Failure of Mud system, and (iii) Fire Fighting Facility.	10+10	CO6 CO4