

Name:			
Enrolment No:			
UPES End Semester Examination, May 2024 Course: Health safety and Environment regulation in Energy Sector Semester : VIII Program: BALL.B/ BBALL.B/ B.Com LL.B Time : 03 hrs. Course Code: CLEL4005 Max. Marks: 100 Instructions: All questions are compulsory. Kindly attempt all parts of a question together.			
SECTION A (5Qx2M=10Marks)			
S. No.		Marks	CO
Q 1.	State the primary objective of bridging the gap between energy supply and demand?	2	CO1
Q 2.	List two examples of regulatory agencies responsible for HSE in India.	2	CO1
Q 3.	Define the concept of hazard in the context of occupational health and safety.	2	CO1
Q 4.	Mention one environmental challenge specifically associated with the oil and gas industry and how to deal with it.	2	CO1
Q 5.	State the Difference Between ISO 14001 and 50001.	2	CO1
SECTION B (4Qx5M= 20 Marks) Short answer type questions			
Q 6.	Explain the role of a Permit to Work System in ensuring safety during maintenance activities.	5	CO2
Q 7.	Describe the key elements typically included in an integrated HSE management system.	5	CO2
Q 8.	Describe the limitations of relying solely on regulatory agencies to enforce effective HSE practices.	5	CO2

Q 9.	Discuss the importance of conducting a risk assessment before commencing any work activity.	5	CO2
SECTION-C (2Qx10M=20 Marks) Long answer type questions			
Q 10.	Examine the potential benefits of implementing an Environmental Management System (EMS) within an organization with the help of relevant ISO's.	10	CO3
Q 11.	Examine and design a flow chart illustrating the steps involved in conducting an Environmental Impact Assessment (EIA) for a new energy project.	10	CO3
SECTION-D (2Qx25M=50 Marks) Case study-based questions			
Q 12.	<p>Scenario:</p> <p>Omega Oil, a leading offshore oil drilling company, has experienced a catastrophic fire on one of its drilling platforms. The fire poses a significant threat to the safety of personnel, the environment, and the company's operations.</p> <p>Source A:</p> <p>HSE regulations mandate the development and implementation of comprehensive emergency response plans for offshore drilling operations. These plans should outline clear procedures for evacuation, containment, communication, and emergency response actions.</p> <p>Source B:</p> <p>A recent report by the International Renewable Energy Agency (IRENA) highlights the urgency of transitioning to sustainable energy sources like solar and wind power. This shift is crucial for mitigating the environmental impact of traditional energy production methods and ensuring long-term energy security for future generations.</p>	25	CO4

	<p>1. Analyze the importance of a comprehensive emergency response plan, as emphasized in Source A. How would such a plan guide Omega Oil's response to the fire outbreak on the offshore platform? Discuss the key elements the plan should address to ensure effective evacuation, containment, communication, and emergency response. (15 marks)</p> <p>2. Evaluate the ethical dilemma presented in the scenario. Source B highlights the environmental consequences of traditional energy production, while Omega Oil fulfills a critical role in meeting global energy demands. Discuss the ethical considerations involved in balancing these needs. How can Omega Oil incorporate sustainable energy solutions proposed in Source B, while ensuring energy security? (10 marks)</p>		
Q 13.	<p>Scenario:</p> <p>Omega Oil, a leading offshore oil drilling company, has experienced a catastrophic fire on one of its drilling platforms. The fire poses a significant threat to the safety of personnel, the environment, and the company's operations.</p> <p>Source A:</p> <p>HSE regulations mandate the development and implementation of comprehensive emergency response plans for offshore drilling operations. These plans should outline clear procedures for evacuation, containment, communication, and emergency response actions.</p> <p>Source B:</p> <p>A recent report by the International Renewable Energy Agency (IRENA) highlights the urgency of transitioning to sustainable energy sources like solar and wind power. This shift is crucial for mitigating the</p>	25	CO4

	<p>environmental impact of traditional energy production methods and ensuring long-term energy security for future generations.</p> <p>1. Develop a comprehensive HSE policy for Omega Oil that prioritizes both safety and environmental sustainability. Discuss the potential challenges in implementing such a policy and propose strategies to overcome them. (25 marks)</p>		
--	---	--	--