

Course Title: Engineering Ethics and Environmental Protection

Course Number: HUM 321

For the Students with Even Roll Numbers

Presentation

Question:

Prepare a presentation analyzing the Chernobyl Nuclear Disaster of 1986, covering its causes, impacts on human health and the environment, and the evolution of nuclear safety protocols in response to the disaster. **Conclude** by discussing key lessons learned and how Chernobyl has shaped modern nuclear safety regulations. **Ensure** a clear, well-organized presentation with supporting references.

Mark Distribution (Total: 8 Marks)

No	Headline	Brief Description	Marks
1	Introduction	Briefly introduce the Chernobyl disaster, its historical significance, and its relevance to nuclear safety.	1
2	Causes of the Disaster	Explain the technical faults, reactor design flaws, human errors, and procedural failures that led to the accident.	1.5
3	Health and Environmental Impacts	Discuss both immediate and long-term health consequences for workers and surrounding communities, as well as environmental effects.	1.5
4	Post-Disaster Global Safety Reforms	Outline the international response, including new safety protocols, regulatory changes, and improved emergency preparedness.	1.5
5	Lessons Learned and Long-Term Influence	Summarize key lessons learned from Chernobyl and how the incident influenced reactor design, safety culture, and global nuclear policy.	1.5
6	Conclusion and Presentation Quality	Conclude with reflections on the importance of nuclear safety, highlighting Chernobyl's legacy. Ensure organized and professional presentation with accurate references	1

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For the Students with Odd Roll Numbers

Presentation

Question:

Prepare a presentation analyzing the Bhopal Gas Tragedy of 1984, covering the causes of the accident, impacts on human health and the environment, and changes to industrial safety protocols in its aftermath. **Conclude** by discussing lessons learned and how the disaster has influenced modern safety regulations for chemical industries. **Ensure** a clear, well-organized presentation with supporting references.

Mark Distribution (Total: 8 Marks)

No	Headline	Brief Description	Marks
1	Introduction	Provide a brief background on the Bhopal disaster, including its historical significance and relevance to industrial safety.	1
2	Causes of the Accident	Explain the technical failures, human errors, and lapses in safety protocols that led to the release of toxic gas.	1.5
3	Immediate and Long-Term Impacts	Discuss the health consequences for affected communities, environmental degradation, and socioeconomic effects.	1.5
4	Post-Disaster Safety Protocol Changes	Outline changes in industrial safety standards, regulatory policies, and emergency preparedness that followed the disaster.	1.5
5	Lessons Learned and Influence on Modern Safety Standards	Summarize key lessons from Bhopal and how the incident influenced risk management and safety regulations in the chemical industry worldwide.	1.5
6	Conclusion and Presentation Quality	Conclude with reflections on the importance of industrial safety, highlighting Bhopal's legacy. Ensure organized and professional presentation with accurate references.	1