

**ASSIGNMENT BOOKLET**

**POST GRADUATE DIPLOMA IN INDUSTRIAL SAFETY  
(PGDINDS)**

**FIRST SEMESTER**

**Last date for submission:**

**31<sup>st</sup> October for July 2025 Session**

**School of Engineering and Technology  
Indira Gandhi National Open University  
Maidan Garhi, New Delhi-110068**

Dear Student,

We advise you to go through your course material carefully and read all the sections pertaining to assignments. As you are aware, a weightage of 30 per cent of marks, has been earmarked for continuous evaluation which would consist of **one tutor-marked assignment** for each of MIS021, MIS022, MIS023 & MIS024 courses. You have to score a minimum of 40 marks out of 100 marks in each of the assignment. **Submit your assignments at your respective Regional Centre. Any Queries related to Assignments send strictly to the email ID: [pgdinds@ignou.ac.in](mailto:pgdinds@ignou.ac.in)**

### Instructions for Submitting Your Assignments

Before attempting the assignment, please read the following instructions carefully.

- 1) On top of the first page of your TMA answer sheet, please write the details exactly in the following format:

---

**ENROLMENT NO:** .....

**NAME:** .....

**ADDRESS:** .....

.....

**Email ID :** .....

**COURSECODE:** .....

**COURSETITLE:** .....

**PROGRAMME:** .....

**STUDYCENTRE:** .....      **DATE:**.....

---

**PLEASE FOLLOW THE ABOVE FORMAT STRICTLY TO FACILITATE EVALUATION AND TO AVOID DELAY.**

- 2) Use only full size writing paper (but not of very thin variety) for writing your answers.
- 3) Leave 2 cm margin on the left, top and bottom of your answer sheet.
- 4) Your answers should be precise.
- 5) Only hand written answers are acceptable. Do not submit typed or photocopied answers.**
- 6) While solving problems, clearly indicate the question number along with the part being solved. Be precise. Recheck your work before submitting it.

Answer sheets received after the due date shall not be accepted.

**We strongly feel that you should retain a copy of your assignment response to avoid any unforeseen situations and append, if possible, a photocopy of this booklet with your response.**

We wish you good luck.

**Assignment -4**  
(To be done **after** studying the course material)

**Course Code: MIS-024**  
**Course Title: Mechanical and Electrical Safety Management**  
**Assignment Code: MIS-024/TMA/2024**  
**Maximum Marks: 100**  
**Last Date of Submission: October 31, 2025**

**Note: Attempt all questions. All questions carry equal marks.**

---

Q.1	Explain the purpose and working mechanism of safeguarding devices used in machinery. Provide two real-world examples.	10
Q.2	What are the ergonomic considerations in designing machine workplaces to minimize accidents?	10
Q.3	Identify and discuss risk factors associated with mechanical material handling equipment (MMHE). How can these risks be mitigated?	10
Q.4	Define the concept of a "work permit system" in mechanical safety. Why is it essential in industrial operations?	10
Q.5	Explain the types of electrical hazards commonly encountered in industrial settings. Propose mitigation strategies for each.	10
Q.6	What is Lockout-Tagout (LOTO)? Outline its steps and explain its importance in ensuring electrical safety.	10
Q.7	Describe the role of earthing and earth leakage protection devices in preventing electrical accidents.	10
Q.8	Discuss suitable Personal Protective Equipment (PPE) used during welding and high-voltage operations, and their safety significance.	10
Q.9	Analyze a mechanical or electrical accident scenario based on the principles from both the blocks of the study material. Identify root causes and prevention measures.	5+5=10
Q.10	Outline the main components of a safety audit covering both mechanical and electrical systems. How does such an audit drive continuous safety improvement?	10