PGDINDS - January 2025

ASSIGNMENT BOOKLET

POST GRADUATE DIPLOMA IN INDUSTRIAL SAFETY (PGDINDS)

FIRST SEMESTER

Last date for submission:

30th April for January 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**

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 -1
(To be done **after** studying the course material)

Course Code: MIS-021
Course Title: Safety Philosophy and Principles of Accident Prevention
Assignment Code: MIS-021/TMA/2024
Maximum Marks: 100
Last Date of Submission: April 30, 2025

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

Q.1	Explain the importance of industrial safety. Briefly describe various types of safety with suitable examples.	10
Q.2	Explain Fire Triangle. Classify different types of fire and explain how they could be extinguished.	10
Q.3	Define loss control. How losses are categorized? Describe the various elements of loss control.	10
Q.4	What is a safety management system? Describe the important management approaches towards safety management system.	10
Q.5	Explain the benefits of 5 'S' in an industry.	10
Q.6	Discuss the methods of safety training with their relative advantages and limitations.	10
Q.7	Describe the various approaches for the cost analysis of an accident in brief.	10
Q.8	Explain the key risk areas in crane operations.	10
Q.9	What is PPE? Explain importance of PPE for safety of head and eyes and also discuss the equipments used for it.	10
Q.10	Write short notes on the following: a) Roles and Responsibility of Safety Manager b) Advanced investigation technique c) Fault tree analysis d) Hazard control system	10

Assignment -2
(To be done **after** studying the course material)

Course Code: MIS-022
Course Title: Industrial Safety: Rules and Acts
Assignment Code: MIS-022/TMA/2024
Maximum Marks: 100
Last Date of Submission: April 30, 2025

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

Q.1	a) What is safety in Industry? Describe in brief the Industrial Safety management.	5
	b) Describe the various functions of safety in industry.	5
Q.2	a) What are the four pillars of safety design? Describe briefly.	5
	b) What is EMS? How is it related to safety engineering?	5
Q.3	a) What are the amendments made in the factory Act 1948? Discuss.	5
	b) What is occupational safety training? What is its significance in industry?	5
Q.4	a) How do you classify audit system? Explain briefly.	5
	b) What is standardization? Discuss the role of BIS in monitoring and maintaining standards.	5
Q.5	a) What is safety audit? What is its significance? How does it differ from financial audit?	5
	b) What do you understand about factory Act 1948? Enumerate the objectives of the factories Act.	5
Q.6	a) Explain the provisions of holidays and leaves prescribed under the factory Act 1948.	5
	b) What do you understand by the term 'Liability'? How do you approach liability with legal sense?	5
Q.7	a) Discuss the role of an occupier in case of health and safety, particularly in hazardous factories.	5
	b) In which situation accidents occur and how the accidents could be prevented?	5
Q.8	a) Briefly explain the provisions for safety workers under the factories Act, 1948.	5
	b) Discuss the approval process for starting a new factory.	5

Q.9	a) Discuss the general penalty Offences under section 92 to 106 A in factory Act 1948.	5
	b) Briefly explain about the judgement related to computer related offences.	5
Q.10	Write short notes on the following a) Disposal of waste b) Wage and Salary	5+5

Assignment -3
(To be done **after** studying the course material)

Course Code: MIS-023
Course Title: Safety in Construction Industry
Assignment Code: MIS-023/TMA/2024
Maximum Marks: 100
Last Date of Submission: April 30, 2025

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

Q.1	Describe the salient features of various accident causation theories.	10
Q.2	Discuss various accident prevention techniques.	10
Q.3	a) Describe the benefits of accident prevention.	5
	b) Mention the responsibilities of the employer for safety of workmen.	5
Q.4	Describe various Personal Protective Equipment (PPE) and their uses in detail.	10
Q.5	a) What measures should be taken while working in underground construction?	5
	b) What is tunneling? Describe the hazards and risks involved in tunneling.	5
Q.6	a) Discuss the ventilation and illumination requirements in underground works.	5
	b) Explain the special air monitoring requirements.	5
Q.7	What is scaffolding? Discuss various types of scaffolding.	10
Q.8	Describe various types of ladder. Describe safe practices to be followed during use of ladder.	10
Q.9	a) Describe various waste management methods at a construction site.	5
	b) Discuss common causes of injury during mechanical demolition.	5
Q.10	Discuss a case study on accident in construction. The case should be different from those given in the study material. Discuss the following aspects of the accident: i. Cause of accident ii. Description of losses / damages in accident iii. Remedial measures taken iv. Preventive measures that could have avoided the accident	10

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: April 30, 2025

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

Q.1	What do you understand by safe guarding? Discuss various methods of safeguarding.	10
Q.2	What is mechanical material handling? What are the risk factors associated with mechanical materials handling?	10
Q.3	Explain in brief the various hazards in welding operations?	10
Q.4	What are the correct equipments to prevent fire in the work place? Explain.	10
Q.5	Discuss the various responsibilities of an employee in ensuring safe guarding of machines.	10
Q.6	What is wood manufacturing plant? What main precautions workers should follow in a wood plant?	10
Q.7	What is UCIL and which material was causing the health hazard in UCIL accident? What are the major causes of failures in VIZAG GAS Leak?	10
Q.8	What do you understand about Electrical hazards? List out some common electrical hazards and also explain how these risks can be mitigated.	10
Q.9	(a) What is First Aid? What are the procedures of First Aid to be followed for unconscious electric shock victims? (b) What is the purpose of First Aid in Education and Training? Explain various Training methods.	5+5=10
Q.10	What is reliability? What are safety laws and the roles of supervisors and training in industrial safety?	10