

**Gandhi Institute of Engineering and Technology University, Odisha, Gunupur
(GIET University)**



M.Tech. (First Semester – Regular/Supplementary) Examinations, January – 2026

**24MISPC11004 – Safety in Construction
(Industrial Safety Engineering)**

Time: 2 hrs

Maximum: 60 Marks

Answer ALL questions

(The figures in the right hand margin indicate marks)

PART – A

(2 x 5 = 10 Marks)

Q.1. Answer **ALL** questions

	CO #	Blooms Level
a. Define the term hazard in the context of construction activities.	CO2	K1
b. State the objective of risk assessment in construction safety.	CO3	K2
c. Mention two types of PPE used for head and hand protection.	CO4	K1
d. Name the key personnel responsible for safety management at a construction site.	CO6	K1
e. State any two consequences of non-compliance with safety regulations.	CO1	K1

PART – B

(10 x 5 = 50 Marks)

Answer ALL the questions

	Marks	CO #	Blooms Level
2. a. Discuss the role of safety culture in improving safety performance at construction sites.	5	CO1	K3
b. Explain how understanding safety regulations contributes to accident prevention in construction.	5	CO1	K3
(OR)			
c. Identify common safety challenges in construction projects and explain methods to address them	5	CO2	K3
d. Explain the objectives and scope of construction safety management in large infrastructure projects	5	CO1	K3
3.a. Compare qualitative, quantitative, and semi-quantitative risk assessment methods.	5	CO2	K3
b. Discuss the importance of hazard reporting and incident reporting systems in construction projects.	5	CO3	K4
(OR)			
c. Discuss the role of near-miss reporting in hazard identification and continuous improvement of construction safety.	10	CO2	K3
4.a. Describe safety measures adopted during excavation and trenching operations.	5	CO4	K3
b. Explain the role of PPE and safety protocols in minimizing occupational injuries in construction.	5	CO4	K3
(OR)			
c. Explain the importance of emergency preparedness and response planning for fire, electrical, and structural accidents at construction sites.	10	CO4	K3
5.a. Explain the procedure for accident investigation and identification of root causes.	5	CO6	K3
b. Discuss the importance of safety training programs for supervisors, workers, and managers.	5	CO6	K3
(OR)			
c. Explain how effective safety management systems help in reducing accidents and improving productivity.	10	CO6	K4

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| 6.a. | Explain the documentation, record-keeping, and reporting requirements for construction safety compliance. | 5 | CO5 | K3 |
| b. | Explain how regulatory compliance supports effective safety management and accident prevention. | 5 | CO5 | K3 |
| (OR) | | | | |
| c. | Explain the process of conducting a safety audit to ensure compliance with construction safety regulations. | 10 | CO1 | K4 |

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