MAR ATHANASIUS COLLEGE OF ENGINEERING, KOTHAMANGALAM

(GOVERNMENT AIDED AUTONOMOUS ENGINEERING COLLEGE)

DEPARTMENT OF CIVIL ENGINEERING

Second Sessional Examination October 2026

MCN401-Industrial Safety Engineering

(S7 CA & CB)

Max. Marks 40 Time :1 Hour 30 Minutes

Answer all questions from Part A and Part B

PART A (4X3=12 Marks)

1. What are the safety precautions to be taken before entering a confined space. (CO3)
2. Explain any important four safety practices in excavation work. (CO3)
3. Explain the different safety issues in gas welding operations. (CO4)
4. Explain the importance of material handling. (CO4)

PART B (2 X14=28 marks)

5. a) Distinguish ladders and scaffolds along with their safety features. (7 Marks) (CO3)

   b) You are appointed as a safety manager for a demolition work of a l0-storey building in a congested residential area. What are the safety measures that you need to ensure for the completion of the work? (7 marks) (CO3)

6. a) With suitable sketches explain the operation of any two types of safety guards suitable for industrial applications. (8 Marks) (CO4)

   b) Explain the potential hazards associated with grinding operations. (6 marks) (CO4)

Course Outcomes:
Students will be able to

CO3	Understand different issues in construction industries.
CO4	Understand various hazards associated with different machines and mechanical material handling.

Vision

A department that is proficient in all aspects of civil Engineering education, blending theory and practice.

Mission

- To impart the right combination of civil Engineering fundamentals and use of modern tools to the students.
- To encourage learning with due emphasis given to professional ethics and traditional norms.
- To enhance the knowledge base of students in liaison with practice and research.
- To encourage life-long learning.

Question No	1	2	3	4	5	6	Total Marks
CO Mapping	CO3	CO3	CO4	CO4	CO3	CO4	
Bloom's Taxonomy level	2	2	2	2	2	2	
Marks	3	3	3	3	14	14	40

	Prepared by	Scrutinized by	Approved by
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