

THE KAVERY ENGINEERING COLLEGE
(An Autonomous Institution)

M.E DEGREE END SEMESTER THEORY EXAMINATIONS, NOV /DEC 2024

Second Semester

Construction Engineering and Management

CN4005- Project Safety Management

Regulations - 2021

Duration : 3 Hrs

Maximum : 100 Marks

PART - A (ANSWER ALL QUESTIONS) (Marks 10*2=20)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
1.	List two primary causes of construction accidents.	RE	1	2
2.	Identify one method for assessing occupational safety hazards on a construction site.	AN	1	2
3.	Why safety meetings are important for construction projects.	AN	2	2
4.	Differentiate between a job-site safety assessment and a safety program.	AN	2	2
5.	Identify one preventive measure for substance abuse on a construction site.	AP	3	2
6.	Describe the role of safety clauses in construction contracts.	UN	3	2
7.	List out the responsibilities of safety personnel on construction projects.	RE	4	2
8.	Compare the roles of middle managers and top management in ensuring safety.	EV	4	2
9.	Suggest one way as a designer, you can incorporate safety rules into the plant.	CR	5	2
10.	Write the safety responsibilities of owners in construction projects.	RE	5	2

PART - B (ANSWER ALL QUESTIONS) (Marks 5*13 = 65)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
11.	a i What are the human factors that are attacked and contribute accidentally in the construction area?	UN	1	8
	ii Explain the concept of safety hazard assessment and describe its importance in managing occupational safety on construction projects.	UN	1	5
Or				
	b i Interpret the different types of costs associated with construction injuries. How do these costs affect project budgets and timelines?	UN	1	8
	ii Explain how safety training can reduce human error on construction sites.	UN	1	5
12.	a i Design a weekly safety program that includes assessments, meetings, and incentives tailored for a high-risk construction site.	CR	2	10
	ii Develop a checklist for conducting a job-site safety assessment.	CR	2	3

Or

	b	i	Imagine you are tasked with creating a safety training module for new construction workers. Outline the key topics and activities you would include to ensure they understand critical safety procedures.	CR	2	10
		ii	Design a communication strategy for improving safety awareness among workers on a large construction project.	CR	2	3
13.	a	i	Examine the challenges of safety record-keeping on large construction projects. How can these challenges be addressed to improve accuracy and compliance?	AN	3	5
		ii	Discuss the contractual responsibilities of construction companies when it comes to ensuring the safety of temporary or contract workers.	AN	3	8
Or						
	b	i	Examine the challenges associated with substance abuse on construction sites.	AN	3	5
		ii	Examine how the Occupational Safety and Health Administration (OSHA) guidelines differ from Indian construction safety laws in terms of enforcement and worker protection.	AN	3	8
14.	a	i	Describe how top management can implement policies to strengthen the safety culture within a construction company.	AP	4	5
		ii	Apply the concepts of subcontractor safety obligations by drafting a checklist that would help subcontractors adhere to the primary contractor's safety standards on-site.	AP	4	8
Or						
	b	i	You are tasked with training new safety personnel for a construction project. Describe a training module that would prepare them to handle daily safety assessments, incident reporting, and worker compliance monitoring.	AP	4	5
		ii	Apply your knowledge of worker compensation policies by outlining the steps a company should take when a worker is injured on-site.	AP	4	8
15.	a	i	Evaluate the role of owners in promoting safety. How can owners ensure that contractors and designers follow safety protocols throughout the project?	EV	5	8
		ii	Assess the effectiveness of including a safety clause in design documents.	EV	5	5
Or						
	b	i	Critique the preparedness measures that designers and owners should adopt in case of on-site emergencies.	EV	5	8
		ii	Evaluate the role of project coordination in ensuring safety among various stakeholders, including owners, designers, and contractors.	EV	5	5

*PART – C (Marks 1*15 = 15)*

<i>Q.No</i>		<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
16.	a i	Discuss the role of a designer in promoting construction safety through design choices.	RE	5	8
	ii	Compare the safety responsibilities of owners and designers. How do their roles differ in preventing on-site accidents?	RE	5	7
Or					
	b i	Assume you are a safety supervisor; outline a daily protocol for ensuring workers and equipment are ready for safe operation.	AP	4	8
	ii	Examine the responsibilities of top management, middle managers, and frontline supervisors in building a safety culture. How does each contribute to safety?	AP	4	7