

Q.6	Attempt any two:					
i.	Critically evaluate the penalties prescribed under the Building & Other Construction Workers Act, 1996 for non-compliance.	5	1	11	5	2
ii.	Explain the process of registration for construction workers and the benefits they are entitled to under the Building & Other Construction Workers Act.	5	2	11	5	2
iii.	Discuss the importance of the Building & Other Construction Workers (RE & CS) Act, 1996, and its impact on the welfare of construction workers.	5	2	11	5	2

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Total No. of Questions: 6

Total No. of Printed Pages:4

Enrollment No.....



Faculty of Engineering  
End Sem Examination Dec 2024  
FT3EL13 Safety in Constructions

Programme: B.Tech.

Branch/Specialisation: FT

Duration: 3 Hrs.

Maximum Marks: 60

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d. Assume suitable data if necessary. Notations and symbols have their usual meaning.

		Marks	BL	PO	CO	PSO
Q.1	i. What is the primary cause of accidents in the construction industry?	1	1	2	1	1
	(a) Lack of proper tools					
	(b) Non-compliance with safety protocols					
	(c) Environmental conditions					
	(d) Poor communication					
	ii. Which of the following is a human factor affecting construction safety?	1	1	2	1	2
	(a) Use of PPE					
	(b) Stress and fatigue					
	(c) Safety training programs					
	(d) Ergonomic tool design					
	iii. What is the ideal width of a scaffold plank according to the National Building Code?	1	1	4	1	2
	(a) 200 mm					
	(b) 250 mm					
	(c) 300 mm					
	(d) 400 mm					
	iv. Which of the following is NOT a common hazard in confined spaces?	1	2	9	3	2
	(a) Toxic gases					
	(b) High noise levels					
	(c) Engulfment					
	(d) Restricted entry/exit					
	v. What is the first step in ensuring safety during manual material handling?	1	1	11	3	2
	(a) Wearing gloves					
	(b) Assessing the weight and size of the load					
	(c) Using a forklift					
	(d) Checking the weather conditions					

P.T.O.

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vi.	What safety precaution is necessary when using a concrete mixer?	1	1	5	3	2
	(a) Adding water before cement					
	(b) Using gloves to handle the drum					
	(c) Ensuring the mixer is on a stable and level surface					
	(d) Operating the mixer at full capacity					
vii.	Contract labourers are entitled to wages:	1	1	5	3	2
	(a) Only at the discretion of the contractor					
	(b) Equal to the workers directly employed by the principal employer for similar work					
	(c) Lesser than regular workers					
	(d) None of the above					
viii.	The license granted to a contractor under the Act is valid for:	1	2	2	2	2
	(a) One year					
	(b) Two years					
	(c) Five years					
	(d) As specified in the license					
ix.	Under the Building and Other Construction Workers Act, registration of workers is required to be done by:	1	2	2	2	2
	(a) The Central Government					
	(b) The Building and Construction Workers Welfare Board					
	(c) The respective employers					
	(d) The State Government					
x.	Which of the following is a general safety provision under the Building and Other Construction Workers Act?	1	2	2	2	2
	(a) Workers must wear safety helmets at all times					
	(b) Employers must provide workers with free transportation to the work site					
	(c) Workers must not be paid until safety conditions are met					
	(d) No safety measures are needed for workers employed in low-risk jobs					

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Q.2	i.	Describe the significance of the construction industry in economic development and its impact on society.	4	3	1	2	1
	ii.	What are human factors? How do they influence safety management in construction?	6	2	3	2	2
OR	iii.	Analyze the relationship between ergonomics, productivity, and worker satisfaction in construction.	6	3	7	2	1
Q.3	i.	Describe the safety precautions necessary during excavation work.	2	1	7	2	2
	ii.	Explain the key safety considerations when working with scaffolding and ladders.	8	2	7	2	2
OR	iii.	What are the guidelines for handling and storing explosives in blasting operations?	8	1	11	2	2
Q.4	i.	Describe the hazards associated with improper material handling on construction sites.	4	3	3	3	1
	ii.	Discuss the importance of load testing and regular inspections in maintaining the safety of lifting equipment.	6	2	6	3	1
OR	iii.	What are the safety practices for operating pneumatic and hydraulic tools in construction work?	6	1	6	3	2
Q.5	i.	Define the term 'Contractor' as per the Contract Labour (R&A) Act.	3	1	8	5	1
	ii.	Explain the procedure for registration of establishments employing contract labour under the Act.	7	1	8	5	1
OR	iii.	List and explain the welfare facilities that the principal employer must provide for contract labour as per the Act and Central Rules.	7	1	10	5	1

**Marking Scheme**  
**FT3EL13 (T) Safety in Construction (T)**

Q.1	i)	b) Non-compliance with safety protocols	1
	ii)	b) Stress and fatigue	1
	iii)	c) 300 mm	1
	iv)	b) High noise levels	1
	v)	b) Assessing the weight and size of the load	1
	vi)	c) Ensuring the mixer is on a stable and level surface	1
	vii)	b) Equal to the workers directly employed by the principal employer for similar work	1
	viii)	d) As specified in the license	1
	ix)	d) The State Government	1
	x)	a) Workers must wear safety helmets at all times	1
Q.2	i.	Describe the significance of the construction industry in economic development and its impact on society. - 2 points	2
	ii.	What are human factors, elaborate factors how do they influence safety management in construction?	3
	OR iii.	Analyze the relationship between ergonomics, productivity, and worker satisfaction in construction. atleast 6 points on each	6
Q.3	i.	Write the safety precautions necessary during excavation work.	2
	ii.	Explain the key safety considerations when working with scaffolding and ladders.	8
	OR iii.	What are the guidelines for handling and – 4 marks Storing explosives in blasting operations? – 4 marks	8

Q.4	i.	Describe the hazards associated with improper material handling on construction sites. In details about whole site	4
	ii.	Discuss the importance of load testing – 3 marks Regular inspections in maintaining the safety of lifting equipment. - 3 Marks	6
OR	iii.	What are the safety practices for operating pneumatic – 3 Marks hydraulic tools in construction work? – 3 Marks	6
Q.5	i.	Define the term 'Contractor' as per the Contract Labour (R&A) Act.	3
	ii.	Explain the procedure for registration of establishments employing contract labour under the Act in details.	7
OR	iii.	List and explain the welfare facilities that the principal employer must provide for contract labour as per the Act and Central Rules.	7
Q.6	i.	Critically evaluate the penalties prescribed under the Building & Other Construction Workers Act, 1996 for non-compliance.	5
	ii.	Explain the process of registration for construction workers and the benefits they are entitled to under the Building & Other Construction Workers Act.	5
	iii.	Discuss the importance of the Building & Other Construction Workers (RE & CS) Act, 1996, and its impact on the welfare of construction workers.	5

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