



Name: Enrolment No:		
UNIVERSITY OF PETROLEUM AND ENERGY STUDIES End Semester Examination, December 2021		
Course Name: Safety in Construction Programme: B Tech- Fire & Safety Engineering Course Code: HSFS 3005		Semester: V Time: 03 Hours Max. Marks: 100
SECTION A		
1. Each Question will carry 4 Marks 2. Write only the short answers.		
Sr. No.	Question	CO
Q 1	Explain the direct cost with an example.	CO1
Q 2	Write short notes on medical facilities at construction projects.	CO1
Q 3	List out the various component of scaffolds.	CO1
Q 4	Enlist the challenges while working with confined space.	CO2
Q 5	Recommend engineering control measure for minimizing risk due to demolition activities.	CO2
SECTION B		
Each question will carry 10 marks		
Q 6	Correlate workers migration for a probable cause to safety culture degradation.	CO3
Q 7	Explain the bail out procedure. Based on your learning, suggest safety measures required while working with heavy machineries.	CO2
Q 8	Discuss cofferdams and their types. List out the general safety measures while executing construction activities in or above water.	CO1
Q 9	Based on analytical review of manual material handling work activities and associated risk, create safety inspection checklist for manual material handling work. OR 	CO5
Being an expert, evaluate the safe system of work for the activities shown above.		

SECTION C

1. Each Question carries 20 Marks.

2. Instruction: Write long answer.

Q 10 Being an expert, review the condition of a lifting activity as given below and do the detailed hazard identification and risk assessment for this activity:

Nature of work: Construction

Activity: Lifting of I- Girder of 25 MT

Other details:

- i. The lifting activity is to be done with the help of (a) One crane (b) Two or more than two cranes
- ii. I Girders are to be placed on the columns casted at the edge of canal.

OR



Create standard operating procedure for reinforcement work activities (as shown above)

CO4

Q 11 Construction planning includes the salient features of safety aspect considered during execution of work. Explain in detail of safety aspects of construction planning along with the role of structural safety engineer.

CO3