

Name:	
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2019

Course: Safety in Construction	Semester: II
Programme: M Tech- HSE/ HSE spl. With DM	Max. Marks: 100
Course Code: MEEG 742	Time: 03 hrs.

Instructions:

SECTION A

S. No.	Question	Marks	CO
Q 1	List out various control measures suggested for deep excavation work.	4	CO1 CO2
Q 2	Name various blasting accessories used in blasting operation.	4	CO2
Q 3	List out the basic types of accidents in civil engineering construction projects.	4	CO1
Q 4	Assessing the condition of workplace and nature of injuries, highlight the human factors leading to unsafe situation in safety at workplace.	4	CO4
Q 5	Based on your learning, analyze how safety is the responsibility of everyone?	4	CO5

SECTION B

Q 6	Based on your learning, appraise your concern over various aspects that might be a milestone in improving safety in construction industry.	10	CO1 CO4
Q 7	Identify the need of legal provisions in construction industry and analyze its condition for applicability and effectiveness in construction safety.	10	CO2 CO5
Q 8	List out various risk associated due to confined space and discuss their control measures.	10	CO1 CO2
Q 9	Review the requirements of special provision as listed in BOCW. OR One deep excavation is planned adjacent to a river where adequate safety control measures are to be required. Analyze the site condition and prepare detail work procedures for the same with valid comment.	10	CO1 CO3 CO5

SECTION-C

Q 10	Construction planning includes the salient features of various safety aspect considered during execution. Explain in detail the various safety aspects considered in construction planning.	20	CO3
Q 11	List out the various hazards encountered during working at height activities. Prepare a qualitative risk assessment for roof slab casting operation (12 mtr from ground) and highlight significant risk with their existing and recommended control measures. OR Brief of mechanical lifting. Discuss the lifting procedure in detail and highlight major challenges encountered during heavy lifting at workplace.	20	CO2 CO4 CO5

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SECTION A

S. No.	Question	Marks	CO
Q 1	Explain the cost of safety and its advantages.	4	CO1 CO2
Q 2	Suggest suitable control measure for blasting operation.	4	CO2
Q 3	List out the causes of deep trenching accidents.	4	CO1
Q 4	Enumerate cofferdams and name its types.	4	CO4
Q 5	Based on your learning analyze how safety is the responsibility of everyone?	4	CO5

SECTION B

Q 6	Give your insight over role of construction safety training and its need improving safety at work place.	10	CO1 CO4
Q 7	Justify the need of legal provisions applicable to safety in construction. Highlight a few health Safety & welfare measures applicable to construction industry.	10	CO2 CO5
Q 8	Brief of hydraulic systems & tools. Suggest safety control measure while using hydraulic systems & tools based on their operational difficulty.	10	CO1 CO2
Q 9	<p>Explain the dockworkers act. List out the important provisions related to health safety environment & welfare as listed in dockworkers act. Also, discuss the role & responsibility of dock inspector.</p> <p style="text-align: center;">OR</p> <p>One deep excavation is planned adjacent to a river where adequate safety control measures are to be required. Analyze the site condition and prepare detail work procedures for the same with valid comment.</p>	10	CO1 CO3 CO5

SECTION-C

Q 10	Construction planning includes the salient features of various safety aspect considered during execution. Explain in detail the various safety aspects considered in construction planning.	20	CO3
Q 11	<p>Explain in detail about scaffolds and its types. Prepare a safety inspection checklist for scaffolding work.</p> <p style="text-align: center;">OR</p> <p>A load of 200 MT is to be lifted which is adjacent to a river. Explain in detail of the lifting plan and procedure to lift this 200 MT load if the lifting is to be done with the application of-</p> <p>(a) Single crane (b) More than one crane</p>	20	CO4 CO5