

<b>Name:</b>	
<b>Enrolment No:</b>	

**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**  
**End Semester Examination, December 2018**

<b>Course: Safety in Construction</b>	<b>Semester:</b>
<b>Programme: B Tech- Fire &amp; Safety Engineering</b>	<b>Max. Marks: 100</b>
<b>Time: 03 hrs.</b>	<b>Course Code: 311</b>
<b>Instructions:</b>	

**SECTION A**

S. No.	Question	Marks	CO
Q 1	Brief of excavation and highlight control measures for deep excavation.	4	CO1 CO2
Q 2	Name various blasting accessories used in blasting operation.	4	CO2
Q 3	List different types of accidents in civil engineering construction projects.	4	CO1
Q 4	Name all different humans factors that contribute to the unsafe situation in safety.	4	CO4
Q 5	Based on your learning analyze how safety is the responsibility of everyone?	4	CO5

**SECTION B**

Q 6	Being a safety professional, List out all various aspects that helps in improving safety in construction industry.	10	CO1 CO4
Q 7	Based on your learning justify the need of legal provisions applicable to safety in construction.	10	CO2 CO5
Q 8	List out various risk associated with confined space and discuss their control measures.	10	CO1 CO2
Q 9	<p>Brief of dockworkers act. Name important provisions related to health safety environment &amp; welfare measures as listed in dockworkers act. Also, discuss the role &amp; responsibility of dock inspector.</p> <p style="text-align: center;"><b>OR</b></p> <p>One deep excavation is planned adjacent to a river where adequate safety control measures are required. Based on your learning suggest safety control measures for proposed excavation and justify its need.</p>	10	CO1 CO3 CO5

**SECTION-C**

Q 10	Construction planning includes salient features of safety aspect considered during execution of work. Explain in detail safety aspects of 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;"><b>OR</b></p> <p>Brief of mechanical lifting. Discuss lifting procedure in detail and highlight major challenges encountered during heavy lifting at workplace.</p>	20	CO2 CO4 CO5

<b>Name:</b>	
<b>Enrolment No:</b>	

**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**  
**End Semester Examination, December 2018**

<b>Course: Safety in Construction</b>	<b>Semester:</b>
<b>Programme: B Tech- Fire &amp; Safety Engineering</b>	<b>Max. Marks: 100</b>
<b>Time: 03 hrs.</b>	<b>Course Code: 311</b>
<b>Instructions:</b>	

**SECTION A**

S. No.	Question	Marks	CO
Q 1	Enumerate cost of safety and its advantages.	4	CO1 CO2
Q 2	Suggest suitable control measure for blasting operation.	4	CO2
Q 3	List out various 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	Based on your learning justify the need of legal provisions applicable to safety in construction.	10	CO2 CO5
Q 8	Brief of hydraulic system & tools. Suggest safety control measure while using hydraulic systems & tools based on their operational difficulty.	10	CO1 CO2
Q 9	Human factors plays important role in safety management system implementation at work site. Based on your learning discuss the role of human factors in construction safety management.  <p style="text-align: center;"><b>OR</b></p> One deep excavation is planned adjacent to a river where adequate control measures are required. Based on your learning suggest control measures for this excavation and justify its need.	10	CO1 CO3 CO5

**SECTION-C**

Q 10	Construction planning includes salient features of safety aspect considered during execution of work. Explain in detail safety aspects of construction planning.	20	CO3
Q 11	List out various hazards available with working at height activities. Prepare a qualitative risk along assessment for roof slab casting operation (12 mtr from ground) and highlight significant risk with existing and recommended control measures.  <p style="text-align: center;"><b>OR</b></p> A load of 200 MT is to be lifted, that is kept adjacent to a canal. Explain in detail of lifting plan and procedure to lift 200 MT load if the lifting is to be done with the help of- (a) Single crane (b) More than one crane	20	CO4 CO5