


Name:	 UPES UNIVERSITY WITH A PURPOSE
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2020

Course: HSE in Power Industry	Semester: VIII
Program: B. Tech- PSE & EL	Time 03 hrs.
Course Code: PSEG 481	Max. Marks: 100
Instructions:	

SECTION A

S. No.		Marks	CO
Q 1	Safety management during construction phase aims at _____ number of accidents.	5	CO1
Q 2	With reference to the 'Hazard Control Methods' at a building construction site having 5000 workers _____ is the minimum number of 'Safety Officers' required.	5	CO1
Q 3	As per Heinrich, _____ is the ratio between Direct Cost to Indirect Cost of an Accident.	5	CO1
Q 4	The protection of an Electric Sub-station of capacity 5 MVA or more from Electric Fire minimum _____ number of 'Gas Masks' are required to be made available.	5	CO2
Q 5	For ' Electric Shocks ' prevention _____ and _____ are the most common methods.	5	CO2
Q 6	Two of the most common methods for the control of 'Risk' are _____ and _____.	5	CO2

SECTION B

Q 7	Explain the 5 major steps involved during 'Hazard Identification & Risk Assessment (HIRA)' method adopted under Risk Management in a Thermal Power Plant (TPP).	10	CO3
Q 8	Explain the operation of the following 'Air Pollution Control' system(s) along with their specific application in a Thermal Power Plant: 1) Venturi Scrubber 2) Electro-static Precipitator (ESP)	10	CO4
Q 9	Explain 5 different types of 'Hazardous Confined Spaces' and their remedial measures which are required to be taken during the Operation & Maintenance of a Power Plant.	10	CO3
Q 10	Explain the following terms: 1) PPE 2) PFAS 3) Scaffold 4) Flash Point 5) DCP Fire Extinguishers	10	CO2

Q 11	A) Explain two most often observed ' Health Hazards ' during TPP Construction. OR B) Discuss two most effective ' Hazard Control Methods ' adopted during TPP Construction.	10	CO3
SECTION-C			
Q 12	A) Explain Foam based fire protection system used in a Thermal Power Plant. OR B) Explain Spray Water based fire protection system used in a Thermal Power Plant.	20	CO4