

Name:
Enrolment No:



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

Course: HSE for Power Industry
Program: B. Tech- PSE & EL
Course Code: PSEG 481

Semester: VIII
Time 03 hrs.
Max. Marks: 100

Instructions:

SECTION A

S. No.		Marks	CO
Q 1	Give the full form of ELCB used during Plant construction for all temporary electrical installations.	5	CO1
Q 2	With reference to the 'Hazard Control Methods' at a building construction site having 10000 workers, _____ is the minimum number of 'Safety Officers' required.	5	CO1
Q 3	The three elements of the 'Fire Triangle' w.r.t propagation of fire includes: 1) _____ 2) _____ 3) _____	5	CO1
Q 4	Enumerate any two devices used in a Pressure Vessel (like Boiler Drum) as a safety measure during high-pressure condition for the protection of Boiler Operator.	5	CO2
Q 5	Give the full form of the following qualitative Risk Assessment Techniques: 1) HAZOP 2) FMEA	5	CO2
Q 6	Give the full form of the following Hazard Identification Technique: 1) ETA 2) FTA	5	CO2

SECTION B

Q 7	Explain the following terms w.r.t Thermal Power Plant (TPP) Risk Management: 1) Hazard Identification 2) Risk Assessment 3) Control Measure & implementation 4) Monitor & Review	10	CO3
Q 8	Explain the operation of the following Air Pollution Control equipment used in TPP: 1) Cyclone Separator 2) Fabric Filters	10	CO4

Q 9	Compare & contrast between 'Effluent Treatment Plant (ETP)' and 'Sewage Treatment Plant (STP). List the three major source of effluent in TPP.	10	CO3
Q 10	Explain the following terms TPP- Effluent Management System: 1) BOD 2) COD 3) TOC 4) TDS 5) ETP	10	CO2
Q 11	A) Enlist four most common ' Health Hazards ' observed during TPP Operation . OR B) Enlist four most common ' Health Hazards ' observed during TPP Maintenance .	10	CO3
SECTION-C			
Q 12	A) Explain Hydrant fire protection system used in a Thermal Power Plant. OR B) Explain Inert Gas fire protection system used in a Thermal Power Plant.	20	CO4