

Name:
Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
Online End Semester Examination, December 2020

Course: Safety in Engineering Industry
Program: M.Tech (HSE)+ M.Tech (HSE-DM)
Course Code: HSFS 8002

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

SECTION A

Each Question will carry 5 marks

S. No.	Question	CO
Q 1	List out the safety precaution to be taken in Lathe machine	CO1
Q 2	Explain the principles of guarding	CO2
Q 3	Recall the hazards in soldering operation with relevant to materials used.	CO1
Q 4	Describe the hazards of power press machine operation	CO2
Q 5	Discuss the hazards in paint shop.	CO2
Q 6	List the color coding of any 6 industrial gas cylinders	CO1

SECTION B

- Each Question will carry 10 marks**
- Write short/Brief notes**

Q 7	Explain the structure of Acetylene cylinder, list hazards in handling and filling of acetylene cylinder.	CO2
Q 8	You are a welding specialist who is involved in welding pipes laid for petroleum transfer. Every time after welding you have to check the quality of weld, apply a suitable pressure technique to test the pipe elaborating its hazards and safety measures in detail.	CO3
Q 9	List the safety measures to be followed while operating Jointer machine (wood working) and grinding machine (metal working).	CO1
Q 10	Consider you are working in ship building industry, you want to repaint a ship which has some tough coating, solve the situation by opting relevant technique of surface preparation giving more impact on hazards and safety measures of the technique.	CO3
Q 11	Explain Interlock guard, restraint device, pull back device, safety mats with their possible application. (OR) Describe the hazards in electroplating process and the relevant safety measures to be followed.	CO2

SECTION-C

- Question carries 20 marks**
- Instruction: Write long answer**

Q 12	Consider you are working in a NDT facility as a safety officer. Prepare a safety program on how will you detect, measure, control the ionized radiation in your facility consider you are using gamma ray radiation. (OR) Foundry operations play a very crucial role in manufacturing sector though they possess lot of hazards. Analyze various hazards in foundry process and contrast the various safety measures to be followed.	CO4
------	---	-----