

Name:			
Enrolment No:			
UPES End Semester Examination, December 2023			
Programme Name: M.TECH-HSE		Semester : III	
Course Name : Safety in Engineering Industry		Time : 03 hrs.	
Course Code : HSFS 8002		Max. Marks: 100	
Nos. of page(s) : 1			
Instructions: Read the question properly and give the most relevant answer.			
SECTION A (5Qx4M=20Marks)			
S. No.		Marks	CO
Q 1	Explain the hazards in metal drilling machine	4	CO1
Q 2	Differentiate guards and guarding devices	4	CO1
Q 3	Recall the concept of importance of flashback arrestor	4	CO2
Q 4	Discuss the hazards in operation of 3D printing machine	4	CO2
Q 5	Explain the hazards and its control measures of paint shop	4	CO3
SECTION B (4Qx10M= 40 Marks)			
Q 6	Explain the hazards in foundry operation and its possible control measures	10	CO2
Q 7	Explain different types of injuries caused in engineering industry with an example of each.	10	CO4
Q 8	Prepare safe working procedure for the any 2 metal working machines in detail.	10	CO3
Q 9	List the hazards and prepare a write-up on any one of the forming processes of your choice. (OR) Analyze the blasting process, its hazards and its control measures in detail.	10	CO1
SECTION-C (2Qx20M=40 Marks)			
Q 10	Analyze the hazards and control measures in welding process discussing gas welding, resistance welding and soldering in detail. (OR) Prepare a writeup on different types of guards and guarding devices with an example of its application.	20	CO4
Q11	Your industry is using Ionizing radiation-based NDT to analyze the quality of the products. Understand the hazards in the apply the control strategies to limit the exposure.	20	CO3