


Name:			
Enrolment No:			
UPES End Semester Examination, December 2024			
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) : 2			
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 lathe machine	4	CO2
Q 2	Recall the application of flash back arrestor	4	CO1
Q 3	Differentiate restraint device and pull back device	4	CO2
Q 4	Differentiate draw-in and entanglement	4	CO2
Q 5	Explain the principles of guarding.	4	CO3
SECTION B (4Qx10M= 40 Marks)			
Q 6	Explain the hazards in rolling operation and provide the relevant control measures.	10	CO1
Q 7	Classify different types of machinery hazards and injuries caused in an engineering industry.	10	CO3
Q 8	Prepare safe working procedure for wood planar and table saw machines in detail.	10	CO3
Q 9	Analyze and discuss the different types of guards and guarding devices in detail. (OR) Analyze the hazards in heat treatment process, and its control measures in detail.	10	CO2
SECTION-C (2Qx20M=40 Marks)			
Q 10	Explain the hazards and control measures of the following in detail a) Power press b) 3D Printing operation c) Furnace operation d) Milling machine operation (OR) Pressure testing is useful in many industries. Analyze the pneumatic testing and hydrostatic testing, its standard practices, consequence of wrong procedures in detail	20	CO4

Q11	Explain the hazards and control measures in welding process discussing gas welding, resistance welding and soldering in detail.	20	CO3
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