Name:	![UPES logo] UPES UNIVERSITY OF TOMORROW
Enrolment No:	

UPES
End Semester Examination, December 2023

Programme Name: M.Tech-HSE Semester   : I
Course Name   : Behaviour Based Safety Time   : 03 hrs
Course Code   :   HSFS 7004 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	Recall the terms a) Lost time injury b) near miss	4	CO1
Q 2	Explain safety sampling and safety survey.	4	CO2
Q 3	List the duties of safety officer as per factories act.	4	CO1
Q 4	Explain the importance of safety training.	4	CO2
Q 5	Prepare a short safety pledge for your industry	4	CO3

SECTION B
(4Qx10M= 40 Marks)

Q 6	Discuss Incident recall technique and its importance	10	CO3
Q 7	Analyze the importance of work permit system and prepare a confined space entry permit system.	10	CO4
Q 8	Summarize the importance of behavior-based safety and how it differs from traditional safety	10	CO2
Q 9	Consider there is a strike by the laborers in your industry due to multiple fatalities and you are appointed to convince the labors to make them come to work. How will you convince them. Prepare a list of your points considering the real time scenarios. (OR) Prepare a writeup on any 2-accident causation theories of your choice in detail.	10	CO3

SECTION-C
(2Qx20M=40 Marks)

Q 10	Analyze an industry of your choice and prepare an emergency plan covering all types of possible emergencies giving importance to a war attack	20	CO4
Q11	An organization that manufactures components for the automotive industry is based on a single site and employs 850 people. The table below provides recent accident data recorded at the company.	20	CO3

Year	No. of LTI	No. of near misses	Average hours worked	Man days lost due to accidents
2018	12	4	3520	500
2019	10	8	3500	80
2020	10	10	3500	600
2021	10	17	3530	600

Calculate the accident frequency rate, severity rate, and incidence rate for these years.   Also, comment on the safety performance of the organization.

(OR)

Prepare an elaborate BBS implementation strategy for the newly built industry targeting to develop the safety work culture within 2 years.