

Name:			
Enrolment No:			
UNIVERSITY OF PETROLEUM AND ENERGY STUDIES End Semester Examination, December 2022			
Programme Name: M.Tech-HSE		Semester : I	
Course Name : Behavior 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.		Ma rks	CO
Q 1	One of the safety engineers who reduced the risk to “0” and made the workplace 100 % safe is awarded the best safety profession. Comment on the above statement with the proper justification.	4	CO1
Q 2	Explain the terms safety survey and safety inspection.	4	CO1
Q 3	Differentiate behavior and attitude.	4	CO3
Q 4	Discuss the terms active and reactive monitoring.	4	CO3
Q 5	List the OHS policy requirements as per ISO 45001	4	CO2
SECTION B (4Qx10M= 40 Marks)			
Q 6	Explain PDCA cycle in detail.	10	CO2
Q 7	Explain the importance of accident investigation and its necessity in detail	10	CO3
Q 8	Perform a HIRA for the class room you have studied and provide a proper control measure	10	CO3
Q 9	Explain any 2-accident causation theory in detail. (OR) You are a accident investigation expert and appointed to investigate an accident. How will you investigate an accident using 5W1H technique explain with a case study of your choice.	10	CO1
SECTION-C (2Qx20M=40 Marks)			
Q 10	You are planning to use ABC model in your organization prepare a report explaining the concepts of ABC model with example to be submitted to your higher management.	20	CO4

Q11

An organization that manufactures components for the automotive industry is based on a single site and employs 750 people. The table below provide recent accident data recorded at the company.

Year	No. of accidents	No. of near misses	Average hours worked	Days lost due to accidents
2016	10	4	3520	500
2017	12	8	3500	80
2018	12	10	3500	600
2019	15	17	3530	600

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

(OR)

Prepare a disaster management plan for your industry with an example considering a case study.

20

CO2