

P P SAVANI UNIVERSITY

Seventh Semester of B. Tech. Examination
November 2022

SECH4540 Industrial Health & Safety Engineering
Time: 10:00 a.m. To 12:30 p.m.

01.12.2022, Thursday

Maximum Marks: 60

Instructions:

1. The question paper comprises of two sections.
2. Section I and II must be attempted in separate answer sheets.
3. Make suitable assumptions and draw neat figures wherever required.
4. Use of scientific calculator is allowed.

SECTION - I

Q - 1	Discuss the list of Pre-commissioning Documents.	[05]	CO	BTL
Q - 2 (a)	Discuss the basics of reactor safety.	[05]	2	2
Q - 2 (b)	Write about Types of compressed air required in plant.	[05]	1	4

OR

Q - 2 (a)	Explain defects and failure revealed by inspection of for pressure vessels.	[05]	2	2
Q - 2 (b)	Elaborate: Brief about Commissioning Problems.	[05]	2	2
Q - 3 (a)	Write about conditioning monitoring.	[05]	2	3
Q - 3 (b)	Explain the Operation at extremes of pressure and temperature.	[05]	2	2

OR

Q - 3 (a)	Write about non-destructive testing and monitoring methods	[05]	3	5
Q - 3 (b)	Write in details about valves in pipework system.	[05]	2	2
Q - 4	Write briefly on type of reactors.	[05]	1	5

SECTION - II

Q - 1	Discuss: List of Principal protective devices	[05]	2	2
Q - 2 (a)	Brief about Hydrogen storage.	[05]	2	6
Q - 2 (b)	Define Permit to Work system.	[05]	3	4

OR

Q - 2 (a)	Brief about LNG storage.	[05]	1	1
Q - 2 (b)	Write in details about Gas freeing & cleaning of tanks	[05]	2	2
Q - 3 (a)	Write about storage hazard.	[05]	2	2
Q - 3 (b)	Brief about types of storage tanks and vessels for liquids and liquefied gases.	[05]	3	1

OR

Q - 3 (a)	Explain Classification of confined space.	[05]	1	2
Q - 3 (b)	Filling arrangements and connection in view of loading and unloading facilities.	[05]	1	6
Q - 4	Events leading to storage tank failures.	[05]	4	2

CO : Course Outcome Number

BTL : Blooms Taxonomy Level

Level of Bloom's Revised Taxonomy in Assessment

1: Remember	2: Understand	3: Apply
4: Analyze	5: Evaluate	6: Create