

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER– VII (New) EXAMINATION – WINTER 2019****Subject Code: 2173508****Date: 26/11/2019****Subject Name: Safety Health & Environment****Time: 10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

	<b>MARKS</b>
<b>Q.1</b> (a) Define: Hazard, Flash Point, Risk.	<b>03</b>
(b) Discuss Job Safety Analysis in brief.	<b>04</b>
(c) What do you mean by occupational hazards? Explain physical hazards, chemical hazards and biological hazards in detail?	<b>07</b>
<b>Q.2</b> (a) Define: Safety, Ignition, Material Factor.	<b>03</b>
(b) Explain “Fire Triangle” with the help of neat diagram.	<b>04</b>
(c) Discuss Fault tree analysis with the help of neat diagram.	<b>07</b>
<b>OR</b>	
(c) Discuss Event tree analysis with the help of neat diagram.	<b>07</b>
<b>Q.3</b> (a) Define: Unsafe Conditions, Mistakes, Error.	<b>03</b>
(b) What do you understand by ergonomics?	<b>04</b>
(c) Explain HAZOP in detail.	<b>07</b>
<b>OR</b>	
<b>Q.3</b> (a) Define: Unsafe acts, Dangerous occurrence, Accident.	<b>03</b>
(b) Explain appropriate measures to control the hazards associated with noise, repetitive strain and stress?	<b>04</b>
(c) Discuss occupational environment in health.	<b>07</b>
<b>Q.4</b> (a) Discuss hand and arm protection PPEs.	<b>03</b>
(b) What are different type of PPEs.	<b>04</b>
(c) Discuss plant safety inspection in detail?	<b>07</b>
<b>OR</b>	
<b>Q.4</b> (a) Discuss failure mode and effects analysis.	<b>03</b>
(b) What Do you understand PPE? Discuss their importance.	<b>04</b>
(c) Enlist the factors affecting the selection of personal protective Equipment (PPE).	<b>07</b>
<b>Q.5</b> (a) Enlist common cause of work related illness and discuss anyone.	<b>03</b>
(b) Write a note on Industrialization Vs. Accident.	<b>04</b>
(c) Explain the models of accident prevention in detail.	<b>07</b>
<b>OR</b>	
<b>Q.5</b> (a) Discuss the dangers associated with fire.	<b>03</b>
(b) Explain the importance of “Health and Safety” in industries.	<b>04</b>
(c) Explain fundamentals of accident prevention in detail.	<b>07</b>

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