

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI(NEW) – EXAMINATION – SUMMER 2019

Subject Code:2160504

Date:16/05/2019

Subject Name:Pollution Control, Safety & Health Management

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.

	MARKS
Q.1 (a) Explain the following terms: (i) Risk; (ii) Prime mover; (iii) Hazard.	03
(b) Describe the welfare methods to be provided for workers in cement factory.	04
(c) State the various pressure relief devices. Explain any two with neat sketch.	07
Q.2 (a) Explain the main aim of enactment of factories act, 1948.	03
(b) Briefly explain the ingredients of successful safety program.	04
(c) Enlist the various personal protective equipment's and explain their functions.	07
OR	
(c) Discuss the various equipment's used to separate the particulate matters from the effluent gases to control air pollution.	07
Q.3 (a) Explain and justify the need for safety audit.	03
(b) Explain 'process hazard checklist' with a suitable illustration.	04
(c) Mention and explain the different sources and causes of environmental pollution. Explain their effects on human health.	07
OR	
Q.3 (a) Explain the provisions on safety precautions as specified in electricity rules.	03
(b) Write a note on environment audit.	04
(c) State the various types of explosions and explain each in brief.	07
Q.4 (a) Briefly explain the nature of accident process.	03
(b) Briefly discuss about the blast damage resulting from over pressure.	04
(c) Stating the various classes of fire, discuss about the fire extinguishing agents.	07
OR	
Q.4 (a) Explain and justify the need for energy audit.	03
(b) State and explain the factors to be considered while doing environment impact assessment (EIA).	04
(c) State the various types of explosions and explain each in brief.	07
Q.5 (a) Briefly explain event tree analysis for risk assessment.	03
(b) Write a note on offsite disaster management.	04
(c) Discuss about the various types of plume and puff models of dispersion for toxic vapours released into atmosphere.	07
OR	
Q.5 (a) What are the various natural cycles in environment and ecology? State their importance.	03
(b) What are the various health provisions mentioned in factories act, 1948?	04
(c) Enlist the techniques for hazard identification and explain HAZOP method in detail.	07
