

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER-IV EXAMINATION – WINTER 2025****Subject Code:3141310****Date:18-11-2025****Subject Name:Occupational Health & Safety****Time:02:30 PM TO 05:00 PM****Total Marks:70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

- Q.1** (a) Describe the functions of health, safety and environment in an industry. **03**
(b) Explain the various routes of entry of toxicants in to the human body. **04**
(c) Give the classification of various occupation health hazards. **07**

- Q.2** (a) Discuss any three properties of hazardous material. **03**
(b) Define TLV. Also explain the significance of TLV. **04**
(c) Explain the constituents of ergonomics. **07**

OR

- (c) Explain the applications of ergonomics for safety & health, **07**

- Q.3** (a) Draw & explain the pyramid of fire. **03**
(b) Discuss the requisite characteristics of personal protective equipment. **04**
(c) What is explosion and describe the classification of explosion. **07**

OR

- Q.3** (a) Enlist the factors contributing to fire. **03**
(b) Give the classification of PPEs. **04**
(c) With the help of table explain classification of fire and extinguishers. **07**

- Q.4** (a) Describe the six scientific functions of safety management. **03**
(b) Explain the various reasons for accident prevention. **04**
(c) List out and explain the common electrical hazards. **07**

OR

- Q.4** (a) Discuss the various factors impending safety. **03**
(b) Describe the 5 E's for accident prevention. **04**
(c) Discuss the effects of electrical parameters on human body. **07**

- Q.5** (a) Write a short note on on-site emergency plan. **03**
(b) Define pneumoconiosis. List out the various types of pneumoconiosis. **04**
(c) Differentiate between: (i) PHA and FMES (ii) HAZAN and HAZOP **07**

OR

- Q.5** (a) Write a short note on preliminary hazard analysis. **03**
(b) Describe symptoms, diagnosis, treatment and prevention of anthracosis disease. **04**
(c) Explain the procedure to carry out HAZOP with flow diagram. **07**

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER-IV (NEW) EXAMINATION – WINTER 2024****Subject Code:3141310****Date:22-11-2024****Subject Name: Occupational Health & Safety****Time:02:30 PM TO 05:00 PM****Total Marks:70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

		Marks
Q.1	(a) Discuss the objectives of Occupation health and safety.	03
	(b) Define: Risk, Hazard, accident, safety	04
	(c) Describe the functions of Health, Safety and Environment in an Industry.	07
Q.2	(a) What are the Factors Impending Safety?	03
	(b) Explain the various routes of entry of toxicants in to the human body.	04
	(c) Describe symptoms, diagnosis, treatment and prevention of following occupations diseases: (i) Silicosis (ii) Byssionosis (iii) Anthracosis (iv) Bagassosis (v) Asbestosis	07
	OR	
	(c) Define Pneumoconiosis List out the various types of Pneumoconiosis.	07
Q.3	(a) Define (i) TLV (ii) Ceiling Limit, (iii) MSDS	03
	(b) Discuss the various agents responsible for occupational diseases.	04
	(c) Discuss application of Ergonomics for safety and health	07
	OR	
Q.3	(a) Discuss the safety measures for electric works.	03
	(b) Write a short note on factors impending safety and Accident prevention.	04
	(c) Explain five E's for accident prevention.	07
Q.4	(a) Draw & explain the pyramid of fire.	03
	(b) Give the classification of PPEs.	04
	(c) With the help of table explain classification of fire and extinguishers.	07
	OR	
Q.4	(a) Explain the effects of electrical parameters on human body.	03
	(b) With the help of table explain classification of fire and extinguishers.	04
	(c) What is explosion and give the classification of explosion.	07
Q.5	(a) Write a short note on: Preliminary Hazard Analysis (PHA)	03
	(b) Discuss Hazard ranking.	04
	(c) Differentiate between : HAZOP & HAZAN	07
	OR	
Q.5	(a) Write down the need of personal protective equipment.	03
	(b) Differentiate between : Fault Tree Analysis (FTA) & Event Tree Analysis (ETA)	04
	(c) Write a short note on Off-Site Emergency Plan.	07

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-IV (NEW) EXAMINATION – WINTER 2023****Subject Code:3141310****Date:19-01-2024****Subject Name: Occupational Health & Safety****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.
4. Simple and non-programmable scientific calculators are allowed.

Marks

- | | | |
|------------|---|-----------|
| Q.1 | (a) What is meant by occupational diseases? Explain any one in detail. | 03 |
| | (b) Define safety management? Give the objectives of safety management. | 04 |
| | (c) Explain the various routes of entry of toxicants in to the human body. | 07 |
| | | |
| Q.2 | (a) State the functions of scientific safety management. | 03 |
| | (b) Define permissible exposure limit, threshold limit value, lethal dose and lethal concentration. | 04 |
| | (c) Explain Accident Causative Factors. | 07 |
| OR | | |
| | (c) What do you mean by the term ergonomics? Explain its Application. | 07 |
| | | |
| Q.3 | (a) Write a short note on factors impending safety and Accident prevention. | 03 |
| | (b) Define: (i) Safety (ii) LD50 (iii) MSDS (iv) EHS | 04 |
| | (c) What is Explosion? Give the Classification of Explosion. | 07 |
| OR | | |
| Q.3 | (a) Discuss the symptoms and precautions of Byssinosis. | 03 |
| | (b) Discuss in detail the effect of electrical parameters on human body. | 04 |
| | (c) Enlist the main safety measures for electric work and explain any two in detail. | 07 |
| | | |
| Q.4 | (a) What is Good House Keeping? | 03 |
| | (b) Describe the significance of Threshold Limit Value (TLV). | 04 |
| | (c) Write a detailed note on Preliminary Hazard Analysis. | 07 |
| OR | | |
| Q.4 | (a) Explain different types of Ventilation. | 03 |
| | (b) List down the five “E” of accident prevention & explain any two in detail | 04 |
| | (c) With the help of table explain classification of fire and related extinguishers. | 07 |
| | | |
| Q.5 | (a) Draw & explain the pyramid of fire. | 03 |
| | (b) Define Pneumoconiosis. Name the various types of Pneumoconiosis. | 04 |
| | (c) Enlist the factors affecting the selection of personal protective Equipment (PPE). | 07 |
| OR | | |
| Q.5 | (a) What do you mean by the terms VCE and BLEVE? | 03 |
| | (b) Differentiate between HAZOP and HAZAN. | 04 |
| | (c) Write a short note: Need of personal protective equipment (PPE). | 07 |

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-IV(NEW) EXAMINATION – WINTER 2022****Subject Code:3141310****Date:15-12-2022****Subject Name:Occupational Health & Safety****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.
4. Simple and non-programmable scientific calculators are allowed.

MARKS

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|------------|--|-----------|
| Q.1 | (a) What is meant by occupational diseases? Explain any one in detail. | 03 |
| | (b) Define permissible exposure limit, threshold limit value, lethal dose and lethal concentration. | 04 |
| | (c) What do you mean by the term ergonomics? Explain its Application. | 07 |
| Q.2 | (a) Define safety management? Give the objectives of safety management. | 03 |
| | (b) Explain the concept & philosophy of safety. | 04 |
| | (c) Explain in detail the routes of entry of Toxic material into Human Body. | 07 |
| | OR | |
| | (c) Enlist the factors affecting the selection of personal protective Equipment (PPE). | 07 |
| Q.3 | (a) What do you mean by the terms VCE and BLEVE? | 03 |
| | (b) List down the five “E” of accident prevention & explain any two in detail. | 04 |
| | (c) Explain Accident Causative Factors. | 07 |
| | OR | |
| Q.3 | (a) Describe the significance of Threshold Limit Value (TLV). | 03 |
| | (b) Define: (i) Safety (ii) LD ₅₀ (iii) MSDS (iv) EHS | 04 |
| | (c) What are the Factors Impending Safety? | 07 |
| Q.4 | (a) Define Pneumoconiosis. Name the various types of Pneumoconiosis. | 03 |
| | (b) Write a brief note on Preliminary Hazard Analysis. | 04 |
| | (c) What is Fire? Give the Classification of Fire in detail. | 07 |
| | OR | |
| Q.4 | (a) Discuss the symptoms and precautions of Byssinosis. | 03 |
| | (b) Write a note on Explosion control devices. | 04 |
| | (c) What is Explosion? Give the Classification of Explosion. | 07 |
| Q.5 | (a) What is Good House Keeping? | 03 |
| | (b) Discuss in detail the effect of electrical parameters on human body. | 04 |
| | (c) Enlist the main safety measures for electric work and explain any two in detail. | 07 |
| | OR | |
| Q.5 | (a) Enlist the types of emergency and define any one of them. | 03 |
| | (b) Explain the main objectives of major hazard control system. | 04 |
| | (c) Discuss in brief HAZAN. | 07 |
