

B. TECH.
(SEM - IV) THEORY EXAMINATION 2018-19
HEALTH SAFETY AND ENVIRONMENT

Time: 3 Hours

Total Marks: 70

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 2 x 7 = 14
- (a) Describe various classes of PPE's.
 - (b) Explain the need for safety.
 - (c) Distinguish hazard from risk.
 - (d) What is fire triangle?
 - (e) Give classification of accidents.
 - (f) Discuss significance of environmental health and safety.
 - (g) What do you understand by safe work environment?

SECTION B

2. Attempt any *three* of the following: 7 x 3 = 21
- (a) Explain fire sprinkler. Describe various types of fire sprinklers.
 - (b) Explain HAZOP study and its usefulness.
 - (c) Define the word toxicology and describe in detail the relationship between dose and toxicity.
 - (d) Describe various types of fire alarms.
 - (e) Explain in detail the fire-fighting requirements as per National Building Code.

SECTION C

3. Attempt any *one* part of the following: 7 x 1=7
- (a) Explain the various fire precautions and fire protections. Elaborate the importance of fire certificate.
 - (b) Define additional safety requirements are needed in the case of factory having hazardous conditions.
4. Attempt any *one* part of the following: 7 x 1= 7
- (a) Write detail note on;
 - (i) Transportation & storage of chemicals
 - (ii) Electrical safety program
 - (b) Define explosive and discuss the classification of explosives.
5. Attempt any *one* part of the following: 7 x 1= 7
- (a) Discuss various methods for control of Hazard.
 - (b) Explain risk assessment matrix.
6. Attempt any *one* part of the following: 7 x 1= 7
- (a) What are the basic principles in industrial safety for chemical accidental hazard?
 - (b) Describe the benefits of management review in ISO 14001-1996 of Environment Management System for the sustainable development of the organization.
7. Attempt any *one* part of the following: 7 x 1= 7
- (a) Classify hazardous chemicals. Also discuss important features of any two EHS legislations.
 - (b) Describe occupational health and safety management systems as per OHSAS: 18001 standards.