



16772

**BRAINWARE UNIVERSITY****Term End Examination 2024-2025****Programme – B.Tech.(ME)-2021****Course Name – Safety and Occupational Health****Course Code - OEC-ME801B****(Semester VIII)**

Library
Brainware University
398, Ramkrishnapur Road, Barasat
Kolkata, West Bengal-700125

Full Marks : 60**Time : 2:30 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A**(Multiple Choice Type Question)****1 x 15=15**

1. *Choose the correct alternative from the following :*

- (i) Identify the organization which defined occupational health as the adaptation of work to man and of each man to his job.
 - a) WHO
 - b) ILO
 - c) OSHA
 - d) UN
- (ii) Choose the appropriate Personal Protective Equipment (PPE) for chemical industries.
 - a) Safety goggles and gloves
 - b) Sports shoes and jacket
 - c) Woolen gloves and earmuffs
 - d) Cotton shirts and sandals
- (iii) Identify the act that regulates hazardous processes in India.
 - a) Environment Protection Act, 1986
 - b) Industrial Disputes Act, 1947
 - c) Contract Labour Act, 1970
 - d) Trade Unions Act, 1926
- (iv) Apply the most effective technique of accident prevention.
 - a) Hazard control
 - b) Disregarding safety training
 - c) Encouraging overtime
 - d) Eliminating PPE
- (v) Recommend an effective way to promote workplace safety.
 - a) Conducting regular safety drills
 - b) Reducing training
 - c) Encouraging shortcuts
 - d) Avoiding safety policies
- (vi) Differentiate between Class A and Class B fires.
 - a) Class A involves flammable liquids, and Class B involves ordinary combustibles
 - b) Class A involves ordinary combustibles, and Class B involves flammable liquids
 - c) Both involve metals
 - d) Neither involves paper
- (vii) Choose the most critical factor in fire inspection.
 - a) Proper documentation
 - b) Ignoring fire risks
 - c) Lack of safety training
 - d) Allowing fire hazards
- (viii) Define occupational health and identify its main focus.
 - a) Protection of employees only
 - b) Ensuring workplace hygiene only

- c) Promotion and maintenance of physical, mental, and social well-being of workers
- d) Safety measures for hazardous industries
- (ix) Evaluate the key component of an occupational safety program.
 - a) Employee motivation programs
 - b) Risk assessment and hazard control
 - c) Enhancing office aesthetics
 - d) Organizing recreational activities
- (x) Define the field of study focusing on controlling workplace environmental factors.
 - a) Ergonomics
 - b) Industrial hygiene
 - c) Marketing management
 - d) Public relations
- (xi) Identify the role of abstracts and notices in workplace safety.
 - a) Communicating critical safety information to workers
 - b) Serving as decorative items in the workplace
 - c) Acting as legal documents only for employers
 - d) Increasing employee workload
- (xii) Identify an essential safety measure in electrical installations.
 - a) Ensuring proper grounding and insulation
 - b) Using live wires without protection
 - c) Skipping electrical safety inspections
 - d) Ignoring voltage ratings
- (xiii) Determine the main goal of safety education and training.
 - a) Enhancing hazard awareness
 - b) Reducing employee benefits
 - c) Increasing production speed
 - d) Eliminating safety inspections
- (xiv) Identify the Fatal Accidents Act, 1855 supports legal claims for fatal workplace incidents
 - a) Preventing fatal workplace accidents
 - b) Providing legal remedy for death due to negligence
 - c) Insuring workers against fatal injuries
 - d) Regulating hazardous industries
- (xv) Illustrate the benefits provided under The Employees' State Insurance Act, 1948.
 - a) Only in case of fatal accidents
 - b) Including medical, disability, and maternity benefits
 - c) Limited to government employees
 - d) Only after 10 years of service

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Apply the concept of industrial safety development to suggest improvements in workplace safety. (3)
3. Use the principles of occupational health to assess a workplace for potential hazards. (3)
4. Describe the responsibilities of fire prevention authorities in industrial safety. (3)
5. Outline the importance of personal protective equipment (PPE) in occupational safety. (3)
6. Design a new framework for industrial safety that integrates modern safety techniques. (3)

OR

Develop an occupational health strategy that minimizes workplace hazards in heavy industries. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Identify the major developments in occupational health and safety in India and compare them with international standards. (5)
8. Describe the importance of fire drills and evacuation procedures in fire emergency preparedness. (5)
9. Summarize the responsibilities of employers and employees in fire prevention and emergency response. (5)
10. Describe the key features of occupational welfare programs and their benefits. (5)
11. Compare the effectiveness of different occupational health and safety programs in industrial workplaces. (5)

12. Formulate a workplace wellness plan that enhances both physical and mental health. (5)
- OR
- Construct an occupational health and safety training module for new employees. (5)

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