

No. of Printed Pages : 5

**MIS-023**

**P. G. CERTIFICATE IN INDUSTRIAL  
SAFETY/POST GRADUATE DIPLOMA  
IN INDUSTRIAL SAFETY  
(PGCINDS/PGDINDS)**

**Term-End Examination**

**December, 2022**

**MIS-023 : SAFETY IN CONSTRUCTION INDUSTRY**

*Time : 3 Hours*

*Maximum Marks : 70*

---

**Note :** *Question No. 1 is compulsory. Attempt any  
five more questions from the remaining  
questions (Q. No. 2 to 8).*

---

---

1. (A) Choose the most appropriate answer from the given options :  $5 \times 2 = 10$
- (i) According to Domino theory, 88% of all accidents are caused by :
- (a) acts of God
  - (b) unsafe conditions
  - (c) unsafe acts of people
  - (d) natural forces

**P. T. O.**

- (ii) PPE stands for :
- (a) Public protection equipment
  - (b) Personal protective equipment
  - (c) Project proposal evaluation
  - (d) Project progress evaluation
- (iii) Which class of respiratory equipment provides protection against dust to a limited extent but no protection against asbestos fibres and silica dust ?
- (a) Particle filter class P<sub>1</sub>
  - (b) Particle filter class P<sub>2</sub>
  - (c) Particle filter class P<sub>3</sub>
  - (d) Particle filter class P<sub>4</sub>
- (iv) The process of providing temporary supports in a trench to avoid its collapse is called :
- (a) Trenching
  - (b) Scaffolding
  - (c) Shoring
  - (d) Shotcreting

(v) A safety harness is an equipment which is generally used when a worker is :

- (a) working in a tunnel
- (b) doing the plastering work on a ground floor
- (c) painting an outside wall of a building at height of 20 m
- (d) excavating the foundation of a residential building

(B) Answer the following questions :  $5 \times 2 = 10$

- (i) Enlist any *four* Acts/Regulations prevailing in India related to safety at workplace.
- (ii) Write the sequence of accident factors.
- (iii) Define stock ladder.
- (iv) Enlist the potential sources of air pollution at construction site.
- (v) Enlist personal protective equipments.

2. (a) Describe the essentials of a good training. 5
- (b) Discuss the different types of training. 5
3. (a) Discuss various factors to be considered prior to commencing roof demolition. 5
- (b) Describe the waste management process at a construction site. 5
4. (a) What are cranes ? Describe different types of cranes in brief. 5
- (b) Discuss various safety measures to be taken while using pulleys. 5
5. What are different types of accidents which may occur while working at roof tops ? What measures may be taken to avoid these accidents ? 10
6. Describe air monitoring requirements in underground works. 10
7. (a) What is ventilation ? Discuss different types of ventilation. 5
- (b) Describe accident prevention techniques in brief. 5

8. Write short notes on any *four* of the following :

$$2\frac{1}{2} \times 4 = 10$$

- (a) Multiple causation theory
- (b) Need of safety
- (c) Scaffolding
- (d) Ergonomics of material handling
- (e) Induced collapse