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MIS-023

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

June, 2025

**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 (Q. Nos. 2 to 8).*

B-1145/MIS-023

P. T. O.

1. (A) Choose the most appropriate answer from the given options : $5 \times 2 = 10$

(a) Which one of the following is not an important element for maintaining safety in construction ?

- (i) Membership of Trade Union
- (ii) Management
- (iii) Design Methodology
- (iv) Safety Codes

(b) Which accident causation theory says that “Everyone of any given set of workers has an equal chance of being involved in an accident” ?

- (i) The Domino Theory
- (ii) Multiple Causation Theory
- (iii) The Pure Chance Theory
- (iv) The Energy Transfer Theory

(c) For repair works at high level of multistoreyed buildings needle scaffolding is preferred :

- (i) As it is more stable.

- (ii) As it looks better.
 - (iii) As it will not obstruct traffic at ground level.
 - (iv) None of the above
- (d) PPE stands for :
- (i) Personal Protection Equipment
 - (ii) Preferred Protection Equipment
 - (iii) Prohibited Protective Equipment
 - (iv) Private Protective Equipment
- (e) A hazard is :
- (i) The likelihood of a substance, person, activity or process to cause harm
 - (ii) The probability of a substance, person, activity or process to cause harm
 - (iii) The potential of a substance, person, activity or process to cause harm
 - (iv) The prospect of a substance, person, activity or process to cause harm

- (B) Answer the following questions : $5 \times 2 = 10$
- (a) Enlist the classes of respiratory protective equipment.
 - (b) Define blasting.
 - (c) Define tunneling.
 - (d) Enlist any *four* Acts/Regulations prevailing in India related to safety at workplace.
 - (e) Define safety net.
2. (a) Describe the most common causes of accidents in construction industry. 5
- (b) Enlist various accident causation theories and explain any *one* theory. 5
3. (a) Discuss the basic safety measures to be taken in excavation and underground works. 5
- (b) Describe in brief the various methods of tunnel construction. 5
4. What are different types of accidents which may occur while working at roof tops ? What measures may be taken to avoid these accidents ? 10

5. (a) Enlist the commonly used equipments for material handling applications. Describe any *two* in brief. 5
- (b) Discuss various safety measures to be taken by employees regarding the use of cranes. 5
6. What do you understand by risk assessment ? Enlist various steps of risk assessment. Explain any *one* of them. 10
7. (a) What measures may be taken to minimize soil erosion ? 5
- (b) What precautions should be taken before and during demolition work ? 5
8. Write short notes on any *two* of the following : 2×5=10
- (a) Noise and vibration control
- (b) Benefits of proper safety training
- (c) Induced collapse
- (d) Common causes of ladder accidents

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