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**MIS-023**

**POST GRAUDATE CERTIFICATE IN  
INDUSTRIAL SAFETY/POST  
GRADUATE DIPLOMA IN  
INDUSTRIAL SAFETY  
(PGCINDS/PGDINDS)**

**Term-End Examination**

**June, 2023**

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

*Time : 3 Hours*

*Maximum Marks : 70*

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***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 : 5×2=10
  - (i) Safety of a worker may be defined as :
    - (a) maintaining first aid facilities at work site

**P. T. O.**

- (b) providing insurance cover to the worker
  - (c) equipping the worker with latest tools and machines
  - (d) maintaining a safe working environment
- (ii) I. L. O. stands for :
- (a) Industrial Law Organisation
  - (b) Indian Labour Organisation
  - (c) International Labour Organisation
  - (d) Industrial Labour Organisation
- (iii) Which theory says that “within a given set of workers, there exists a subset of workers who are more liable to be involved in accidents” ?
- (a) Accident Proneness theory
  - (b) Biased Liability theory
  - (c) Pure chance theory
  - (d) Multiple causation theory

(iv) For ladder work safety, it is advised that a worker should not work atop a ladder for more than :

- (a) 1 hour
- (b) 2.5 hours
- (c) 4.0 hours
- (d) 6.0 hours

(v) To protect the workers from noise hazard, it is advised that no unprotected ear should be exposed to a peak sound pressure level (instantaneous) of more than :

- (a) 40 dB
- (b) 80 dB
- (c) 100 dB
- (d) 140 dB

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

- (i) Enlist the *three* principal ways of demolition.
- (ii) What is detonator ?
- (iii) Explain team lifting.

- (iv) Enlist the common causes of ladder accidents.
- (v) Define tunneling.
2. (a) What safety measures should be taken before excavation ? 5
- (b) Discuss the benefits of accident prevention. 5
3. (a) Discuss various components of training in brief. 5
- (b) Discuss the precautions to be taken before and during a demolition work. 5
4. (a) Discuss various measures for control of dust at a construction site. 5
- (b) Explain various steps of risk assessment in brief. 5
5. (a) What precautions should be taken by the workers while moving material mechanically ? 5
- (b) What safety measures should be taken by the employers regarding cranes ? 5

6. (a) What is tunneling ? What are different methods of tunneling ? 5
- (b) What precautions should be taken to mitigate the tunneling process hazards ? 5
7. (a) What are the responsibilities of the employer regarding safety at the work site ? 5
- (b) Enlist various accident causation theories. Explain any *one* theory in detail. 5
8. Write short notes on any *two* of the following :  
2×5=10
- (a) Most common causes of accidents
- (b) Delivery of construction safety training
- (c) Land and soil protection