

No. of Printed Pages : 4

MIS-023

**P. G. CERTIFICATE IN INDUSTRIAL
SAFETY (PGCINDS)**

Term-End Examination

December, 2021

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) As per the Domino theory of all accidents are caused by unsafe acts of people.

- (a) 88%
- (b) 60%
- (c) 40%
- (d) 20%

- (ii) PPE stands for :
 - (a) People's Protection Estimate
 - (b) Project Protection Estimate
 - (c) Personal Protective Equipment
 - (d) Project Proposal Evaluation
- (iii) Which class of respiratory equipment is able to provide protection against bacteria and virus ?
 - (a) Particle filter class P₁
 - (b) Particle filter class P₂
 - (c) Particle filter class P₃
 - (d) All of the above
- (iv) While air monitoring at underground works, which gas is tested first ?
 - (a) Oxygen
 - (b) Methane
 - (c) Hydrogen Sulphide
 - (d) Chlorine
- (v) It is mandatory to install anti-smog guns when construction and demolition site is larger than :
 - (a) 200 m²
 - (b) 2000 m²
 - (c) 20 m²
 - (d) 20000 m²

P. T. O.

[3]

MIS-023

- (B) Answer the following questions : 5×2=10
- (i) Define tunneling.
 - (ii) Define ventilation.
 - (iii) Define scaffolding.
 - (iv) Write the names of 3 R in the 3 R approach of waste minimization.
 - (v) What are the two categories in which the contributory factors of accidents may be grouped according to multiple causation theory ?
2. (a) Describe the most common causes of accidents in construction industry. 5
- (b) Mention various efforts made in India to ensure safety in construction. 5
3. (a) Describe important precautionary measures to be taken while performing underground activity. 5
- (b) Discuss various hazards and risks in tunneling work. 5
4. Describe major areas of consideration to be included in underground construction workers training programme. 10

P. T. O.

[4]

MIS-023

5. (a) Discuss various types of accidents that occur while working on roof tops and the precautions to avoid them. 5
- (b) Describe various safety aspects to be considered while working on scaffold. 5
6. (a) What are the general material handling precautions ? 5
- (b) What precautions workers must take while working with slings ? 5
7. (a) What do you understand by risk assessment ? Enlist various steps of risk assessment. Explain any *one* of them in brief. 5
- (b) What is Demolition ? What are the various methods of demolition and risks associated with them ? 5
8. Write short notes on any *two* of the following : 2×5=10
- (a) Benefits of proper safety training
 - (b) Fire protection in underground works
 - (c) Three points contact method for safe use of ladders
 - (d) Noise and vibration control

MIS-023