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**MIS-023**

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

**Term-End Examination**

**December, 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 9).*

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1. (A) Choose the most appropriate answer from the given options : 5×2=10
- (i) Process of temporary supporting a structure of trench, when in danger to collapse or during repair collapse is known as :
- (a) Winze  
(b) Hoist  
(c) Limit Switch  
(d) Shoring

**P. T. O.**

- (ii) Stages in Cumulative Musculoskeletal Injury (MSI) :
- (a) One
  - (b) Two
  - (c) Three
  - (d) No stage
- (iii) As per Indian statute, restriction of load in Manual Handling for additional safety practices :
- (a) Upto 100 kg
  - (b) Upto 70 kg
  - (c) Upto 55 kg
  - (d) Upto 80 kg
- (iv) Theory maintains that within a given set of workers, there exists a subset of workers who are more liable to be involved in accidents :
- (a) The energy transfer theory
  - (b) Accident proneness theory
  - (c) Biased liability theory
  - (d) The pure chance theory
- (v) Different types of filters are used to provide safety to workers in different kinds of exposures, "Type E" protects against :
- (a) Ammonia

- (b) Vapours from organic solvents
  - (c) Sulphur dioxide
  - (d) Chlorine
- (B) Define the following terms : 2×5=10
- (a) Impairment
  - (b) Blasting
  - (c) Stock Ladders
  - (d) Jib
  - (e) Air pollution
2. (a) Discuss common causes of accidents in construction sites and activities. 5
- (b) What safety measure to be taken before excavations and when working with Polychlorinated Biphenyls (PCB) ? Explain briefly. 5
3. (a) What type of training is required for underground work ? Explain briefly. 5
- (b) Discuss the precautions taken to mitigate the tunneling process hazards. 5
4. (a) Explain briefly safety aspects to be considered while working on a tower scaffolding. 5
- (b) Discuss the accidents occurring during roof work in construction. 5

5. (a) Explain the safety measures taken by employers regarding use of cranes and conveyors. 6
- (b) What are the stages of cumulative musculoskeletal injury ? Explain. 4
6. (a) What are the potential sources of air pollution and noise at construction sites ? Explain briefly. 6
- (b) Mention important government regulation related to pollution control. 4
7. (a) Write a note on Demolition work using explosives. 5
- (b) What precautions should be taken before and during demolition work ? 5
8. (a) What do you understand by refresh training ? 4
- (b) Discuss the protective equipments used for personal safety at construction work site. 6
9. Describe any case study in an accident investigation during dismantling work in a construction site. 10