

**POST GRADUATE CERTIFICATE IN  
INDUSTRIAL SAFETY (PGCINDS)**

**Term-End Examination**

**June, 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 no. 2 to 8.

---

---

1. (A) Choose the most appropriate answer from the given options :  $5 \times 2 = 10$
- (a) At the economic scale, construction sector stands at number two in India. Which sector/industry stands at number one ?
- (i) Manufacturing
- (ii) Entertainment
- (iii) Agriculture
- (iv) Hospitality

- (b) NSC stands for
  - (i) National Safety Committee
  - (ii) National Safety Council
  - (iii) National Safety Commission
  - (iv) National Safety Code
  
- (c) SHE stand for
  - (i) Sound and Healthy Environment
  - (ii) Safety, Health and Environment
  - (iii) Safe and Healthy Environment
  - (iv) Safety and Health Engineering
  
- (d) Any type of excavation which is carried out at more than 1.5 m of depth is considered as
  - (i) No-risk construction work
  - (ii) Low-risk construction work
  - (iii) Average-risk construction work
  - (iv) High-risk construction work
  
- (e) \_\_\_\_\_ considers the likelihood of an environmental hazard being realised.
  - (i) Hazard identification
  - (ii) Hazard analysis
  - (iii) Consequence analysis
  - (iv) Information gathering

- (B) Answer the following questions :  $5 \times 2 = 10$
- (a) Define drilling.
  - (b) Define blasting.
  - (c) Define safety net.
  - (d) Enlist the three classes of respiratory protective equipment.
  - (e) Mention the three principal ways of demolition of structure.

2. (a) Describe the secondary causes of accidents.
- (b) Enlist the seven basic principles to prevent accidents. Explain any two of these.  $2 \times 5 = 10$
3. (a) Discuss the need of safety in construction.
- (b) Enlist various accident causation theories and explain any one theory.  $2 \times 5 = 10$
4. (a) Discuss the basic safety measures to be taken in excavation and underground works.
- (b) Describe in brief, various methods of tunnel construction.  $2 \times 5 = 10$
5. (a) Describe the safe practices to be followed during the use of ladders.
- (b) Describe various safety measures to be taken while using pulleys.  $2 \times 5 = 10$

6. (a) Enlist the commonly used equipment for material handling applications. Describe any two in brief.
- (b) Discuss various safety measures to be taken by employers regarding the use of cranes.  $2 \times 5 = 10$
7. (a) What measures may be taken to minimize soil erosion ?
- (b) What precautions should be taken before and during demolition work ?  $2 \times 5 = 10$
8. Write short notes on any **two** of the following :  $2 \times 5 = 10$
- (a) Ergonomics of Material Handling
- (b) Personal Protective Equipment
- (c) Roof Work Safety
- (d) Purpose of Identification of Training Needs
-