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MIS-024

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

Term-End Examination

December, 2024

**MIS-024 : MECHANICAL AND ELECTRICAL
SAFETY MANAGEMENT**

Time : 3 Hours

Maximum Marks : 70

Note : (i) *Question No. 1 is compulsory.*

(ii) *Attempt any **five** questions from the
remaining questions (Q No. 2 to 8).*

1. (A) Answer the following objective type questions : $5 \times 2 = 10$

(a) Hazard Identification mainly focuses on :

(i) Chemical source and concentration

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P. T. O.

- (ii) Chemical Exposure
 - (iii) Chemical Analysis
 - (iv) Chemical Pathway
- (b) The secondary coil of a current transformer must never be while energized.
- (i) Grounded
 - (ii) Opened
 - (iii) Examined
 - (iv) Shortened
- (c) According to the IS code, the colour of earth wire is usually :
- (i) Red
 - (ii) Green
 - (iii) Yellow
 - (iv) Black
- (d) The purpose of CPR is to :
- (i) Stabilize body temperature to avoid hypothermia
 - (ii) Build upper body strength
 - (iii) Dislodge blood clots within the victim's lungs
 - (iv) Maintain oxygenated blood circulation

(e) Specially designed PPE kit includes
..... insulating gloves, matting,
blankets and covers.

(i) Plastic

(ii) Steel

(iii) Rubber

(iv) Wood

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

(i) Write down the importance of fuse and
grounding in electrical equipments.

(ii) What are the risk factors associated
with manual material handling ?

(iii) Write down the various safety
requirements in welding workshop.

(iv) Enlist the various Personal Protective
Equipments (PPE) for flash workplace.

(v) Discuss the need of First Aid in
Industry.

2. Enlist and explain the various types of machine
safeguarding devices used in Industry. 10

3. (a) Discuss various risk factors associated
with manual handling activities. How can
it be avoided ? 5

- (b) Write down general safety precautions during handling of hazardous chemicals. 5
4. (a) Explain reliability and mean time between failures (MTBF) with suitable examples. 5
- (b) Differentiate fixed path and variable path equipments. 5
5. (a) What are the main precautions carried out at the time of work at high voltage lines ? 5
- (b) Enlist do's and don'ts in manual lifting operations. 5
6. (a) What is CPR ? What are the procedures of first aid to be followed for unconscious electric shock victims ? 5
- (b) Discuss various safety tips while working with circuit breakers. 5
7. Write short notes on any *two* of the following : 5+5
- (a) Earth leakage protective devices
- (b) Personal Protective Equipment (PPE)
- (c) Hazard Identification

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