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**1810N689**

Candidate's Seat No : \_\_\_\_\_

**B.Sc. (F. & S.) Sem.-3 (Supple.) Examination**

**CC-204**

**Safety in Various Industries (New)**

**Time : 2-30 Hours]**

**October-2024**

**[Max. Marks : 70**

**Question-1 Write the following**

(i) What is "Permit To Work" system? Mention important types of PTW. What information are required to furnish in the Confined Space permit? 7

(ii) Discuss various categories of Construction machinery. Explain necessary steps to use them safely at construction sites. 7

**OR**

(i) What are scaffolds? Discuss their General Requirements? Explain important Hazards and Safety measures during erection of scaffolds. 7

(ii) Discuss important hazards and their control measures related to Hot Work. Explain decision flow chart for determining whether a hot work permit is needed or not. 7

**Question-2 Write the following**

(i) Write down important guidelines for safe use of stairways on the board. 7

(ii) Give an overview of Emergency Response and Notification on the board including Emergency Evacuation Plan, Fire Drills and Emergency Escape to the Water etc. 7

**OR**

(i) What are the HSE Best Practice used at Drilling and Service Platform during normal working hours? 7

(ii) How an employee can be protected from exposure to wet floors, spills, or clutter? 7

**Question-3 Write the following**

(i) Describe Types of Metallurgical processes. Discuss their Hazards and Safety Precautions. 7

(ii) Discuss merit and demerit of the Forging Operations with respect to safety. 7

**OR**

(i) Name the various operations related to Hot working of metal. Explain briefly each section of the process of an iron foundry. 7

(ii) What are the functional methods of cold working of metals? Explain major hazards and control measures related to the Hydraulic and Pneumatic Presses. 7

(P.T.O)

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**Question-4 Write the following**

- (i) What is Material Safety Data Sheet (MSDS)? Explain briefly the type of information provided by MSDS. 7
- (ii) Describe important precautions required during opening or breaking of any pipeline in a chemical industry. 7

OR

- (i) State classes of the hazardous chemicals/dangerous goods divided by the United Nation Committee of Experts on the Transport of dangerous goods. 7
- (ii) State Types of Chemical Hazards and their Controls measures in a Chemical Industry. 7

**Question-5 Attempt any seven out of twelve.**

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1. To prevent overturning of a scaffold structure, height should not be more than .....of the base width:
  - a) 3 times
  - b) 4 times
  - c) 2 times
  - d) 6 times
2. Excavated soil should be stacked away from the edge:
  - a) 1.0 meter
  - b) 1.5 meters
  - c) 1.75 meters
  - d) 2.0 meters
3. The "Trailing Hand Technique" is used to reduce the chance of injury if a slip and fall occurs while ascending a stairway. [True / False]
4. The maximum load for a workers transfer basket:
  - a) 8 persons
  - b) 6 persons
  - c) 4 persons
  - d) 2 persons
5. Safe exposure time for unprotected ears for a noise levels of 110 decibels:
  - a) 15 minutes
  - b) 20 minutes
  - c) 25 minutes
  - d) 30 minutes
6. Frequency of conducting a fire and abandon platform drill for manned facilities is:
  - a) Weekly basis
  - b) Once a month
  - c) Twice a month
  - d) Thrice a month

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7. Fingers should not be brought within ----- cm while feeding small parts to the press of the point of operation.
    - a) 10 cm
    - b) 15 cm
    - c) 20 cm
    - d) 25 cm
  8. Squaring shears should have fixed barrier guard placed at least ..... mm away from the shear (knife) and not more than 10 mm above the table:
    - a) 10 mm
    - b) 12 mm
    - c) 15 mm
    - d) 18 mm
  9. Which one represents flammable solids liable to spontaneous combustion
    - a) Cotton
    - b) Wood
    - c) Bituminous coal
    - d) Dry Calcium carbide
  10. Spillage of oil will be an example of:
    - a) Mechanical hazards
    - b) Reaction hazards
    - c) Environmental hazards
    - d) Toxicity and health effects Flammability hazards
  11. This operation is done to reduce size of the material.
    - a) Filtration
    - b) Pulverisation
    - c) Washing
    - d) Cooling
  12. Resistance of Earthing pit attached to storage tank of flammable substance should be monitored regularly and maintained
    - a) below 1 K-ohm
    - b) below 5 K-ohm
    - c) below 10 K-ohm
    - d) below 20 K-ohm
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