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2404E367

Candidate's Seat No : _____

B.Sc. (Fire & S.) (NEP) Sem.-4 Examination

DSC-C-242

Safety Equipment and Documentation

Time : 2-00 Hours]

April-2025

[Max. Marks : 50

- Q1 (i) State important points / conditions when the inspection of the steam boiler and/or a pressurized hot water plant and/or an air receiver is to plan. 5
- (ii) How do you ensure that operation and working environment of work equipment is safe? What are the emergency features available with work equipment? 5
- OR
- (i) Describe briefly important points to be ensured by an Employers before selection of work equipment. How could suitability of the work equipment be confirmed? 5
- (ii) Discuss the various types of maintenance of work equipment. How will you ensure that maintenance work would be carried out safely? 5
- Q2 (i) Discuss important types of safety guards with their merit and demerits. 5
- (ii) What are non-mechanical hazards? Suggest their control measures. 5
- OR
- (i) State important control measures required to minimize the hazards related to Mechanical machinery. 5
- (ii) Describe Important Mechanical machinery hazards. 5
- Q3 (i) Write a short note on Air Purifying Respirators. 5
- (ii) Describe Respiratory protection programme. 5
- OR
- (i) Justify the need of PPE. Explain important features of a safety shoes to protect foot in an industry? 5
- (ii) Describe in details various types of Self-Contained Breathing Apparatus. 5
- Q4(A) (i) Explain how a Work Permit is implemented in an industry? Why is a Work Permit required? 5
- (ii) What is HAZOP? Why is it useful for an industry? 5
- OR
- (i) Define Risk assessment? What are important practical steps those are needed to control the risks so that harm is unlikely? 5
- (ii) What are the important key elements of the on-site emergency plan? Explain Elements of the Planning for emergencies. 5

(P.T.O)

1. Inspection of complex equipment are scheduled:
 - a. After installation for the first time
 - b. After assembly at a new site or in a new location
 - c. At suitable intervals
 - d. All of the above
2. A crane is need to inspect under the act:
 - a. PUWER 98
 - b. LOLER 98
 - c. The Health and Safety (Safety Signs and Signals) Regulations
 - d. The Pressure Systems Safety Regulations 2000
3. restricts the use of such equipment with specific risk to the persons designated to use it with out appropriate information, instruction and training.
 - a. Regulation 6 of PUWER 98
 - b. Regulation 6 of LOLER 98
 - c. Regulation 7 of LOLER 98
 - d. Regulation 7 of PUWER 98
4. The ROPS must meet International Standards such as.
 - a. ISO 3471:1994
 - b. ISO 3472:1994
 - c. ISO 3473:1994
 - d. ISO 3474:1994
5. Fire hazard is possible in:
 - a. Bench top grinding machine
 - b. Pedestal drill
 - c. Chainsaw
 - d. Bench-mounted circular saw
6. The following basic safety measures should be observed when using power tools to protect against:
 - a. Electrical shock
 - b. Personal injury,
 - c. Ill-health
 - d. Risk of fire
 - e. All the above
7. Laser eyewear should be marked with optical density values and for which they are to be used.
 - a. Wavelengths
 - b. Frequecy
 - c. Energy
 - d. Colour intensity

8. Select correct operations or accidental situations where engineering controls are less possible and PPE becomes necessary.
- a. To enter into toxic or oxygen deficient atmosphere,
 - b. While working at height
 - c. Doing jobs like welding, cutting, grinding, chipping
 - d. All the above
9. Orientation and joint training program for staff, joint inspection and drill in organizations is a part of:
- a. Audit
 - b. Mock drill
 - c. Mutual Aid
 - d. Emergency preparedness
10. On-site emergency plan (O.S.E.P.) is mandatory to submit by every occupier giving detailed disaster control measures for the factory and to educate the workers employed in the factory premises under:
- a. Section 41 B(4) of the Factories Act, 1948
 - b. Rule 13 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989
 - c. (a) and (b)
 - d. Non of the above
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