

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

CC 204

Safety in Various Industries (New)

Time : 2-00 Hours]

December 2021

[Max. Marks : 50

Section – 1 Attempt any three of the following questions. Each question carries 14 marks.

Question in section-II is compulsory.

Section-I

- Question-1**
- A. Classify the hazardous chemicals/dangerous goods in various categories as per the United Nation Committee of Experts for Transportation of dangerous goods. Give suitable examples **7**
- B. What are Hot Rolling Mill Operations? Describe their main hazards and safety measures **7**
- Question-2**
- A. Describe important precautions required during opening or breaking of any pipeline in a chemical industry. **7**
- B. Write Short note on: **7**
- a. MOC
- b. HIRA
- Question-3**
- A. State Safety Philosophy for construction work. Mention important reasons for poor health and safety implementation at construction site. What safety measures you will suggest improving the conditions? **7**
- B. What are the important guidelines to be considered while working with various types of ladders? **7**
- Question-4**
- A. Give an overview of a Steel Manufacturing industry with important Hazards and their Safety Measures. **7**
- B. Discuss various categories of Construction machinery. Explain necessary steps to use them safety at construction sites. **7**
- Question-5**
- A. What are the main hazards and safety measures of Moulding and Core making processes? **7**
- B. What is foundry? Explain important Health Hazards and their Safety Measures of the iron foundry. **7**
- Question-6**
- A. Discuss merit and demerit of the Forging Operations with respect to safety. **7**
- B. What are the Grinding Machines? Describe their main hazards and precautionary measures. **7**
- Question-7**
- A. What is Material Safety Data Sheet (MSDS)? Briefly explain the type of information provided by MSDS. **7**
- B. How safely Temporary Work Platforms are erected? Discuss best practices for the same. **7**
- Question-8**
- A. Describe Safety aspects of transfer of Chemicals by pipelines and also by different types of containers. **7**
- B. Define "Hot and Cold processes". What are the important Hazards and Safety Precautions of Hot Work while working with furnaces, kilns and ovens? **7**

P.T.O.

Section-II

Question-9

MCQ

8

1. If it is decided that a hot work permit is required for a job task, the Hot Work Permit must be obtained by the hot work operator from:
 - a. Safety Manager
 - b. Main Contractor
 - c. Unit Head
 - d. Permit Authorizing Individual
2. Suspension ropes of diameter more than 0.75 inch used in Swinging (Hanging) scaffold should withstand how many times the intended load:
 - a. 4 times
 - b. 2 times
 - c. 8 times
 - d. 6 times
3. Company and contractor employees are not responsible for reporting any hazards they may observe on the platform to their immediate platform supervisor.
 - a. True
 - b. False
4. Nozzle air pressure of compressed air used to blow chips from machine or clothing should be less than:
 - a. 05 psig
 - b. 10 psig
 - c. 15 psig
 - d. 20 psig
5. Speed test is performed before installing wheel in grinding machine keeping:
 - a. the same speed as service speed
 - b. 1.5 times of the service speed
 - c. 2.0 times of the service speed
 - d. 2.5 times of the service speed
6. Air temperature is required to maintain between 19° to 24°C, RH between 30 to 50% and air velocity air velocity 0.5 m/s in Forging Operations at:
 - a. Near Furnace
 - b. Working Place
 - c. Rest room
 - d. None of the above
7. Colour Code for cooling tower Pipelines required as per Indian Standard 2379:
 - a. Sea Green
 - b. Sky blue
 - c. Dark Violet
 - d. Blue

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8. Which is the Instrument used for measuring the speed of wind:
- a. Atmometer
 - b. Hygrometer
 - c. Pyrometer
 - d. None of the above
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