

SARDAR PATEL UNIVERSITY -388120  
 MASTER OF SCIENCE - INDUSTRIAL HYGIENE & SAFETY  
 SEMESTER EXAMINATION (SECOND SEMESTER 2018-19)  
 20<sup>TH</sup> MARCH 2019, WEDNESDAY 2pm to 5pm

PS02CIHS22 – HAZARD IDENTIFICATION, ASSESSMENT AND CONTROL TECHNIQUES

MARKS : 70

- Q1 Multiple Choice. 8
- a. What is the objective of Risk Assessment?  
 a. Emergency Preparedness b. Operability c. Both of the above d. None of the above
  - b. What is the schedule charge for complete disfigurement of face?  
 a. 600 mandys b. 60 mandys c. 6000 mandys d. 6 mandys
  - c. Which of the following is synonym of Bow-Tie Analysis? ...  
 a. Cause-Consequence Analysis b. Cause Analysis c. Consequence Analysis d. All
  - d. What is the periodicity of updating Notification of Industrial Activity? ...  
 a. Once in three years b. Biannual c. Annual d. At inception and modification phase
  - e. The On-Site Emergency Preparedness is the responsibility of...  
 a. Occupier b. District Collector c. Factory Manager d. Safety Officer
  - f. CEPPR is applicable for the hazardous chemicals as per the...  
 a. HW (M&H) Rules b. MSIHC Rules c. Explosives Substance Rules d. Petroleum Rules
  - f. Which of the following can be considered as the Recommended Standard for Safety Audit? ...  
 a. DISH Guidelines b. IS c. ISO d. All of the above
  - g. Reliability condisers...  
 a. Time Period b. Operating Conditions c. All of the above d. None
  - h. LOTO is much useful where...  
 a. Energy is involved b. Lock is not required c. Tag is respected d. None
- Q2 Attempt any SEVEN from the following. 14
- a. Enlist at four means of expressing Reliability.
  - b. What is significance of Safety Indices?
  - c. When accident investigation should be postponed?
  - d. Sketch ALARP diagram with nomenclature.
  - e. What are the expected characteristics for a member of HAZOP study team?
  - f. Sketch FMECA worksheet format.
  - g. Enlist steps of JSA.
  - h. "Confined Space Environment must be monitored by an Industrial Hygienist". Comment.
  - i. Write formula for Safe-T-Score.
- Q3 a. How a chemical is determined as Hazardous? 6
- b. When Safety Report is applicable to an Industrial Activity? 6
- OR
- b. Write short note: On-Site Emergency Plan 6

(P.T.O.)

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- Q 4 a) Draw an Accident Weed and Explain it. 6
- b) Types of Safety Work Permit. Prepare a Work Permit for Welding for leak in a Tank of Benzene. 6
- OR
- b) What is Job safety analysis (JSA ) explain with a work of Drilling a hole in a Metal block. 6  
What is plant safety Inspection. What are there types?
- Q 5 a) Hazard and risk progression chart. 6
- b) Explain Hazard and Operability study (HAZOP). 6
- OR
- b) Preliminary hazard analysis (PHA) 6
- Q 6 a) Difference between Accident and Incident and why performance of both matters . 6  
Why they should be investigated ?
- b) Explain Partial and Total disablement 6
- OR
- b) Explain in short Classification of Accidents. 6
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