

One Year Post Diploma in Industrial Safety

Branch: Industrial Safety

Subject: Appraisal Analysis Inspection and Control Procedures

Time : 3 Hrs.**MM: 100**

Section – A

Note: Multiple Choice questions. All questions are compulsory.

(10x1=10)

- Q1. The index used for comparing safety performance to two similar industries is:
a) Frequency rate b) Safe-T score
c) Frequency severity indicator d) Severity rate
- Q2. Process layout is used for:
a) Repetitive processing b) Intermittent processing
c) Both (a) and (b) d) Neither (a) nor (b)
- Q3. Permit to work system is an _____
a) Administrative control b) Engineering control
c) Both (a) and (b) d) None of the above
- Q4. Product layout is preferably used for:
a) Repetitive processing b) Continuous processing
c) Both (a) and (b) d) Neither (a) nor (b)
- Q5. Which is not a guide word for HAZOP?
a) Reverse b) No
c) More d) Which
- Q6. Which of the following is not a hazard identification technique?
a) HAZOP b) JSA
c) Event Tree Analysis d) Safety audit
- Q7. An accident investigation should attempt to locate _____ of accident
a) Direct cause b) Root cause
c) None of the above d) Both (a) and (b)
- Q8. The Indian standard available if measuring safety performance is
a) IS 4569 b) IS 4253
c) IS 14489 d) IS 3786
- Q9. As per the Factories Act, 1948, an accident is reportable if the worker is unfit for work for a period of _____ hours or more
a) 24 hours b) 72 hours
c) 48 hours d) 50 hours
10. As per the scheduled charges for disabilities the equivalent man days lost in case of death is _____ MDL.
a) 3000 b) 6000
c) 5000 d) 4000

Section – B

Note: Objective type questions. All questions are compulsory.

(10x2=20)

- Q11 Frequency rate and severity rate are defined under IS _____

- Q12 Risk is probability of exposure to hazard. (True/ False)
- Q13 As per Factories Act, 1948, an accident is reportable in case the worker is unfit for 24 hours. (True/ False)
- Q14 In job safety analysis the job is broken down into various steps sequentially and hazards identified in each step. (True/ False)
- Q15 Event Tree Analysis ends at _____
- Q16 In partial total disablement the person is partially incapacitated from carrying out any gainful occupation. (True/ False)
- Q17 Full form of BLEVE is _____
- Q18 Colour code of pipelines helps in identification of the fluids being carried inside the pipe. (True/ False)
- Q19 "As well as" is a HAZOP guide word. (True/ False)
- Q20 The time duration during which the safety equipment cannot respond is known as fractional dead time. (True/ False)

Section – C

Note: Short Answer type questions. Attempt any twelve questions out of fifteen questions.

(12x5=60)

- Q21 Explain Time charges scheduled in employees' compensation Act.
- Q22 Explain safety tag system.
- Q23 Explain in brief the critical incidence technique.
- Q24 Write a short note on Bhopal disaster.
- Q25 Explain the concept of system safety.
- Q26 Write a short note on measurement of safety performance.
- Q27 Enumerate the task of a competent person for confined space permit.
- Q28 What is the system of accident reporting under the Factories Act, 1948?
- Q29 What is the manufacturer's responsibility for products and substances for use in factories registered under the Factories Act, 1948?
- Q30 Prepare a work permit for arc welding operation.
- Q31 What is individual risk?
- Q32 What is Safe-T score?
- Q33 Define frequency rate and write down its formula.
- Q34 What are the four steps of JSA?
- Q35 Write a brief note on frequency severity indicator.

Section – D

Note: Long Answer type questions. Attempt any two questions out of three questions.

(2x10=20)

- Q36 Draw up a check list for storage and handling of bulk ammonia.
- Q37 Define the hierarchy of controls. Illustrate and justify the position of use of personal protective equipment in the hierarchy.
- Q38 Enumerate the conditions which demand for a need for permit to work system. Explain different types of permits. Design a permit format for confined space working.