

- Q.29 Calculate the FR of an organization where total no. of injuries is 20(2) under total MHW of 3,00,000.
- Q.30 Explain safety tag system.
- Q.31 Explain the role of top management in accident prevention.
- Q.32 Explain 'What-if-analysis'. Develop a 'What-if analysis' form.

SECTION-D

- Note:** Long answer type questions. Attempt any three questions out of four questions. (3x10=30)
- Q.33 What is the index for comparing safety performances of similar firms. Two firms A and B are similar firms. Firm A has 120 workers working for 48 hours a week and 20 accidents (lost time) resulting in 150 man -days lost. Firm B has 100 workers working for 48 hrs. a week and 30 accidents (lost time) resulting in 150 man-days lost. Which firm has better safety performance.
- Q.34 Explain the various stages of BLEVE with a typical case example.
- Q.35 Describe in brief the methodology of HAZOP. State the factors responsible for success or failure of HAZOP study.
- Q.36 Prepare a model checklist for safety inspection of ETP.

No. of Printed Pages : 4
Roll No.

RLI-095404

**1st Year / One Year Post Diploma Course
in Industrial Safety
Subject:- Appraisal Analysis Inspection and Control
Procedures**

Time : 3Hrs.

M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Permit to work system is an _____
- Administrative control
 - Engineering control
 - Both (a) and (b)
 - None of the above
- Q.2 Check list for Job Safety Analysis (JSA) consists of
- Work area, material, machine, tools
 - Men, machine, material, tools
 - Men, machine, work area, tools
 - Men, work area. Material, tool
- Q.3 Which of the following is not a hazard identification technique?
- FMEA
 - Fault Tree Analysis
 - Permit to work
 - HAZOP
- Q.4 What is the main purpose of hazard identification?
- To minimise the effect of a consequence
 - For better risk management

- c) To characterize adverse effect to toxins
d) To reduce probability of occurrence
- Q.5 Which is not a guide word for HAZOP
a) Reverse b) No
c) More d) Which
- Q.6 Which of the following is not a hazard identification technique
a) HAZOP b) JSA
c) Event Tree Analysis d) Safety audit
- Q.7 An accident investigation is an attempt to locate _____ of accident
a) Direct cause b) Root cause
c) None of the above d) Both (a) and (b)
- Q.8 The Indian standard available if measuring safety performance is
a) IS 4569 b) IS 4253
c) 3979 d) 3786
- Q.9 As per the Factories Act, 1948, an accident is reportable if the disability extends for a period of _____ hours or more
a) 24 hours b) 72 hours
c) 48 hours d) 50 hours
- Q.10 As per the scheduled charges for disabilities the equivalent man days lost in case of death is
a) 3000 b) 6000
c) 5000 d) 4000

SECTION-B

Note: Objective type questions. Attempt any ten questions out of twelve questions. (10x2=20)

- Q.11 Define partial total disablement.
- Q.12 What are corollary facts of accident investigation?
- Q.13 Write down the classification of accidents as per IS 3786.
- Q.14 Define schedule of charges.
- Q.15 What are the steps of JSA?
- Q.16 What is a Periodic Inspection?
- Q.17 What is the meaning of the HAZOP guide word "Reverse"?
- Q.18 Define hazard and safety.
- Q.19 Define TREM card
- Q.20 Define incidence rate and write down its formula
- Q.21 What is the use of keeping accident records?
- Q.22 Define 'lost time injury'.

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x5=40)

- Q.23 Define FMEA.
- Q.24 Write a short note on Bhopal disaster.
- Q.25 Explain the order of design priority.
- Q.26 What do you understand by engineering control.
- Q.27 Prepare a sample work permit form.
- Q.28 Write down two main assumptions made before doing HAZOP study.