

**One Year Post Diploma Course  
in 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)**

1. Dealing with the fact that certain aspects of any management situation are more important than others is called:  
a) Analysis of tradeoffs      b) Sensitivity analysis  
c) Recognition of priorities      d) Analysis of variance
2. The process of comparing outputs to previously established standards to determine if corrective action is needed is called:  
a) Planning      b) Directing      c) Controlling      d) Budgeting
3. Which of the following does not relate to system design?  
a) Altering the system capacity      b) Location of facilities  
c) Inventory management      d) Selection and acquisition of equipment
4. Which of the following is not a benefit of using models in decision-making?  
a) They provide a standardized format for analyzing a problem.  
b) They serve as a consistent tool for evaluation  
c) They are easy to use and less expensive than dealing with the actual situation.  
d) All of the above are benefits.
5. Which is not a guide word for HAZOP  
a) Reverse      b) No      c) More      d) Which
6. Which of the following is not a hazard identification technique?  
a) HAZOP      b) JSA      c) Event Tree Analysis      d) Safety audit
7. 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)
8. The Indian standard available if measuring safety performance is  
a) IS 4569      b) IS 4253      c) 3979      d) 3786
9. As per the Factories Act, 1948, an accident is reportable if is 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  
a) 3000      b) 6000      c) 5000      d) 4000

**Section-B**

**Note: Very Short Answer type questions. Attempt any ten questions out of twelve questions.** **(10x2=20)**

11. What are corollary facts?
12. Write the difference between formal and informal inspection
13. Differentiate between partial total disablement and partial permanent disablement
14. Define schedule of charges
15. Write the colour code of pipelines.
16. What is a Periodic Inspection?
17. What is "As well as"?
18. Define fractional dead time.
19. What is individual risk?
20. Define TREM card
21. Define frequency rate and write down its formula
22. What are the four steps of JSA?

### **Section-C**

**Note: Short Answer type questions. Attempt any eight questions out of ten questions**

**(8x5=40)**

23. Explain Time charges scheduled in employees' compensation Act.
24. Explain safety tag system.
25. Explain in brief the critical incidence technique.
26. Write a short note on Bhopal disaster.
27. Explain the concept of system safety.
28. What is incident recall technique?
29. Enumerate the task of a competent person for confined space permit.
30. Write a short note on down index.
31. What do you mean by Product Safety?
32. Prepare a work permit for arc welding operation.

### **SECTION – D**

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

**(3x10=30)**

33. What is the index for comparing safety performances of similar firms? Two firms A and B are similar firms. Firm A has 80 workers working for 48 hours a week and 20 accidents (lost time) resulting in 120 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?
34. What is direct cost and indirect cost of an accident? How these costs can be controlled? Explain the role of top management in accident prevention.
35. State the objective of safety audit. Explain two technical elements and two management elements of safety audit. Explain the process of conducting a safety audit.
36. What are the different stages for the preparation and maintenance of permit to work system?