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Total Number of Pages: 02

Course: B.Tech  
Sub Code: RIS7B001

7<sup>th</sup> Semester Back Examination: 2022-23

SUBJECT: Industrial Safety Engineering

BRANCH(S): AUTO,CHEM,CIVIL,CSE,EEE,EEE,IT,MANUTECH,MECH,  
METTA,MINING,MME,PE,PLASTIC,PT

Time: 3 Hour

Max Marks: 100

Q. code: L031

Answer Question No.1 (Part-1) which is compulsory, any eight from Part-II and any two from Part-III.

The figures in the right-hand margin indicate marks.

#### Part-I

- Q1 Answer the following questions: (2 x 10)**
- a) What is the primary function of maintenance department?
  - b) What are different types of maintenance?
  - c) What are the methods of fire prevention?
  - d) What are the types of accident in industrial safety?
  - e) What are the causes and effects of industrial accidents?
  - f) What are 4 methods for preventing corrosion of metals?
  - g) What are different types of wear?
  - h) Describe the importance of fault tracing.
  - i) What are the merits and demerits of preventive maintenance?
  - j) What are the two differentiations between the maintenance and repair?

#### Part-II

- Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve) (6 x 8)**
- a) What are the types of accident in industrial safety?
  - b) Examine some of the common source of mechanical hazards.
  - c) Organize the classification of pressure vessels.
  - d) Describe fault tree analysis.
  - e) What is the corrosion and its prevention?
  - f) What are the different types of wear and causes?
  - g) Enlist the points to be considered for safety in industries as per The Factories Act, 1948.
  - h) What is lubrication and method of lubrication?
  - i) What is the concept and importance of fault tracing?
  - j) How do you draw a decision tree diagram?
  - k) What is periodic maintenance?
  - l) What are the steps in making preventive maintenance procedure?

### **Part-III**

#### **Only Long Answer Type Questions (Answer Any Two out of Four)**

- Q3** Illustrate about mechanical and electrical hazards to humans and the effect of current on human body for different dosage. **(16)**
- Q4** Explain the different types of lubrication systems in detail. **(16)**
- Q5** Draw decision tree for following machines **(16)**
- I. Any one machine tool Pump
  - II. Air compressor
  - III. Internal combustion engine
  - IV. Boiler
  - V. Electrical motors.
- Q6** Steps for periodic and preventive maintenance of: **(16)**
- I. Machine tools
  - II. Pumps
  - III. Air compressors
  - IV. Diesel generating (DG) sets.