

- Q.27 Centralized tool control.
- Q.28 Hazards associated with power presses.
- Q.29 Control measures against the human errors.
- Q.30 Safety requirements in roof work and fragile surface.,
- Q.31 Common defects in lifting chain and slings.
- Q.32 Fall arrestor.

SECTION-D

Note: Long answer questions. Attempt any three questions out of four Questions. (3x10=30)

- Q.33 Explain the Role of Preventive maintenance in accident prevention.
- Q.34 Discuss the safety features associated with design, construction and use of Ramps, Gangways and Floors.
- Q.35 Discuss about selection, inspection, maintenance, repairs and safe use of Portable power tools.
- Q.36 Explain in detail the kinematics of safe lifting techniques during manual material handling.

No. of Printed Pages : 4
Roll No.

RLI-095402

Ist Year / Industrial Safety Sub.: Safety Engineering-I

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Multiple type Questions. All Questions are compulsory. (10x1=10)

- Q.1 Section 26 of Factories Act 1948 deals with _____.
 a) Fencing of Machinery
 b) Self Acting Machines
 c) Casing of New Machinery
 d) Revolving Machinery
- Q.2 Most common material preferred for construction of machine guards is
 a) Wood b) Plastic
 c) Metal d) Rubber
- Q.3 Slip hazards are caused by :
 a) Slippery floors b) The spillage of oil or water
 c) Unsuitable Footwear d) All of the above
- Q.4 Trip hazards are caused by :
 a) Obstructions on the floor
 b) Cables across walkways
 c) Poor lighting levels
 d) All of the above

- Q.5 _____ are widely used to arrest falls of people, tools and materials from height but competent installation is essential;
- a) Safety nets b) Safety Harness
c) Safety Belt d) None of the above
- Q.6 Machines guards should be fitted to protect the operator and others near by from _____
- a) Rotating parts b) Flying chips & sparks
c) Points of operation d) All of the above
- Q.7 Employees working with which of these tool are advised to wear head and face protection in addition to the required eye protection
- a) Electric tools b) Pneumatic tools
c) Liquid fuel tools d) None of these
- Q.8 An abrasive wheel is checked for cracked for cracks with a _____.
- a) Sound or ring Test b) Hit and Trial Test
c) Forward or rewind Test d) X-Ray machine
- Q.9 What type of things should be checked when inspecting an electric tool
- a) Check for frayed power cord
b) Loose pugs or broken prongs
c) The power switch
d) All of the above
- Q.10 When working with power tools outdoor or in a damp environment, where should the cord be plugged in to
- a) A non-waterproof extension cord
b) A GFCI (Ground Fault Circuit Interrupter)
c) An outlet without a grounding plug
d) All of the above

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x2=20)

- Q.11 What are the statutory provisions for the safeguarding of machines.
- Q.12 Signaling in respect of cranes.
- Q.13 What is breaking strength of chain / wire rope.
- Q.14 What is Productivity.
- Q.15 Destructive and Non Destructive testing.
- Q.16 Kinks.
- Q.17 Rope fitting.
- Q.18 Fleet angle.
- Q.19 6x9 construction of wire rope.
- Q.20 Thimble.
- Q.21 Fatigue.
- Q.22 SWL.

SECTION-C

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

- Q.23 Inspection and testing of hand tools.
- Q.24 Various types of defects of wire ropes.
- Q.25 Ergonomics of machine guarding.
- Q.26 Improving safety and productivity through work place design.