

- 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.

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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)

- 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.

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;
- Safety nets
 - Safety Harness
 - Safety Belt
 - None of the above
- Q.6 Machines guards should be fitted to protect the operator and others near by from _____
- Rotating parts
 - Flying chips & sparks
 - Points of operation
 - 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
- Electric tools
 - Pneumatic tools
 - Liquid fuel tools
 - None of these
- Q.8 An abrasive wheel is checked for cracked for cracks with a _____.
- Sound or ring Test
 - Hit and Trial Test
 - Forward or rewind Test
 - X-Ray machine
- Q.9 What type of things should be checked when inspecting an electric tool
- Check for frayed power cord
 - Loose pugs or broken prongs
 - The power switch
 - 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 non-waterproof extension cord
 - A GFCI (Ground Fault Circuit Interrupter)
 - An outlet without a grounding plug
 - All of the above

SECTION-B

- Note:** Objective type questions. All questions are compulsory. $(10 \times 2 = 20)$
- 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. $(8 \times 5 = 40)$
- 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.