

SNS COLLEGE OF ENGINEERING



Kurumbapalayam (Po), Coimbatore – 641 107

An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A' Grade Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE NAME: 19EE01 BASIC ELECTRICAL AND ELECTRONICS ENGINEERING







SAFETY MEASURES



ELECTRICAL SAFETY-

- The meaning of term safety is being safe, not being dangerous or not to be in danger.
- Place yourself in in secure position to avoid slipping, moving backward against live conductors or apparatus.
- Make habit of being cautious.
- In event of lightening, storm avoid outdoor works In electrical installation.

ELECTRICAL ACCIDENTS-

• The event that happens unexpectedly and causes damage or injury to a person or people.







CAUSES OF ELECTRICAL ACCIDENTS



- Lack of knowledge.
- Over-confidence of workers.
- Improper instructions given to workers.
- Use of low quality materials.
- Unavailability of caution boards, safety tags, danger plates.
- Working on live parts.
- Unavailability of gloves, rubber mats..etc
- Working with wet hands.
- Unhooked shirt buttons, sleeves...etc
- Habit of Wearing chains, bracelets..etc







PREVENTION OF ELECTRICAL ACCIDENTS



- Safety book/ Training should be given to all persons working in plants.
- Only qualified men do the work,
- Untrained person should not allow handling electrical equipment.
- While working on live equipment obey the proper instructions.
- Give proper instructions for super vision.
- Do not allow visitors & unauthorized persons to touch or handle electrical equipment.
- Know the work content and work sequence, especially all safety measures.
- Do not work if you are not sure or knowledge of the condition of equipment/ machine.
- Do not perform, or continue to perform, any work when you are in doubt about the safety procedure to be followed,
- Insulate yourself on the insulating material like wood, plastic etc. before starting the work on live main







SAFETY SIGNS IN INDUSTRIES







A CAUTION

ELECTRIC GATE KEEP CLEAR

A CAUTION

DO NOT USE
MOBILE PHONES

A CAUTION

CONTROL PANEL
ROOM
AUTHORISED PERSONNEL ONLY

A CAUTION

STRONG RADIATION

A CAUTION

ELECTRICALLY CLASSIFIED AREA

A CAUTION

AUTHORISED PERSONNEL ONLY

A CAUTION

LASER RADIATION DO NOT STARE

A CAUTION

DO NOT LOOK AT ELECTRIC ARC

A CAUTION

DO NOT
TOUCH TERMINAL
IN THE OPEN POSITION







SAFETY SIGNS IN INDUSTRIES





















FACTORS AFFECTING THE SEVERITY OF ELECTRIC SHOCK



The effect of electrical shock on human bodies depends on following factors.

- 1. Magnitude voltage of the system.
- 2. The period or duration for which the area of contact with lives part.
- 3. It is also depends on supply system i.e. A.C or D.C.
- 4. Body resistance (If wet resistance of body reduces)
- 5. Shock may occur even when voltage is low (50V rms AC low or 75V DC sometimes OR

Low voltage does not mean low hazard.)

- 6. Path of current through body.
- 7. The presence of moisture in the environment.
- 8. The general health of the person prior to the shock.







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