



# **SNS COLLEGE OF TECHNOLOGY**



**(An Autonomous Institution)**

## **WIRING AND FITTINGS**





# WIRING & FITTINGS



- Majority of the domestic consumers are normally not technically trained persons.
- In residences the electricity is used by women to a large extent and sometimes by children also. As such it is necessary that extreme care be taken in providing in-built safety in the wiring and installation of a domestic house.
- Some of the important safety requirements in this respect are as follows:
  - (a) All outlets in electrical appliances shall be of 3 pin type and the third pin shall be connected to the earth.
  - (b) All single pole switches shall be on the phase conductor only.
  - (c) The electrical outlets in a bath room shall be away from the shower or sink.



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- (d) Wiring for power outlets in the kitchen shall be done in metallic conducts.
- (e) Electrical outlet shall not be located above the stove.
- (f) The clearance between the bottom-most point of a ceiling fan and the floor shall not be less than 2.4 metres.
- (g) The metallic body of the fan regulators and all other appliances shall be earthed effectively.
- (h) It is desirable to provide an earth-leakage circuit breaker particularly where electrical appliances are located e.g. bath room or other sensitive places.
- (i) All socket outlets should be provided with their individual switches located in the phase. In addition all power socket outlets rated at 15A shall be provided with individual fuse.





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- (j) Where wiring is done on more than one phase, minimum distance of two metres shall be provided between the phases.
- (k) Flexible cables shall not be used in places where they are liable to be subjected to mechanical damage.
- (1) The wiring should be done systematically and proper type of protection (miniature circuit breaker or fuses) shall be provided for each circuit or sub-circuit. Size of fuse higher than required should never be used.
- (m) Particular care should be taken to see that the insulation will not get damaged accidentally or thermally. As far as possible wires should not be taken close to metallic structures. Where this is to be done, the wires should be taken through PVC pipes conforming to IS.
- (n) Many accidents have occurred due to leakage from the wiring to the metallic clothes line. As such for drying the clothes non-metallic ropes should only be used.







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- (o) Care should be taken not to overload the wiring by connecting power appliances to lighting circuits or by connecting several appliances through multiplug sockets.
- (p) In case a fuse blows, it should never be replaced by one of higher size. It is preferable to use miniature circuit breakers in place of fuses.
- (q) Care should be taken so that the wires do not pass too close to inflammable material such as window curtains, as short circuit can otherwise result in a fire.
- (r) As far as practicable, portable fire extinguishers should be purchased and all family members should be given training in their use. They should also be trained in first aid and resuscitation.





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- (s) Due to frequent breakdowns in electric supply, stand by generating sets are now-a-days commonly used both in domestic as well as non-domestic premises.



The fuel used is highly inflammable and as such extreme care should be taken in its handling and storage. Naked flame should never be brought in the vicinity of such fuel/generating set.

The supply from such set should always be taken through a change over switch of appropriate rating and in no case the set should be directly plugged in a socket.



# THANK YOU