- 1. Surrounded by a case, housing, fence, or walls that prevent from accidentally contacting energized part is **ENCLOSED**.
- 2. **ISOLATED** means that equipment is not readily accessible to persons unless special means for access are used.
- 3. load and no load; or (2) load and rest; or load, no load and rest is called **INTERMITTENT** duty.
- 4. An electrical outlet constructed so that moisture will not enter the enclosure is classified as being **WATERTIGHT.**
- 5. The <u>AMPACITY</u> is the current in amperes a conductor can carry continuously under the conditions of use without exceeding its temperature rating.
- 6. Encased with a material or composition or thickness that is not recognized by the code as electrical insulation is defined as a covered <u>CONDUCTOR.</u>
- 7. Covered, shielded, fenced or enclosed by means of suitable covers, casings, barriers, rails, screens, mats, or platforms is the definition of **GUARDED**.
- 8. The overhead service conductors from the last pole or other aerial support to and including the splices, if any, connecting to the service entrance conductors at the building or other structure is the **SERVICE DROP.**
- 9. Interior locations protected from weather but subject to moderate degree of moisture, such as basements, some bars, some cold-storage warehouses and the like, the partially protected locations under canopies, marquees, roofed open porches, and the like, shall be required fixtures marked "suitable for <u>DAMP</u> locations".
- 10. A fitting is **PART OF THE WIRING SYSTEM THAT IS INTENDED PRIMARILY TO PERFORM A** MECHANICAL FUNCTION.
- 11. Without live parts exposed to a person on the operating side of the equipment is called <u>DEAD</u> <u>FRONT.</u>
- 12. A conductor encased within material of composition or thickness not recognized by the code is a <u>COVERED</u> conductor.
- 13. **WEATHERPROOF** means so constructed or protected that exposure to the weather will not interfere with its successful operation.
- 14. The definition of automatic self-acting, operating by its own mechanism when actuated by some impersonal influence such as <u>A CHANGE IN CURRENT STRENGTH, TEMPERATURE, AND</u> <u>MECHANICAL CONFIGURATION.</u>
- 15. Only wiring methods recognized as **<u>SUITABLE</u>** are included in the code.
- 16. An accessible conductor is **NOT PERMANENTLY ENCLOSED BY A STRUCTURE.**
- 17. The definition of ambient temperature is <u>THE TEMPERATURE OF THE AREA SURROUNDING THE</u> <u>CONDUCTOR</u>
- 18. A <u>COVERED</u> conductor is one having one or more layers of non-conducting materials that are not recognized as an electrical insulation.

- 19. The definition of a dry location <u>IS NOT NORMALLY SUBJECTED TO DAMPNESS, NOT</u> <u>NORMALLY SUBJECTED TO WETNESS, AND MAY BE TEMPORARILY SUBJECTED TO</u> <u>WETNESS.</u>
- 20. <u>VARYING</u> duty is a type of service where both the load and the time intervals may have wide variations.
- 21. A requirement of service that demands operation for alternate intervals of (1) load and no load; or (2) load and rest; or load, no-load and rest is called **INTERMITTENT** duty.
- 22. Continuous load is <u>A LOAD WHERE THE MAXIMUM CURRENT IS EXPECTED TO CONTINUE</u> FOR THREE HOURS OR MORE.
- 23. Concealed is MADE INACCESIBLE BY THE STRUCTURE OR FINISH OF THE BUILDING
- 24. GROUNDED CONDUCTOR is a system or circuit conductor that is intentionally grounded.
- 25. Approved is **ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION**
- 26. A system which will automatically furnish lighting and/or power to specified areas and/or equipment when there is a failure of the normal supply is known as an **EMERGENCY** system.
- 27. An isolating switch which is one that is **INTENDED FOR CUTTING OFF AN ELECTRICAL CIRCUIT** FROM ITS SOURCE OF POWER
- 28. In an electric mixer intended for travelling in and out of an open mixing tank shall be considered **PORTABLE** utilization equipment.
- 29. An assembly that has concealed parts from process of manufacturing and cannot be inspected before being installed at a building site without disassembly, damage, or destruction, is a definition of **CLOSED CONSTRUCTION.**
- 30. An **INTEGRATED ELECTRICAL SYSTEM** is a unitized segment of an industrial wiring system in which orderly shutdown is necessary to ensure safe operation.
- 31. **OFFSET** is the distance measured along the enclosure wall from the axis of the centerline of the terminal to a line passing through the opening in the enclosure.
- 32. The definition of a bathroom is an area including a <u>SLIDING GLASS DOOR</u> with one or more of the following; a toilet, a tub, or a shower.
- 33. <u>COVER</u> is defined as the shortest distance measured between a point on the top surface of any direct buried conductor, cable, conduit, or other raceway and the top surface of the finished grade.
- <u>34. INTERLOCK</u> is a device actuated by the operation of some other device with which it is directly associated, to govern succeeding operations of the same or allied devices.
- 35. Electrical plans and drawings shall be drawn on sheets of the standard sizes 760mm x 1,000mm, 600mm x 900mm, and 500mm x 760mm except **760mm x 900mm**.

- 36. Connection by means of wire binding screws or studs and nuts having upturned lugs or equivalent shall be permitted for **<u>5.5mm</u><sup>2</sup>** or smaller conductors.
- 37. <u>1:100</u> scale shall be used for floor/deck and riser/profile plans.
- 38. Title block or nameplate of plans and drawings shall be a standard strip of <u>40</u> mm high.
- 39. If potentials exceeding **600** volts are employed, a permanent warning sign shall be displayed in conspicuous places forbidding anyone to work on energized equipment or circuit.
- 40. At least <u>1</u> entrance of sufficient area shall be provided to give access to the working space about electrical equipment.
- 41. For equipment rated 1200 amperes or more and over 1900mm wide containing overcurrent devices, switching devices or control devices, there shall be one entrance not less than <u>600</u>mm wide and <u>2000</u>mm high at each end.
- **<u>42.</u>** <u>1</u> entrance to the working space is required where the required work space is doubled.
- 43. In all cases, where there are energized parts normally exposed on the front of switchboards, or motor control centers, the working space in front of such equipment shall not be less than **1000**mm.
- 44. **<u>1900</u>**mm is the minimum headroom of working spaces about service equipment, switchboard, panelboard, or motor control circuits.
- 45. **<u>500,000</u>** is the insulation resistance for circuits of 2.0mm<sup>2</sup> or 3.5mm conductors.
- 46. A wall, screen or fence less than 2500 mm in height shall not be considered as preventing access.
- 47. A minimum working space of **800** horizontally shall be provided where rear access is required to work on deenergized parts on the back of enclosed equipment.
- 48. Illumination shall be provided for all working spaces about service equipment, switchboards, etc. installed indoors except service equipments, panelboards in dwelling units that do not exceed **200** amperes.
- 49. Energized parts of electrical equipment operating at 50 volts or more shall be guard against accidental by having it elevated **2500**mm above the floor or other working surface.
- 50. <u>1.0</u> meg-ohm per thousand volts or fraction thereof is the minimum insulation resistance for voltage above 600 volts.
- 51. In all cases the workspace about equipment shall be adequate to permit at least a <u>90</u><sup>°</sup> degree opening of doors or hinged panel.

- **52. KEPT LOCKED** the entrances to all buildings, rooms, or enclosure containing exposed energized parts or exposed conductors operating over 600 volts.
- 53. The elevation of unguarded energized parts above working space if the nominal voltage between phases is 7501 35000 volts is **2800**mm.
- 54. Equipment is required to be installed and used according to its **LISTED AND LABELED** instructions.
- 55. All wiring shall be installed so that the completed system will be free from **SHORT CIRCUITS AND GROUNDS**.
- 56. Electrical equipment that depends on the <u>ARTIFICIAL COOLING AND CIRCULATION</u> principle of cooling exposed surfaces shall be installed so that airflow over such surface will not be prevented by walls or by adjacent installed equipment.
- 57. Sufficient access and <u>WORKING SPACE</u> shall be provided and maintained about all electrical equipment to permit ready and safe operation and maintenance of such equipment.
- 58. When live parts of electrical equipment are guarded by suitable permanent, substantial partitions, or screens, any opening such partitions or screens shall be sized and located that persons are not likely to cause into accidental contact with live parts or to bring <u>CONDUCTING OBJECTS</u> into contact with them.
- 59. Opening in ventilated dry type **TRANSFORMERS** or similar opening in other equipments over 600V shall be designed so that foreign objects inserted through these openings will be deflected from the energized parts.
- 60. Entrance to rooms and other guarded locations containing live parts marked conspicuous **WARNING SIGNS** forbidding unqualified persons to enter.
- 61. When normally enclosed live parts are exposed for inspection or servicing, a passageway in general open space shall be suitably **<u>GUARDED</u>**.
- 62. Concrete, brick, or tile shall be considered as **SHIELDED** as it applies to working space requirements.
- 63. Working space shall be measured from the **FRONT or OPENING** of equipment or apparatus if such are enclosed.
- 64. Warning sign for over 600 volts shall read "DANGER HIGH VOLTAGE KEEP OUT".
- 65. Working space hall not be used for **STORAGE**.
- 66. Unless otherwise specified, the live parts of electrical equipment operating at <u>50V</u> volts or more shall be guarded.

- 67. Entrances to rooms and other guarded locations containing exposed live parts shall be marked with <u>CONSPICUOUS</u> warning signs.
- 68. Circuits not exceeding 230 volts, nominal, between conductors shall be permitted to supply the <u>AUXILIARY EQUIPMENT OF ELECTRIC DISCHARGE LAMP and CORD and PLUG CONNECTED</u> <u>UTILIZATION EQUIPMENT</u>.
- <u>69.</u> Circuits exceeding 230 volts, nominal between conductors and not exceeding 277 volts, nominal, to ground shall be permitted to supply the <u>LISTED ELECTRIC DISCHARGE LUMINAIRES (lightning fixtures)</u>, <u>LISTED INCANDESCENT LUMINAIRES (lightning fixtures)</u>, <u>AUXILIARY EQUIPMENT</u> <u>OF ELECTRIC DISCHARGE LAMPS and CORD-AND-PLUG CONNECTED UTILIZATION EQUIPMENT</u>.
- 70. All 125-volt and/or 250-volts, single-phase, 15 and 20 amperes receptacles installed in BATHROOMS, COMMERCIAL AND INSTITUTIONAL KITCHEN, ROOFTOPS, AND OUTDOOR IN <u>PUBLIC PLACES</u> other than dwelling units shall have ground fault circuit interrupter protection for personnel.
- 71. In addition to the number of branch circuits required, at least one 20-ampere branch circuits shall be provided to supply the **LAUNDRY AND BATHROOM ONLY** receptacle outlets. This circuit shall have no other outlets.
- 72. **ARC FAULT CIRCUIT INTERRUPTER** is a device intended to provide protection from the effects of arc faults by recognizing the characteristics unique to arcing and by functioning to de-energized the circuit when an arc fault is detected.
- <u>73. JAN.1, 2014</u> is the effectivity of the requirement that all 115-volt and/or 230-volt, single –phase, 15 and 20 ampere branch circuits supplying outlets installed in dwelling bedrooms shall be protected by a listed arc-fault circuit interrupter, combination type installed to provide protection of the branch circuit.
- 74. 40 amperes is the minimum branch circuit rating for ranges of 8 <sup>3</sup>/<sub>4</sub> kW or more rating.
- <u>75.</u> Where a branch circuit supplies continuous load or any combination of continuous load, the minimum branch circuit conductors size before the application of any adjustment or correction shall have an allowable ampacity not less than noncontinuous load plus <u>125</u> percent of the continuous load.
- **<u>76.</u>** Where connected to a branch circuit having a rating in excess of <u>**20**</u> amperes, lampholders shall be of heavy-duty type.
- 77. A heavy duty lampholder shall not have a rating of not less than 660, 750 watts if of any other type.
- **<u>78.</u>** The rating of any one cord-and-plug-connected utilization equipment not fastened in place shall not exceed **<u>80</u>** percent of the branch circuit ampere rating.
- <u>79.</u> The total rating of utilization equipment fastened in place, other than luminaries shall not exceed <u>50</u> percent of the branch circuit ampere rating where lightning units, cord-and-plug-connected utilization equipment not fastened in place or both are also supplied.

- **<u>80.</u>** Branch circuit larger than **<u>50</u>** amperes shall supply only non lightning outlet loads.
- **<u>81.</u>** Appliance receptacle outlets installed in a dwelling unit for a specific appliances such as laundry equipment, shall be installed within **<u>1800</u>**mm of the intended location of the appliances.
- **82.** In kitchens and dining areas of dwelling units, a receptacle outlet shall be installed at each corner space wider than **300**mm.
- 83. Receptacles connected to circuits having different voltages, frequencies, or type of current on the same premises shall be of such design that the attachment plugs used on these circuit are not INTERCHANGEABLE.
- **<u>84. NONCOINCIDENT LOAD</u>** are loads that are unlikely to be use simultaneously.
- 85. For a dwelling unit having a floor area not more than 50 square meters, it shall be permitted to have single 20-A 2-wire branch circuit provided that the total load shall not exceed **<u>3,680</u>** volt-amperes.
- 86. 100% is the demand factor for air-conditioning load.
- 87. The equipment grounding conductors of a branch circuit shall be identified by a continuous **<u>GREEN</u>** color.
- 88. 24 volt-amperes per square shall be the unit lighting load for dwelling unit.
- 89. For show window lightning, a load of not less than <u>600</u> volt-amperes shall be included for each meter of show window measured horizontally along its base.
- 90. In each dwelling unit, the unit feeder load shall be computed at <u>1500</u> volt-amperes for each 2-wire small appliance branch circuit.
- 91. When using optional calculation method for a dwelling unit service, all other load above the initial 10 kW is to be assesses at <u>40</u>%.
- 92. Conduits bodies enclosing 14mm<sup>2</sup> conductors or smaller shall have a cross-sectional area **NOT LESS THAN TWICE** the cross-sectional area of the largest conduit to which it is attached.
- **<u>93.</u>** The grounded conductor of a branch circuit shall be identified by a continuous **WHITE OR GRAY** color.
- **<u>94.</u>** At least one receptacle outlet shall be installed directly above a show window for each <u><u>3</u> linear meters or major fraction thereof of show window area measured horizontally at its width.</u>
- 95. When connected to a branch circuit having a rating in excess of **20 A**, lampholders shall be of the heavy-duty type.
- 96. The rating of any one cord and a plug connected utilization equipment shall not exceed **<u>80</u>** percent of the branch circuit ampere rating.
- 97. In dwelling unit and guest rooms of hotels, motels, or similar occupancies shall not exceed <u>250</u> volts between conductors that supply the terminals of lampholders.

- 98. Ground- Fault Circuit Interrupter (GFCI\_protection for personnel as required for all 125-V or 250-V single-phase, 15 or 20 A receptacles that are installed in <u>GARAGE, BATHROOM and CRAWL</u> <u>SPACES</u>.
- 99. For receptacle outlets, each single or each multiple receptacle on one strap shall be considered at not less than **<u>180</u>** volt-amperes.
- 100. At least one receptacle outlet shall be installed in **BATHROOM, LAUNDRY AREA, BASEMENT AND GARAGE** area.