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Necquiz93

1. The NEC is _____.
 - a.) intended to be a design manual
 - b.) meant to be used as an instruction guide for untrained persons
 - c.) for the practical safeguarding of persons and property
 - d.) published by the Bureau of Standards
2. The *Code* contains provisions considered necessary for safety, which will not necessarily result in _____.
 - a.) efficient use
 - b.) convenience
 - c.) good service or future expansion of electrical use
 - d.) all of these
3. The following systems must be installed in accordance with the NEC:
 - a.) signaling
 - b.) communications
 - c.) power and lighting
 - d.) all of these
4. The *Code* does not cover installations in ships, watercraft, railway rolling stock, aircraft, or automotive vehicles.
 - a.) true
 - b.) false
5. Installations of communications equipment that are under the exclusive control of communications utilities, and located outdoors or in building spaces used exclusively for such installations _____ covered by the *Code*.
 - a.) are
 - b.) are sometimes
 - c.) are not sure
 - d.) might be
6. Service laterals installed by an electrical contractor must be installed in accordance with the *NEC*.
 - a.) true
 - b.) false
7. Utilities may be subject to compliance with the *codes* and standards covering their regulated activities as adopted under governmental law or regulations.
 - a.) true
 - b.) false
8. Chapters 1 through 4 of the *NEC* apply _____.
 - a.) generally to all electrical installations
 - b.) to special occupancies and conditions
 - c.) to special equipment and material
 - d.) all of these
9. The requirements in “Annexes” must be complied with.
 - a.) true
 - b.) false

10. The authority having jurisdiction is not required to enforce any requirements of Chapter 7 (Signaling Circuits) or Chapter 6 (Communications Circuits), because this is not within the scope of enforcement.
- a.) true
 - b.) false
11. A *Code* rule may be waived or alternative methods or installation approved that may be contrary to the NEC, if the authority having jurisdiction gives verbal or written consent.
- a.) true
 - b.) false
12. Explanatory material, such as references to other standards, references to related sections of the NEC, or information related to a *Code* rule, is included in the form of Fine Print Notes (FPNs).
- a.) true
 - b.) false
13. Compliance with either the metric or the inch-pound unit of measurement system is permitted.
- a.) true
 - b.) false
14. Capable of being reached quickly for operation, renewal, or inspections without resorting to portable ladders and such is known as ____.
- a.) accessible (equipment)
 - b.) accessible (writing methods)
 - c.) accessible, readily
 - d.) all of these
15. A junction box located above a suspended ceiling having removable panels is considered to be ____.
- a.) concealed
 - b.) accessible
 - c.) readily accessible
 - d.) recessed
16. A generic term for a group of nonflammable synthetic chlorinated hydrocarbons used as electrical insulating media is ____.
- a.) oil
 - b.) girasol
 - c.) askarel
 - d.) phenol
17. Where no statutory requirement exists, the authority having jurisdiction could be a property owner or his/ her agent, such as an architect or engineer.
- a.) true
 - b.) false
18. The connection between the grounded conductor and the equipment grounding conductor at the service is accomplished by installing a(n) ____ jumper.
- a.) main bonding
 - b.) bonding
 - c.) equipment bonding
 - d.) circuit bonding
19. The conductors between the final overcurrent protection device and the outlet(s) are known as the ____ conductors.
- a.) feeder
 - b.) branch-circuit
 - c.) home run

- d.) none of these
20. A branch circuit that supplies only one utilization equipment is a(n) ____ branch circuit.
- a.) individual
 - b.) general-purpose
 - c.) isolated
 - d.) special-purpose
21. The *Code* defines a(n) ____ as a structure that stands alone or that is cut off from adjoining structures by firewalls, with all openings therein protected by approved fire doors.
- a.) unit
 - b.) apartment
 - c.) building
 - d.) utility
22. ____ is a qualifying term indicating that there is a purposely-introduced delay in the tripping action of the circuit breaker, which decreases as the magnitude of the current increases.
- a.) Adverse-time
 - b.) Inverse-time
 - c.) Time delay
 - d.) Timed unit
23. NM cable is considered ____ if rendered inaccessible by the structure or finish of the building.
- a.) inaccessible
 - b.) concealed
 - c.) hidden
 - d.) enclosed
24. A separate portion of a conduit or tubing system that provides access through a removable cover(s) to the interior of the system at a junction of two or more sections of the system, or at a terminal point of the system, is defined as a(n) ____.
- a.) junction box
 - b.) accessible raceway
 - c.) conduit body
 - d.) pressure connector
25. A load is considered to be continuous if the maximum current is expected to continue for ____ or more.
- a.) ½ hour
 - b.) 1 hour
 - c.) 2 hours
 - d.) 3 hours
26. The ____ of any system is the ratio of the maximum demand of a system, or part of a system, to the total connected load of a system under consideration.
- a.) load
 - b.) demand factor
 - c.) minimum load
 - d.) computed factor
27. Which of the following does the *Code* recognize as a device?
- a.) Switch
 - b.) Light Bulb
 - c.) Transformer
 - d.) Motor
28. Constructed so that dust will not enter the enclosing case under specified test conditions is known as ____.

- a.) dusttight
 - b.) dustproof
 - c.) dust rated
 - d.) all of these
29. Varying duty is defined as ____.
- a.) intermittent operation in which the load conditions are regularly recurrent
 - b.) operation at a substantially constant load for and indefinite length of time
 - c.) operation for alternate intervals of load and rest, or load, no load, and rest
 - d.) operation at loads and for intervals, of time, both of which may be subject to wide variations.
30. Surrounded by a case, housing, fence, or wall(s) that prevents persons from accidentally contacting energized parts is called ____.
- a.) guarded
 - b.) covered
 - c.) protection
 - d.) enclosed
31. When the term exposed, as it relates to live parts, is used by the *Code*, it refers to ____.
- a.) capable of being inadvertently touched or approached nearer than a safe distance by a person.
 - b.) parts that are not suitable guarded, isolated, or insulated.
 - c.) wiring on, or attached to, the surface or behind panels designed to allow access.
 - d.) a and b.
32. The *Code* defines a _____ as: “all circuit conductors between the service equipment, the source of a separately derived system, or other power supply source and the final branch-circuit overcurrent device.”
- a.) feeder
 - b.) branch circuit
 - c.) service
 - d.) all of these
33. Connected to earth or to some conducting body that serves in place of the earth is called _____.
- a.) grounding
 - b.) bonded
 - c.) grounded
 - d.) all of these
34. _____ is defined as intentionally connected to earth through a ground connection or connections of sufficiently low impedance and having sufficient current-carrying capacity to prevent the buildup of voltages that may result in undue hazards to connected equipment or to persons.
- a.) Effectively grounded
 - b.) A proper wiring system
 - c.) lighting rod
 - d.) a grounded conductor
35. A “Class A” GFCI protection device is designed to de-energize the circuit when the ground-fault is approximately _____.
- a.) 4 mA
 - b.) 5 mA
 - c.) 6 mA
 - d.) any of these

36. A system intended to provide protection of equipment from damaging line-to-ground fault currents by operating to cause a disconnecting means to open all ungrounded conductors of the faulted circuit at levels less than the supply circuit overcurrent device is defined as _____.
a.) ground-fault protection of equipment
b.) guarded
c.) personal protection
d.) automatic protection
37. The grounding electrode conductor is the conductor used to connect the grounding electrode to the equipment grounding conductor and the grounded conductor at _____.
a.) the service
b.) each building or structure supplied by feeder(s)
c.) the source of a separately derived system
d.) all of these
38. A _____ is an accommodation that combines living, sleeping, sanitary, and storage facilities.
a.) guest room
b.) guest suite
c.) dwelling unit
d.) single family dwelling.
39. A hand hole enclosure is an enclosure identified for use in underground systems, provided with an open or closed bottom, and sized to allow personnel to ____, for the purpose of installing, operating, or maintaining equipment or wiring or both.
a.) enter and exit freely
b.) reach into but not enter
c.) have full working space
d.) examine visually
40. Recognized as suitable for the specific purpose, function, use environment, and application is the definition of _____.
a.) labeled
b.) identified (as applied to equipment)
c.) listed
d.) approved
41. _____ means that an object is not readily accessible to persons unless special means for access are used.
a.) isolated
b.) secluded
c.) protected
d.) locked
42. An outlet intended for the direct connection of a lamp holder, a luminaire, or a pendant cord terminating in a lamp holder is a(n) _____.
a.) outlet
b.) receptacle outlet
c.) lighting outlet
d.) general-purpose outlet
43. A _____ location may be temporarily subject to dampness and wetness.
a.) dry
b.) damp
c.) moist
d.) wet
44. The term “luminaire” includes “fixture(s)” and “lighting fixture (s).”

- a.) True
 - b.) False
45. A(n) is a point on the wiring system at which current is taken to supply utilization equipment.
- a.) box
 - b.) receptacle
 - c.) outlet
 - d.) device
46. Outline lighting may not include light sources such as light emitting diodes (LEDs).
- a.) True
 - b.) False
47. An overload is the same thing as a short circuit or ground fault.
- a.) True
 - b.) False
48. The *Code* defines a(n) as one familiar with the construction and operation of the electrical equipment and installations, and who has received safety training on the hazards involved.
- a.) inspector
 - b.) master electrician
 - c.) journeyman electrician
 - d.) qualified person
49. Something constructed, protected, or treated so as to prevent rain from interfering with the successful operation of the apparatus under specified test conditions is defined as _____.
- a.) rain tight
 - b.) waterproof
 - c.) weathertight
 - d.) rainproof
50. A contact device installed at an outlet for the connection of an attachment plug is known as a(n) _____.
- a.) attachment point
 - b.) tap
 - c.) receptacle
 - d.) wall plug
51. When one electrical circuit controls another circuit through a relay, the first circuit is called a _____.
- a.) control circuit
 - b.) remote-control circuit
 - c.) signal circuit
 - d.) controller.
52. A(n) _____ system is a premises wiring system whose power is derived from a source of electric energy or equipment other than a service, and that has no direct electrical connection, including a solidly connected grounded circuit conductor, to supply conductors originating in another system.
- a.) separately derived
 - b.) classified
 - c.) direct
 - d.) emergency
53. Overhead-service conductors from the last pole or other aerial support to and including the splices, if any, are called _____ conductors.
- a.) service-entrance
 - b.) service-drop
 - c.) service
 - d.) overhead service

54. The _____ is the necessary equipment, usually consisting of a circuit breaker(s) or switch(es) and fuse(s) and their accessories, connected to the load end of service conductors to a building or other structure, or an otherwise designated area, and intended to constitute the main control and cutoff of the supply.
- a.) service equipment
 - b.) service
 - c.) service disconnect
 - d.) service overcurrent protection device
55. The _____ is the point of connection between the facilities of the serving utility and the premises wiring.
- a.) service entrance
 - b.) service point
 - c.) overcurrent protection
 - d.) beginning of the wiring system
56. The combination of all components and subsystems that convert solar energy into electrical energy is called a _____ system.
- a.) solar
 - b.) solar voltaic
 - c.) separately derived source
 - d.) solar photovoltaic
57. A _____ switch is a manually operated device used in conjunction with a transfer switch to provide a means of directly connecting load conductors to a power source, and of disconnecting the transfer switch.
- a.) transfer
 - b.) motor-circuit
 - c.) general-use snap
 - d.) bypass isolation
58. An isolating switch is one that is _____.
- a.) not readily accessible to persons unless special means for access is used.
 - b.) capable of interrupting the maximum operating overload current of a motor
 - c.) intended for use in general distribution and branch circuits
 - d.) intended for isolating an electrical circuit from the source of power
59. A thermal protector may consist of one or more heat-sensing elements integral with the motor or motor-compressor and an external control device.
- a.) True
 - b.) False
60. The voltage of a circuit is defined by the *Code* as the _____ root-mean-square (effective) difference of potential between any two conductors of the circuit.
- a.) lowest
 - b.) greatest
 - c.) average
 - d.) nominal
61. An enclosure or device constructed so that moisture will not enter the enclosure or device under specific test conditions is called _____.
- a.) watertight
 - b.) Moistureproof
 - c.) waterproof
 - d.) rainproof
62. In determining equipment to be installed, considerations such as the following should be evaluated:

- a.) mechanical strength
 - b.) cost
 - c.) Arcing effects
 - d.) a and c
63. To be *Code*-compliant, listed or labeled equipment must be installed and used in accordance with any instructions included in the _____.
- a.) catalog
 - b.) product
 - c.) listing or labeling
 - d.) all of these
64. Conductor sizes are expressed in American Wire Gage (AWG) or in_____.
- a.) in
 - b.) circular mils
 - c.) square inch
 - d. AWG
65. A wiring method included in the *Code* is recognized as being a(n) _____ wiring method.
- a.) expensive
 - b.) efficient
 - c.) suitable
 - d.) cost-effective
66. Circuit-protective devices are used to clear a fault without the occurrence of extensive damage to the electrical components of the circuit. Faults can occur between two or more of the _____ or between any circuit conductor and the grounding conductor or enclosing metal raceway.
- a.) bonding jumpers
 - b) grounding jumpers
 - c.) wiring harnesses
 - d.) circuit conductors
67. Unless identified for use in the operating environment, no conductors or equipment can be _____ having a deteriorating effect on the conductors or equipment.
- a.) located in damp or wet locations
 - b.) exposed to fumes, vapors, or gases
 - c.) exposed to liquids or excessive temperatures
 - d.) all of these
68. Some cleaning and lubricating compounds contain chemicals that cause severe deteriorating reactions with plastics.
- a.) True
 - b.) False
69. Accepted industry workmanship practices are described in ANSI/NECA 1-2000, Standard Practices for Good Workmanship in electrical Contracting, and other ANSI approved installation standards.
- a.) True
 - b.) False
70. Conductors must be_____ to provide ready and safe access in underground and subsurface enclosures into which persons enter for installation and maintenance.
- a.) bundled
 - b.) tied together
 - c.) color-coded
 - d.) racked

71. For mounting electrical equipment on a masonry wall, it is acceptable to drill a hole in the masonry and drive a wooden plug into the hole, then use sheet rock screws drilled into the wooden plug.

- a.) True
- b.) False

72. Many terminations and equipment are marked with _____.

- a.) an etching tool
- b.) a removable label
- c.) a tightening torque
- d.) the manufacturer's initials

73. Connection by means of wire-binding screws studs, or nuts having upturned lugs or the equivalent are permitted for _____ smaller conductors.

- a.) 10 AWG
- b.) 8 AWG
- c.) 6 AWG
- d.) none of these

74. The temperature rating associated with the ampacity of a _____ must be so selected and coordinated so as not to exceed the lowest temperature rating of any connected termination, conductor, or device.

- a.) terminal
- b.) conductor
- c.) device
- d.) all of these

75. For circuits rated 100A or less, when the equipment terminals are listed for use with 75°C conductors, the _____ column of Table 310.16 must be used to determine the ampacity of THHN conductors installed.

- a.) 60°C
- b.) 75°C
- c.) 30°C
- d.) 90°C

76. Conductors must have their ampacity determined using the _____ column of Table 310.16 for circuits rated over 100A, or marked for conductors larger than 1 AWG unless the equipment terminals are listed for use with higher temperature rated conductors.

- a.) 60°C
- b.) 75°C
- c.) 30°C
- d.) 90°C

77. On a _____ secondary where the midpoint of one phase winding is grounded, the phase conductor having the higher voltage-to-ground must be identified by an outer finish that is orange in color, or by tagging or other effective means, Such identification must be placed at each point where a connection is made if the grounded conductor is also present.

- a.) 1-phase, 3-wire
- b.) 3-phase, 4-wire delta-connected
- c.) 3-phase, 4-wire wye-connected
- d.) 3-phase, 3-wire delta connected

78. Identification of the high leg of a 3-phase, 4-wire delta connected system is required _____.

- a.) at the service disconnect only
- b.) at each point on the system where a connection is made if the equipment grounding conductor is also present

- c.) at each point on the system where a connection is made if the grounding electrode conductor is also present
- d.) at each point on the system where a connection is made if the grounded conductor is also present

79. Switchboards, panelboards, industrial control panels, meter socket enclosures, and motor control centers in commercial and industrial occupancies that are likely to require _____ while energized must be field marked to warn qualified persons of the danger associated with an arc flash from line-to-line or ground faults.

- a.) examination
- b.) adjustment
- c.) servicing or maintenance
- d.) a, b, or c

80. Each disconnecting means must be legibly marked to indicate its purpose unless located and arranged so _____.

- a.) that they can be locked out and tagged
- b.) they are not readily accessible
- c.) the purpose is evident
- d.) that they operate at less than 300 volts-to-ground

81. Sufficient access and _____ must be provided and maintained about all electrical equipment to permit ready and safe operation and maintenance of such equipment.

- a.) ventilation
- b.) cleanliness
- c.) circulation
- d.) working space

82. Working-space distances for enclosed live parts must be measured from the _____ of equipment or apparatus, if such are enclosed.

- a.) enclosure
- b.) opening
- c.) a or b
- d.) none of these

83. The minimum working clearance on a circuit that is 120V to ground, with exposed live parts on one side and no live or grounded parts on the other side of the working space, is _____.

- a.) 1 ft
- b.) 3 ft
- c.) 4ft
- d.) 6 ft

84. Concrete, brick, or tile walls are considered as _____, as it applies to working-space requirements.

- a.) inconsequential
- b.) in the way
- c.) grounded
- d.) none of these

85. The working space in front of the electric equipment must not be less than _____ wide, or the width of the equipment, whichever is greater.

- a.) 15 in.
- b.) 30 in.
- c.) 40 in.
- d.) 60 in.

86. When normally-enclosed live parts are exposed for inspection or servicing, the working space, if in passageway or general open space, must be suitably_____.
- a.) accessible
 - b.) guarded
 - c.) open
 - d.) enclosed.
87. For equipment rated 1,200A or more that contains overcurrent devices, switching devices, or control devices, at least one entrance, measuring not less than 24 in. wide and 6 ½ ft high, must be provided at each end of the working space. Where the entrance to the working space has a personnel door, the door_____.
- a.) must open either in or out with simple pressure and must not have any lock
 - b.) must open in the direction of egress and be equipped with panic hardware or other devices so the door can open under simple pressure.
 - c.) must be removed
 - d.) must be equipped with an electronic opener
88. Illumination must be provided for all working spaces about service equipment, switchboards, panelboards, and motor control centers _____.
- a.) over 600V
 - b.) located indoors
 - c.) Rated 1,200 amperes or more
 - d.) Using automatic means of control
89. The minimum headroom for working spaces about service equipment, switchboards, panelboards, or motor control centers must be 6 12 ft. except for service equipment or panelboards in existing dwelling units that do not exceed 200 A.
- a.) True
 - b.) False
90. Heating, cooling, or ventilating equipment (including ducts) that service the electrical room or space cannot be installed in the dedicated space above a panelboard or switchboard.
- a.) True
 - b.) False
91. Unless specified otherwise, live parts of electrical equipment operating at _____or more must be guarded.
- a.) 12V
 - b.) 15V
 - c.) 50V
 - d.) 24V
92. Live parts of electrical equipment operating at _____or more must be guarded against accidental contact by approved enclosures or by suitable permanent, substantial partitions, or screens arranged so that only qualified persons have access to the space within reach of the live parts
- a.) 20V
 - b.) 30V
 - c.) 50V
 - d.) 100V
93. Entrances to rooms and other guarded locations containing exposed live parts must be marked with conspicuous _____ forbidding unqualified persons to enter.
- a.) warning signs
 - b.) alarms
 - c.) a and b
 - d.) neither a nor b

NEC Quiz 93 -Answer Sheet

1	a b c d	31	a b c d	61	a b c d	91	a b c d
2	a b c d	32	a b c d	62	a b c d	92	a b c d
3	a b c d	33	a b c d	63	a b c d	93	a b c d
4	a b c d	34	a b c d	64	a b c d		
5	a b c d	35	a b c d	65	a b c d		
6	a b c d	36	a b c d	66	a b c d		
7	a b c d	37	a b c d	67	a b c d		
8	a b c d	38	a b c d	68	a b c d		
9	a b c d	39	a b c d	69	a b c d		
10	a b c d	40	a b c d	70	a b c d		
11	a b c d	41	a b c d	71	a b c d		
12	a b c d	42	a b c d	72	a b c d		
13	a b c d	43	a b c d	73	a b c d		
14	a b c d	44	a b c d	74	a b c d		
15	a b c d	45	a b c d	75	a b c d		
16	a b c d	46	a b c d	76	a b c d		
17	a b c d	47	a b c d	77	a b c d		
18	a b c d	48	a b c d	78	a b c d		
19	a b c d	49	a b c d	79	a b c d		
20	a b c d	50	a b c d	80	a b c d		
21	a b c d	51	a b c d	81	a b c d		
22	a b c d	52	a b c d	82	a b c d		
23	a b c d	53	a b c d	83	a b c d		
24	a b c d	54	a b c d	84	a b c d		
25	a b c d	55	a b c d	85	a b c d		
26	a b c d	56	a b c d	86	a b c d		
27	a b c d	57	a b c d	87	a b c d		
28	a b c d	58	a b c d	88	a b c d		
29	a b c d	59	a b c d	89	a b c d		
30	a b c d	60	a b c d	90	a b c d		

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