Instructions: **Fee $20**

1. Print these pages.
2. Circle the correct answers and transfer them to the answer sheet.
3. Page down to the last page for the verification forms and mailing instructions.
4. Use the 2014 & 2011 NEC as your reference materials & search for the grey code change areas.
5. All questions are listed in straight order (not random order) throughout the complete quiz.

**Course: 16929 2014 NEC Changes PART 1**

**This course is valid for these credentials:**

| Credential Description | Cred Code | Credit Hours |
|---|---|---|
| Registered/Beginner Electrician | BE | 2.0 |
| Commercial Electrical Inspector | CEI | 2.0 |
| Industrial Journeyman Electrician | IJE | 2.0 |
| Journeyman Electrician | JE | 2.0 |
| Master Electrician | ME | 2.0 |
| Residential Journeyman Electrician | RJE | 2.0 |
| Residential Master Electrician | RME | 2.0 |
| UDC-Electrical Inspector | UEI | 2.0 |

## 2014 NEC Changes Part 1

1. **90.1 (A)** _____**.**The purpose of this *Code* is the practical safeguarding of persons and property from hazards arising from the use of electricity.
   a. Practical Safeguard
   b. Purpose
2. This *Code* is intended as a design specification or an instruction manual for untrained persons.
   a. true
   b. false

**100 Definitions:**

3. Power conversion equipment that provides a means of adjusting the speed of an electric motor. Defines ___.
   a. Adjustable Speed Drive
   b. Adjustable Speed Drive System
4. A combination of an adjustable speed drive, its associated motor(s), and auxiliary equipment. Defines _____.
   a. Adjustable Speed Drive
   b. Adjustable Speed Drive System
5. A _____ is one type of electronic adjustable speed drive that controls the rotational speed of an ac electric motor by controlling the frequency and voltage of the electrical power supplied to the motor.
   a. adjustable speed drive
   b. variable speed drive
   c. variable frequency drive
   d. none of the above
6. The circuit of a control apparatus or system that carries the electric signals directing the. Performance of the controller but does not carry the main power current. Defines_____.
   a. motor control circuit
   b. control circuit
   c. variable speed drive
   d. variable frequency drive
7. Coordination (Selective). Localization of an overcurrent condition to restrict outages to the circuit or equipment affected, accomplished by the _____of overcurrent protective devices and their ratings or settings for the full range of available overcurrents, from overload to the maximum available fault current, and for the fun range of overcurrent protective device· opening times associated with those overcurrents.

a. choice
b. selection
c. installation
d. both b & c

8. Device. A unit of an electrical system, including a conductor that carries or controls electric energy as its principal function.
a. true
b. false

9. Effective Ground-Fault Current Path. An intentionally constructed, low-impedance electrically conductive path designed and intended to carry current under ground-fault conditions from the point of a ground fault on a wiring system to the electrical supply source and that facilitates the operation of the overcurrent protective device or ground-fault detectors. This definition was relocated to article _____.
a. 100
b. 110
c. 250.2
d. none of the above

10. Effective Ground-Fault Current Path. An intentionally constructed, low-impedance electrically conductive path designed and intended to carry current under ground-fault conditions from the point of a ground fault on a wiring system to the electrical supply source and that facilitates the operation of the overcurrent protective device or ground-fault detectors. The “on high-impedance grounded systems” was _____.
a. amended
b. removed
c. both a & b
d. none of the above

11. Intersystem Bonding Termination. A device that provides a means for connecting bonding conductors for communications systems to the _____electrode system.
a. bonding
b. grounding
c. concrete incased
d. none of the above

12. Intersystem Bonding Termination. This includes the bonding of _____.
a. communications
b. gas pipe
c. CSST
d. all of the above

13. 2014 NEC definition for “Premises Wiring” added the _____.
a. definition
b. definition and information note
c. informational note
d. none of the above

14. Premises wiring power sources include, but are not limited to:
a. interconnected batteries
b. stand-alone batteries
c. both a & b
d. none of the above

15. Premises wiring power sources include, but are not limited to:
a. solar photovoltaic
b. generators
c. both a & b
d. none of the above

16. The definition for Raceway was amended to _____ the listing of allowed raceways.
a. include
b. exclude

17. A raceway is identified within specific article definitions.
a. true
b. false

18. Accessible, Readily (Readily Accessible). Capable of being reached quickly for operation, renewal, or inspections without requiring those to whom ready access is requisite to _____, to climb over or remove obstacles, or to resort to portable ladders, and so forth.

a. actions such as to use flashlights
b. actions such as to use safety glasses
c. actions such as to use tools
d. none of the above

19. Retrofit Kit. A general term for a complete subassembly of parts and devices for field conversion of utilization equipment. This definition was _____.
a. amended
b. added
c. deleted
d. relocated

20. Separately Derived System. An electrical source, other than a service, having no direct connection(s) to circuit conductors of any other electrical source other than those established by grounding and bonding connections. This definition was _____.
a. amended
b. added
c. deleted
d. none of the above

21. Substation. An enclosed assemblage of equipment (e.g. switches, interrupting devices, circuit breakers, buses, and transformers) through which electric energy is passed for the purpose of distribution, switching, or modifying its characteristics. This definition was _____ to article 100.
a. amended
b. added
c. deleted
d. none of the above

22. The definition of “metal enclosed power switchgear” was revised to “switchgear”.
a. true
b. false

23. All switchgear subject to *NEC* requirements is metal enclosed. Switchgear rated below 1000 V or less may be identified as "_____”.
a. low-voltage power circuit breaker switchgear
b. metal-enclosed switchgear
c. metal-clad switchgear
d. both b & c

24. Switchgear rated over 1000 V may be identified as "_____".
a. low-voltage power circuit breaker switchgear
b. metal-enclosed switchgear
c. metal-clad switchgear
d. both b & c

25. Switchgear is available in _____constructions
a. non-arc-resistant
b. arc-resistant
c. both a & b
d. none of the above

26. 110.16 Arc-Flash Hazard Warning. Electrical equipment, such as _____, that are in other than dwelling units, and are likely to require examination, adjustment, servicing, or maintenance while energized, shall be marked to warn qualified persons of potential electric arc flash hazards.
a. switchboards
b. switchgear
c. panelboards
d. all of the above

27. 110.16 Arc-Flash Hazard Warning. Electrical equipment, such as _____, that are in other than dwelling units, and are likely to require examination, adjustment, servicing, or maintenance while energized, shall be marked to warn qualified persons of potential electric arc flash hazards.
a. industrial control panels
b. meter socket enclosures
c. motor control centers
d. all of the above

28. The markings shall be _____marked to warn qualified persons of potential electric arc flash hazards.
a. field

b. factory
c. both a & b
d. none of the above

29. The marking shall meet the requirements in _____ and shall be located so as to be clearly visible to qualified persons before examination, adjustment, servicing, or maintenance of the equipment.
a. 110.21(A)
b. 110.21(B)
c. 110.21(C)
d. 110.21(D)

30. 110.21 (B) Marking. Field-Applied Hazard Markings. This subsection was _____ to this article.
a. amended
b. added
c. deleted
d. none of the above

31. (B) Field-Applied Hazard Markings. Where _____ are required by this *Code,* the labels shall meet the following requirements.
a. caution
b. warning
c. both a & b
d. none of the above

32. (B) Field-Applied Hazard Markings. Where _____ are required by this *Code,* the labels shall meet the following requirements.
a. danger signs
b. labels
c. both a & b
d. none of the above

33. (1) The marking shall adequately warn of the hazard using effective_____.
a. words
b. colors
c. symbols
d. all of the above

34. (2) The label shall be permanently affixed to the equipment or wiring method and may be hand written.
a. true
b. false

35. *Exception to* (2): *Portions* (d *labels or markings that are variable, or that could be* subject *to changes, shall be permitted to be hand written and shall be legible.*
a. true
b. false

36. (3) The label shall be of sufficient durability to withstand the _____ involved.
a. environment
b. atmosphere
c. milieu
d. all of the above

37. Informational Note: ANSI _____, *Product Safety Signs and Labels,* provides guidelines for the design and durability of safety signs and labels for application to electrical equipment.
a. Z535.4-2011
b. Z535.4-2012
c. Z535.4-2013
d. all of the above

38. 110.24 Available Fault Current. (A) Field Marking. Service equipment in other than dwelling units shall be legibly marked in the field with the maximum available fault current. The field marking(s) shall include the ___ the fault-current calculation was performed and be of sufficient durability to withstand the environment involved.
a. location
b. area
c. date
d. all of the above

39. Informational Note: The available fault-current marking(s) addressed in _____ is related to required shortcircuit current ratings of equipment. *NFPA 70E-2012, Standard for Electrical Safety ill the Workplace,*

provides assistance in determining the severity of potential exposure, planning safe work practices, and selecting personal protective equipment.

a. 110.24
b. 110.25
c. 110.26
d. 110.27

40. 110.25 Lockable Disconnecting Means was _____ in article 110.

a. amended
b. added
c. deleted
d. none of the above

41.110.25 Lockable Disconnecting Means. Where a disconnecting means is required to be lockable open elsewhere in this *Code,* it shall be capable of being locked in the _____ position.

a. closed
b. neutral
c. open
d. all of the above

42. The provisions for locking shall remain in place _____ the lock installed.

a. with
b. without
c. both a & b
d. none of the above

43. Exception: Cord-and-plug connection locking provisions shall be required to remain in place without the lock installed.

a. true
b. false

44. 110.26(C)(3) Personnel Doors. Required where equipment rated _____ amps or more that contains overcurrent devices, switching devices, or control devices is installed.

a. 600
b. 800
c. 1200
d. all of the above

45. 110.26(C)(3) Personnel Doors when required. Required where there is a personnel door(s) intended for entrance to and egress from the working space less than _____ from the nearest edge of the working space,

a. 7.6 m
b. 25 ft.
c. both a & b
d. none of the above

46. 110.26(C)(3) Personnel Doors when required the door(s) shall open in the direction of _____.

a. ingress
b. egress
c. both a & b
d. none of the above

47. 110.26(C)(3) Personnel Doors when required the door(s) shall be equipped with listed _____ hardware.

a. lever latch
b. key pad
c. panic
d. round style

48. 110.26(E) Dedicated Equipment Space. All _____ shall be located in dedicated spaces and protected from damage.

a. switchboards
b. switchgear
c. both a & b
d. none of the above

49. 110.26(E) Dedicated Equipment Space. All _____ shall be located in dedicated spaces and protected from damage.

a. panelboards
b. motor control centers

c. both a & b
d. none of the above

50. (2) Outdoor. Outdoor installations shall comply with _____.
a. 110.26(E)(2)(a)
b. 110.26(E)(2)(b)
c. both a & b
d. none of the above

51. (b) *Dedicated Equipment Space.* The space equal to the width and depth of the equipment, and extending from grade to a height of _____ above the equipment.
a. 1.8 m
b. 6 ft.
c. both a & b
d. none of the above

52. (b) *Dedicated Equipment Space* shall be dedicated to the electrical installation. _____foreign to the electrical installation shall be located in this zone.
a. No piping
b. No other equipment
c. both a & b
d. none of the above

53. 110.27 (A) Live Parts Guarded Against Accidental Contact. Except as elsewhere required or permitted by this *Code,* live parts of electrical equipment operating at 50 volts or more shall be guarded against accidental contact by approved enclosures or by any of the following means: (4) By elevation above the floor or other working surface as shown in _____
a. 110.27(A)(4)(a)
b. 110.27(A)(4)(b)
c. both a & b
d. none of the above

54. (4) By elevation above the floor or other working surface shall be _____.
a. A minimum of 8 ft. for 50 to 300 volts
b. A minimum of 2.5 m for 50 to 300 volts
c. both a & b
d. none of the above

55. (4) By elevation above the floor or other working surface shall be _____.
a. A minimum of 2.5 m (8 ft.) for 301 to 600 volts
b. A minimum of 2.6 m (8 1/2 ft.) for 50 to 300 volts
c. both a & b
d. none of the above

56. 200.4 Neutral Conductors. Neutral conductors shall be installed in accordance with _____.
a. 200.4(A)
b. 200.4(B)
c. both a & b
d. none of the above

57. (A) Installation. Neutral conductors shall not be used for more than ____ branch circuit, for more than one multiwire branch circuit, or for more than one set of ungrounded feeder conductors unless specifically permitted elsewhere in this *Code.*
a. one
b. two
c. both a & b
d. none of the above

58. (B) Multiple Circuits. Where more than one neutral conductor associated with different circuits is in an enclosure, grounded circuit conductors of each circuit shall be identified or grouped to correspond with the ungrounded circuit conductor(s) by _____in at least one location within the enclosure.
a. wire markers
b. cable ties
c. both a & b
d. none of the above

*59. Exception No.1: The requirement for _____ shall not apply if the branch-circuit or feeder conductors enter from a cable or a raceway unique to the circuit that makes the grouping obvious.*
*a. grouping*

*b. identifying*
*c. both a & b*
*d. none of the above*

*60. Exception No.2: The requirement for grouping or identifying shall not apply where branch-circuit conductors pass through a box or conduit body _____.*

*a. without a loop as described in 314.16(B)(1)*
*b. without a splice or termination*
*c. both a & b*
*d. none of the above*

## 2014 NEC Changes Part 1-Quiz Answer Sheet

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | a | b | c | d | 21 | a | b | c | d | 41 | a | b | c | d |
| 2 | a | b | c | d | 22 | a | b | c | d | 42 | a | b | c | d |
| 3 | a | b | c | d | 23 | a | b | c | d | 43 | a | b | c | d |
| 4 | a | b | c | d | 24 | a | b | c | d | 44 | a | b | c | d |
| 5 | a | b | c | d | 25 | a | b | c | d | 45 | a | b | c | d |
| 6 | a | b | c | d | 26 | a | b | c | d | 46 | a | b | c | d |
| 7 | a | b | c | d | 27 | a | b | c | d | 47 | a | b | c | d |
| 8 | a | b | c | d | 28 | a | b | c | d | 48 | a | b | c | d |
| 9 | a | b | c | d | 29 | a | b | c | d | 49 | a | b | c | d |
| 10 | a | b | c | d | 30 | a | b | c | d | 50 | a | b | c | d |
| 11 | a | b | c | d | 31 | a | b | c | d | 51 | a | b | c | d |
| 12 | a | b | c | d | 32 | a | b | c | d | 52 | a | b | c | d |
| 13 | a | b | c | d | 33 | a | b | c | d | 53 | a | b | c | d |
| 14 | a | b | c | d | 34 | a | b | c | d | 54 | a | b | c | d |
| 15 | a | b | c | d | 35 | a | b | c | d | 55 | a | b | c | d |
| 16 | a | b | c | d | 36 | a | b | c | d | 56 | a | b | c | d |
| 17 | a | b | c | d | 37 | a | b | c | d | 57 | a | b | c | d |
| 18 | a | b | c | d | 38 | a | b | c | d | 58 | a | b | c | d |
| 19 | a | b | c | d | 39 | a | b | c | d | 59 | a | b | c | d |
| 20 | a | b | c | d | 40 | a | b | c | d | 60 | a | b | c | d |

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Credential Number_____Phone#_____

Course Title and Name 2014 NEC Changes Part 1 Course ID# 16929

List the name of each credential held by attendee_____

_____Credited 2 hrs

Email address_____

Fax#_____Course Fee $20

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Instructor's signature _____