

When you have completed your exam and reviewed your answers, click **Submit Exam**. Answers will not be recorded until you hit **Submit Exam**. If you need to exit before completing the exam, click **Cancel Exam**.

**Questions 1 to 20:** Select the best answer to each question. Note that a question and its answers may be split across a page break, so be sure that you have seen the *entire* question and *all* the answers before choosing an answer.

**1.** The *NEC* states that the neutral conductor of a three-wire branch circuit supplying a household electric range with a maximum demand of 8.75 kW shall be permitted to be smaller than the ungrounded conductors. However, the neutral ampacity shall not be less than \_\_\_\_\_ percent of the branch-circuit rating and shall *not* be smaller than 10 AWG.

- A. 50
- B. 8.75
- C. 70
- D. 30

**2.** The *NEC* requires that 15-ampere and 20-ampere receptacles that serve the countertop of a wet bar must be GFI protected when located within \_\_\_\_\_ feet of the wet-bar sink's outer edge.

- A. 3
- B. 6
- C. 10
- D. 8

**3.** Two electricians are discussing outdoor receptacles. Electrician A says that one receptacle is required in the front and back of all dwelling types. Electrician B says the plans call for mounting the rear outdoor receptacle outlet 6 feet 6 inches from the outside edge of a deck. Which of the following statements is *correct*?

- A. Neither electrician is correct.
- B. Only Electrician A is correct.
- C. Only Electrician B is correct.
- D. Both electricians are correct.

**4.** The *NEC* requires the grounded conductor of a/an \_\_\_\_\_ AWG or smaller diameter with a solid-color insulation be identified with by a continuous white or gray outer finish along its entire length.

- A. 4
- B. 6
- C. 3
- D. 8

**5.** A floor receptacle that is more than \_\_\_\_\_ inches from a wall shouldn't be included in the number of required outlets for a given wall space.

- A. 18
- B. 36
- C. 20
- D. 24

6. For a receptacle to serve the countertop of a kitchen island, the maximum distance it may be placed below the countertop is \_\_\_\_\_ inches.

- A. 10
- B. 8
- C. 12
- D. 4

7. In dwelling units the maximum allowable voltage between conductors that supply lighting fixtures is

- A. 120V
- B. 220V
- C. 110V
- D. 115V

8. Two electricians are discussing feeders that supply branch circuits. Electrician A says that the AHJ can request a drawing that indicates conductor size and other details. Electrician B says that a GFPE must be included as part of the 500A feeder disconnect. Which of the following statements is *correct*?

- A. Only Electrician A is correct.
- B. Neither electrician is correct.
- C. Only Electrician B is correct.
- D. Both electricians are correct.

9. An unintentional electrical path that is conducting current from an ungrounded conductor to a normally non-current carrying metal raceway would be defined as a ground

- A. conductor.
- B. fault.
- C. electrode.
- D. interrupter.

10. If an electrical system requires human intervention to disconnect power from a device that system would be defined as

- A. qualified.
- B. separately derived.
- C. isolated.
- D. nonautomatic.

11. Which of the following protection devices are designed to detect potentially damaging arcing?

- A. GECs
- B. GFPE

- C. AFCI
- D. GFCI

**12.** If a refrigerator is connected to a branch circuit rated at 20 A and that branch circuit supplies additional devices, what is the maximum current the refrigerator can require in this circuit?

- A. 12A
- B. 10A
- C. 16A
- D. 14A

**13.** Labeled equipment must be installed and used according to the

- A. published approvals.
- B. design specifications.
- C. instructions provided.
- D. Underwriters Laboratories.

**14.** Which of the following is *not* a requirement related to working space for equipment rated over 600 V?

- A. Four feet minimum depth of clear working space for Condition 2 installations
- B. Warning signs indicating high voltage
- C. All access must be a door
- D. Minimum front working space distances

**15.** What is the minimum copper conductor size for a 30 A circuit with 4 receptacles?

- A. 10 A WG
- B. 8 A WG
- C. 14 A WG
- D. 12 A WG

**16.** Two electricians are discussing branch circuits. Electrician A says that a receptacle installed specifically for a dishwasher must be within 6 feet of that appliance. Electrician B says that an outlet that is built-into a range top counts as a receptacle for that counter space. Which of the following statements is *correct*?

- A. Both electricians are correct.
- B. Neither electrician is correct.
- C. Only Electrician A is correct.
- D. Only Electrician B is correct.

**17.** Which of the following terms, common in many types of building codes and code enforcement, refers to the local building official responsible for the enforcement of the *NEC*?

- A. NFPA
- B. OSHA
- C. ANSI
- D. AHJ

**18.** The *NEC* requires that a device terminal intended for the grounded conductor be identified by a metal coating substantially white in color or the word \_\_\_\_\_ located adjacent to the terminal.

- A. grounded
- B. connected
- C. danger
- D. white

**19.** A system or circuit conductor that is intentionally grounded is said to be

- A. a lightning rod.
- B. effectively grounded.
- C. a proper wiring system.
- D. a grounded conductor.

**20.** A *NEC* rule would be considered to be permissive if it contained which of the following phrases?

- A. Shall be required
  - B. May not be adequate
  - C. May not meet
  - D. Shall not be required
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End of exam