

Exam: 006827RR - Loads, Service, and Overcurrent Protection

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. When making a load calculation, the *NEC* permits you to round to the nearest whole ampere, dropping decimal fractions smaller than

- A. 0.50.
- B. 0.75.
- C. 0.25.
- D. 0.49.

2. Two electricians are discussing conductors. Electrician A says that the maximum rated voltage, the conductor type, and the AWG size must be marked on a conductor. Electrician B says that copper-clad aluminum conductors will have a higher ampacity rating than an equal sized copper conductor. Which of the following statements is *correct*?

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

3. The calculating load requirements for a single-family dwelling, which of the following would *not* be considered in the fixed-appliance calculation?

- A. Food disposer
- B. Dryer
- C. Dishwasher
- D. Water heater

4. Which of the following is *not* considered service equipment?

- A. Disconnecting means
- B. Circuit breakers
- C. Panelboards
- D. Meter socket enclosures

5. The *NEC* states that service-drop conductors with voltage limited to 300 volts to ground shall have a minimum of _____ feet vertical clearance from final grade over residential property, driveways, and those commercial areas not subject to truck traffic.

- A. 12

- B. 20
- C. 18
- D. 15

6. The *NEC* requires that each service disconnecting means be suitable for

- A. the prevailing conditions.
- B. disconnecting the meter.
- C. wet conditions.
- D. hazardous locations.

7. Two electricians are discussing Edison-Base fuses. Electrician A says that he plans to install them in a new building where no circuit is over 125 volts or 30 amperes. Electrician B says that when replacing an existing installation, you must check for tampering. Which of the following statements is *correct*?

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

8. A one-family dwelling contains an electric range rated at 25 kW. What is the neutral load demand for this range?

- A. 9800 VA
- B. 9240 VA
- C. 10,465 VA
- D. 13,200 VA

9. Which of the following is *not* a standard ampere rating for a fuse according to the *NEC*?

- A. 200A
- B. 225A
- C. 220A
- D. 175A

10. A one-family dwelling contains the following 120 V appliances, fastened in place, supplied by the same feeder: food disposer—750 VA; dishwasher—1450 VA; trash compactor—900 VA; two attic fans—750 VA each; water heater—8000 VA. What is the fixed-appliance line load for this dwelling?

- A. 8888 VA
- B. 7088 VA
- C. 9450 VA
- D. 12,600 VA

11. You're evaluating the components of a multi occupancy building that won't have an on-site employee. To be compliant with the *NEC*, each occupant will need to have access to their own

- A. emergency fire water-pump disconnect.
- B. service conductor.
- C. service disconnecting means.

D. cable attachment point.

12. If a circuit contains portions of different ampacities, the higher ampacity is permitted to be used for the entire circuit if the lower-ampacity conductor runs for the lesser of 10-feet in length or _____ percent of the circuit length.

A. 20

B. 15

C. 49

D. 10

13. Which of the following does *not* apply to conductors having Type Letters THW-2 as an external marking?

A. Flame retardant insulation

B. Dry and wet location application

C. 0.76 mm insulation thickness for 14-10 AWG conductors

D. Maximum operating temperature of 167°F

14. According to the *NEC*, _____ AWG is the minimum size for copper conductors in normal overhead and underground service.

A. 12

B. 6

C. 8

D. 10

15. What is the general lighting and receptacle load for a dwelling of 2,500 square feet, having four small appliance branch circuits and one laundry branch circuit?

A. 15,000 VA

B. 7575 VA

C. 7200 VA

D. 5250 VA

16. Two electricians are discussing the outside wiring for a new home. Electrician A says that the drip loop must be moved because it doesn't fall below the service head. Electrician B says that an area where the service conductors are to be run must be moved, because although this area is three feet above the door, it won't be more than three feet above the window. Which of the following is *correct*?

A. Only Electrician A is correct.

B. Both electricians are correct.

C. Only Electrician B is correct.

D. Neither electrician is correct.

17. Two electricians are discussing OCPDs. Electrician A says that clothes closets are ideal locations for panelboards with circuit breakers because it hides them from view of nonoccupants. Electrician B says bathrooms are a preferred location for the panelboard so that they conform to ready access requirements. Which of the following statements is *correct*?

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

18. When a small conductor such as 12 AWG copper is not a tap conductor or a transformer secondary conductor its overcurrent protection may *not* exceed

- A. 20.
- B. 30.
- C. 15.
- D. 25.

19. According to the *NEC*, which of the following is *not* required to be marked on conductors and cables?

- A. Maximum temperature rating
- B. Proper type letters
- C. AWG size
- D. Maximum voltage rating

20. What is the *correct* conductor size for a copper Type THW conductor used in a 120/240 V, 3-wire, single-phase dwelling service or feeder rated at 200 amperes?

- A. 2/0
- B. 1/0
- C. 3/0
- D. 2

End of exam