

Code Calculation lesson 2 homework QUESTIONS ON BACK Instructor ; J. DeMello**Multiple Choice**

Identify the choice that best completes the statement or answers the question.

- _____ 1. Where different temperature limitations of individual components are applied to a single circuit, the principle of the _____ is often used to determine the temperature rating of the entire circuit.
- a. double effect
 - b. rolling stone
 - c. strongest will survive
 - d. weakest link
- _____ 2. The temperature rating associated with the ampacity of a conductor shall be selected and coordinated so as not to exceed the _____ temperature rating of any connected termination, conductor, or device
- a. average
 - b. highest
 - c. lowest
 - d. standard
- _____ 3. The three most common insulated conductor temperature ratings associated with Table 310.15(B)(16) are
- a. 60, 70, and 90 degree Celsius
 - b. 60, 75, and 90 degree Celsius
 - c. 65, 75, and 95 degree Celsius
 - d. 65, 75, and 110 degree Celsius
- _____ 4. Are THHN 90 degree Celsius conductors permitted to be connected to the terminals of a circuit breaker and used at their 90 degree C ampacities as shown in Table 310.15(B)(16) ?
- a. Always
 - b. Only if circuit breaker is approved for such use
 - c. Only if the circuit breaker is listed and identified for such use
 - d. Never
- _____ 5. The two most common conductor terminal temperature ratings associated with circuit breakers and other equipment rated 100 amps or less are _____
- a. 60 degree C and 75 degree C
 - b. 60 degree C and 90 degree C
 - c. 60 degree C and 140 degree C
 - d. 60 degree C and 167 degree C
- _____ 6. In addition to temperature ratings of wire terminals, a circuit breaker may be marked with another temperature rating such as 25 degree C or maybe even as high as 40 degree C. This marking most likely specifies the _____ temperature
- a. Ambient
 - b. Conductor
 - c. Internal
 - d. Terminal
- _____ 7. A 10 AWG THWN copper conductor is connected to a circuit breaker with termination temperature limitation marked (not to exceed) 60 degree C. What is the allowable ampacity of this conductor now that it is connected to this circuit breaker ?
- a. 25 Amps
 - b. 30 Amps
 - c. 35
 - d. 40
- _____ 8. a 14 AWG XHHW-2 copper conductor is connected to a circuit breaker with termination temperature limitation marked (not to exceed) 60 degree C. What is the allowable ampacity of this conductor now that it is connected to this circuit breaker ?
- a. 12 Amps
 - b. 15 Amps
 - c. 10 Amps
 - d. 14 Amps

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- _____ 9. Two 8 AWG XHHW-2 copper conductors are connected to a two-pole circuit breaker with termination temperature limitation marked (not to exceed) 60/75 degree Celsius. What is the allowable ampacity of these conductors now that they are connected to this two-pole circuit breaker ?
- a. 45 amps
 - b. 55 amps
 - c. 50 amps
 - d. 60 amps
- _____ 10. An existing 12 AWG TW copper conductor is connected to a new replacement circuit breaker with termination limitation marked (not to exceed) 60/75 degree Celsius. What is the allowable ampacity of this conductor now that it is connected to this circuit breaker?
- a. 25 amps
 - b. 15 amps
 - c. 30 amps
 - d. 20 amps
- _____ 11. First Part , Determine the minimum circuit conductor size for each non-continuous load of 27 kilowatts. Two 3-phase circuits are installed in a single EMT raceway
- a. 6 AWG THHN copper
 - b. 8 AWG THHN copper
 - c. 4 AWG THWN copper
 - d. 4 AWG THHN copper
- _____ 12. Second Part , Determine the minimum circuit breaker size for each non-continuous load. Calculate the ampacity of the conductors. Calculate to the nearest ampere.
- a. 25 Amp circuit breaker
 - b. 35 Amp circuit breaker
 - c. 20 Amp circuit breaker
 - d. 30 Amp circuit breaker