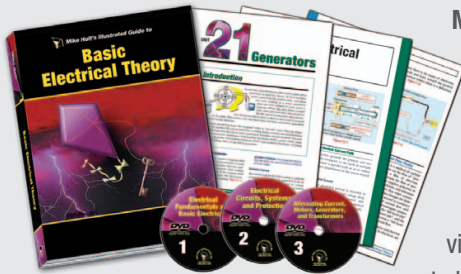


PART 1

Electrical Theory Exam (4 Hours)

Suggested Study Materials:



Mike Holt's Theory program will give you the foundation you need to pass this portion of your exam. This library includes DVDs and *Mike Holt's Illustrated Guide to Basic Electrical Theory* that will help you understand what electricity is, how it is used and how it is produced. You will learn everything from a brief study of matter to a breakdown of circuits for controls, fire alarms, security and much more. You will also learn the basics for motors and transformers. The full-color textbook provides hundreds of illustrated graphics, detailed examples, practice questions and more to break down this topic for you.

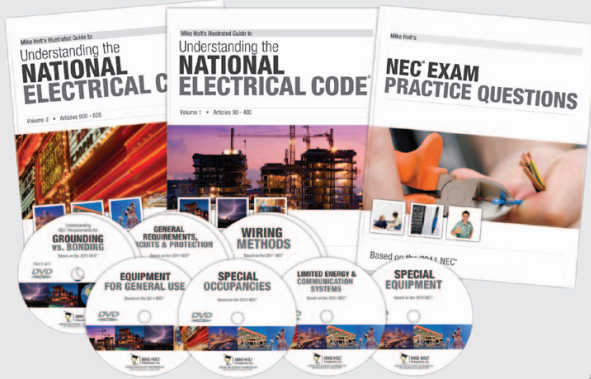
Visit www.MikeHolt.com/Theory to see Mike's full selection of Theory materials.

1. Providing a path to the earth often helps reduce electrostatic charge.
(a) True
(b) False
2. Lightning frequently terminates to a point of elevation and it strikes nonmetallic as well as metallic objects with the same frequency.
(a) True
(b) False
3. The termination of the lightning strike is unlikely to ignite combustible materials.
(a) True
(b) False
4. Lightning protection is intended to protect the building structure itself, as well as the electrical equipment on or inside the building structure.
(a) True
(b) False
5. Nonmagnetic metals are ferrous, meaning they do not contain any iron, and cannot be magnetized.
(a) True
(b) False
6. Magnetic lines of force can cross each other and they are called flux lines.
(a) True
(b) False
7. It is not the force of the magnetic field through a conductor that produces electricity; it is the relative motion of the field to the electrons within the conductor that produces the movement of electrons.
(a) True
(b) False
8. People become injured and death might occur when voltage pushes electrons through the human body causing the heart to go into ventricular fibrillation.
(a) True
(b) False

PART 2

National Electrical Code Exam (4 Hours)

Suggested Study Materials:



You will gain complete confidence in understanding the *National Electrical Code* when you choose **Mike's Detailed NEC Library**. This program is based on his best-selling *Understanding the National Electrical Code Volume 1 and 2* textbooks and DVDs and also includes the *NEC Exam Practice Questions* book. You will learn how to use the *NEC*, general installation requirements, grounding vs. bonding, wiring methods, equipment for general use, special occupancies, special equipment, and limited energy and communication systems in a very easy-to-understand format that makes this program effective. The DVDs follow the text as Mike explains the *Code* with his dynamic teaching style.

Visit www.MikeHolt.com/Code to see Mike's full selection of *NEC* materials.



Please use the 2011 *Code* book to answer the following questions, which are based on the 2011 *NEC*.

1. A 10 AWG stranded copper conductor has a cross-sectional area of _____.
 - (a) 0.007 sq in.
 - (b) 0.011 sq in.
 - (c) 0.012 sq in.
 - (d) 0.106 sq in.
2. A motor terminal housing enclosing rigidly mounted motor terminals shall have a minimum of _____ between line terminals for a 230V motor.
 - (a) ¼ in.
 - (b) 3/8 in.
 - (c) ½ in.
 - (d) 5/8 in.
3. Surface-mounted luminaires with a ballast shall have a minimum clearance of _____ from combustible low-density cellulose fiberboard, unless the luminaire is marked for surface mounting on combustible low-density cellulose fiberboard.
 - (a) ½ in.
 - (b) 1 in.
 - (c) 1½ in.
 - (d) 2 in.
4. Dry-type transformers installed indoors rated over _____ shall be installed in a vault.
 - (a) 1,000V
 - (b) 20,000V
 - (c) 35,000V
 - (d) 50,000V

PART 3

Electrical Calculations Exam (3 Hours)

Suggested Study Materials:



Choose one of **Mike's Exam Preparation libraries** and you will find out why his study programs have successfully helped thousands of people pass their exams. Whether you choose his Comprehensive Library that provides a full study program for Theory, *Code* and Calculations or you choose his Intermediate programs for a streamlined study program, you will be satisfied. These programs provide full-color textbooks, and informative DVDs that will help you pass your exam the first time. For more information on these programs contact our office at 888.NEC.CODE and we can help you choose the right program for your needs.

Visit www.MikeHolt.com/ExamPrep to see Mike's full selection of Exam Preparation materials.

Figure 1 applies to Questions 1 through 3.

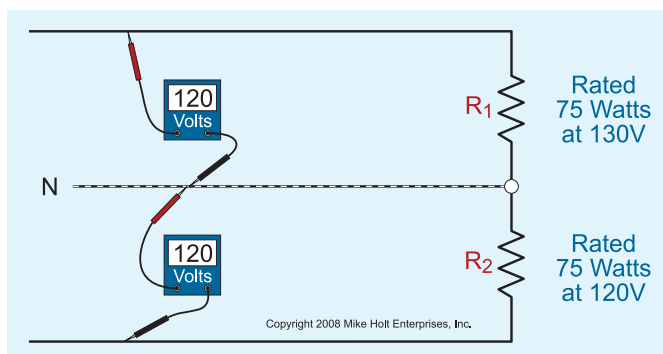


Figure 1

1. The resistance of R_1 is _____.
 - (a) 19.20 ohms
 - (b) 22.50 ohms
 - (c) 192 ohms
 - (d) 225 ohms

2. The current of Lamp 2 (R_2) is _____ amperes.
 - (a) 0.54
 - (b) 0.63
 - (c) 5.40
 - (d) 6.30
3. The total power consumed of both circuits combined will be _____ watts.
 - (a) 139
 - (b) 150
 - (c) 278
 - (d) 300

Figure 2 applies to Questions 4 and 5.

4. If the neutral path is opened as shown in Figure 2, the current of the circuit will be _____ amperes.
 - (a) 0.58
 - (b) 0.63
 - (c) 0.93
 - (d) a and b