Title: **Intro to Electricity** Test: 2

Course: Electrical Applications Unit: Electrical Theory CLO: 3

Name ANSWER KEY Grade 25pts. Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Objectives**

1. Student shall identify different electrical terms and the characteristics they represent.
2. Student shall calculate either the engineering or scientific notation for a given decimal number.

**Assessment**

Students shall demonstrate a comprehension of the objectives listed above by scoring a minimum of 75% on this Test. Grading shall be based on an answer key.

**Instructions**

Choose whether the following items are True or False.

1. The unit of resistance is the ohm.
   1. True
   2. False
2. 0.0047 amperes can be expressed in engineering notation as 47mA.
   1. True
   2. False
3. The symbol µ is an engineering abbreviation for 10-6 or micro.
   1. True
   2. False
4. The movement of free electrons through a conductor is called current.
   1. True
   2. False
5. Opposites repel each other.
   1. True
   2. False
6. The volt is the basic unit of electromotive force.
   1. True
   2. False
7. Resistance is the opposition to the flow of current.
   1. True
   2. False
8. Electrons have a positive charge.
   1. True
   2. False
9. The ampere is the basic unit of electromotive force and has the symbol E.
   1. True
   2. False
10. Resistance is symbolized by the letter R and in measured in watts.
    1. True
    2. False

**Instructions**

These items are multiple-choice. Select the best possible answer.

1. An atom which has 1 to 3 electrons in its valence shell, would be considered a good:
2. Insulator
3. Conductance
4. Ion
5. Conductor
6. Which of the following statements is true?
7. Like charges repel and unlike charges attract.
8. Unlike charges repel and like charges attract.
9. Like charges repel and unlike charges repel.
10. Like charges attract and unlike charges attract.
11. Electrons moving past a given point in a conductor would be measured in:
12. Watts
13. Ohms
14. Volts
15. Amperes
16. A universally accepted unit of charge is:
17. A watt
18. A coulomb
19. A volt
20. An ampere
21. Which of the following units represent "electrical pressure"?
22. Watts
23. Ohms
24. Volts
25. Amperes
26. The unit abbreviation for current is:
27. A
28. V
29. C
30. Ω
31. When measuring a battery that is not in a circuit, you would measure:
32. Amps
33. Watts
34. Volts
35. Ohms
36. An electrical circuit diagram using symbols is called a:
37. Schematic
38. Pictorial
39. Drawing
40. The unit symbol for resistance is:
41. A
42. V
43. C
44. Ω
45. Voltage is the:
46. The opposition to the flow of current.
47. The movement of free electrons.
48. The force that exists between charged particles.
49. The force that causes water to flow.
50. How would the decimal number 2654.13 be represented in scientific notation?
51. 2.654k
52. 265413 x 10-2
53. 2654
54. 2.654 x 103
55. The correct engineering expression for 8.54x10-5 is:
56. 854p
57. 85.4m
58. 85.4μ
59. 85.4k
60. The electrical symbol for voltage is:
61. I
62. E
63. V
64. R
65. Which component is used to resist the flow of current in a circuit?
66. Resistor
67. Capacitor
68. Battery
69. Inductor
70. What actually moves in an electrical circuit?
71. Ohms
72. Atoms
73. Electrons
74. Copper

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