Student name:_____

**1)** Resistors with higher resistance values usually have _____ wattage ratings.

**2)** Since they are generally used for high-current applications, _____ resistors are available in wattage ratings from 1 W up to 100 W or more.

**3)** _____-mount resistors are constructed by depositing a thick carbon film on a ceramic base.

**4)** A _____ resistor is a wire-wound resistor made to burn open easily when the power rating is exceeded.

**5)** The power or wattage rating of a resistor is determined by

A) color-coded bands
B) its function in a circuit
C) its physical size
D) measuring its resistance

**6)** A resistor is used to

A) limit current or produce a voltage drop
B) step up current
C) increase voltage
D) amplify signals

A) resistance in ohms and tolerance in percentage
B) resistance in ohms and power rating in watts
C) resistance in ohms and conductivity in mhos
D) resistance in ohms and power in joules

**8)** In electronic equipment, the resistor most commonly used is the

A) wire-wound
B) film-type
C) carbon-composition
D) carbon

**9)** What type of resistor is constructed by wrapping resistance wire around an insulating core?

A) Carbon
B) Carbon-composition
C) Film-type
D) Wire-wound

**10)** What type of resistor is typically used as a precision resistor?

A) Carbon
B) Carbon-composition
C) Film-type
D) Wire-wound

**11)** What type resistor is formed by spraying a thin film of metal onto a ceramic substrate and then cut in the form of a spiral?

A) Carbon
B) Wire-wound
C) Carbon composition
D) Metal-film

**12)** What is the resistor called that is designed to burn open easily when the power rating is exceeded?

A) Thermistor
B) Varistor
C) Fusible
D) Chip

**13)** A resistor whose resistance value changes with changes in operating temperature is a

A) thermistor
B) varistor
C) fusible
D) chip

**14)** What type resistor is frequently used in electronic circuits in which it is desired to provide temperature control?

A) Thermocouple
B) Thermodynamic
C) Thermistor
D) Varistor

**15)** If a resistor is color-coded red, blue, and orange, what is its resistance value?

A) 2500 ohms
B) 2600 ohms
C) 26,000 ohms
D) 260 ohms

**16)** The amount by which the actual resistance can differ from the color-coded value is the:

A) power rating
B) temperature coefficient
C) tolerance
D) differential resistance

**17)** A resistor with a single black band around the center of the resistor body has a resistance of

A) one
B) zero
C) 1000
D) infinity

**18)** The resistance value of a chip resistor is determined from the

A) color-code
B) size of the resistor
C) three digit number printed on the film or body
D) three letters printed on the body

**19)** Variable resistors can be wire-wound or

A) carbon type
B) metal-film type
C) fusible
D) zero resistance type

**20)** The way resistance varies with shaft rotation in a variable resistor is called the

A) variable of the control
B) variance of the control
C) rheostat
D) taper of the control

**21)** A device that is used to provide any one resistance within a wide range of values is a

A) varistor
B) decade box
C) fusible resistor
D) decimal box

**22)** Rheostats and potentiometers are referred to as

A) amplifiers
B) fixed resistors
C) variable resistors
D) fusible resistors

**23)** A potentiometer has

A) one terminal
B) two terminals
C) three terminals
D) four terminals

**24)** A variable resistance with two terminals that is connected in series with the load is a

A) potentiometer
B) rheostat
C) tunable transformer
D) varistor

**25)** What resistive device is generally used to control relatively large values of current in low-resistance circuits for ac power applications?

A) Fusible resistor
B) Potentiometer
C) Rheostat
D) Zero-ohm resistor

**26)** Commercial rheostats are typically

A) wire-wound, high wattage resistors
B) wire-wound, low wattage resistors
C) carbon, high wattage resistors
D) metal-film, low wattage resistors

**27)** The power rating is a property of a resistor that depends on the resistor's

A) color-code
B) size
C) function in a circuit
D) composition

**28)** For ambient temperatures greater than 70°C, the power rating of a resistor must be

A) increased
B) derated
C) doubled
D) held constant

**29)** When not used, resistors generally keep their characteristics

A) for about one week
B) for about one year
C) almost indefinitely
D) between one to two years

**30)** The most common trouble in resistors is

A) an open
B) a short
C) leakage
D) lower than listed tolerance

**31)** What is indicated when a volume or tone control makes a scratchy noise as the shaft is rotated?

A) Shorted resistance element
B) Open resistance element
C) Worn or dirty resistance element
D) Wrong resistance value

**32)** Resistance is measured with a(n)

A) oscilloscope
B) ohmmeter
C) ammeter
D) voltmeter

**33)** As measured with an ohmmeter, infinite ohms means

A) an open circuit
B) a shorted circuit
C) low resistance
D) zero resistance

**34)** What may cause a much lower resistance value to be displayed on an ohmmeter when checking resistance in a circuit?

A) Low batteries in the ohmmeter
B) The circuit power is on
C) Parallel resistance paths
D) Open resistors

**35)** Aging, which is normal resistor heating over a long period of time causes the resistor to exceed its

A) power rating
B) derating factor
C) shelf life
D) tolerance

**36)** The main function of a resistor is to limit the amount of current or produce a desired drop in voltage.

- ⊙ true
- ⊙ false

**37)** The two main characteristics of a resistor are its resistance in ohms and its

- ⊙ true
- ⊙ false

**38)** A thermistor is a thermally sensitive resistor whose resistance value changes with changes in operating temperature.

- ⊙ true
- ⊙ false

**39)** A resistor that is color-coded red, green, red has a value of 2500 ohms.

- ⊙ true
- ⊙ false

**40)** The amount by which the actual resistance can differ from the color-coded value is the positive temperature coefficient.

- ⊙ true
- ⊙ false

**41)** Zero-ohm resistors are commonly found on printed circuit boards.

- ⊙ true
- ⊙ false

**42)** Variable resistors can be wire-wound or carbon type.

- ⊙ true
- ⊙ false

**43)** A decade resistance box is typically used as a potentiometer.

- ⊙ true
- ⊙ false

**44)** A rheostat has two terminals and a potentiometer has three terminals.

- ⊙ true
- ⊙ false

**45)** A potentiometer can never be wired as a rheostat.

- ⊙ true
- ⊙ false

**46)** Wire-wound resistors are larger and have higher wattage ratings than carbon resistors.

- ⊙ true
- ⊙ false

**47)** Resistors have a relatively short shelf life and only keep their characteristics for six to eight months.

- ⊙ true
- ⊙ false

**48)** The most common trouble in resistors is an open.

⊙ true ⊙ false

**49)** When checking resistance in a circuit, it is important to be sure there are no parallel resistance paths.

⊙ true
⊙ false

# Answer Key

Schultz 13th ch2

Test name: Grobs Basic Electronics Author:

1) lower

2) wire-wound

3) Surface

4) fusible

5) C

6) A

7) B

8) D

9) D

10) D

11) D

12) C

13) A

14) C

15) C

16) C

17) B

18) C

19) A

20) D

21) B

22) C

23) C

24) B

25) C

26) A

27) B

28) B

29) C

30) A

31) C

32) B

33) A

34) C

35) D

36) TRUE

37) FALSE

38) TRUE

39) TRUE

40) FALSE

41) TRUE

42) TRUE

43) FALSE

44) TRUE

45) FALSE

46) TRUE

47) FALSE

48) TRUE

49) TRUE