

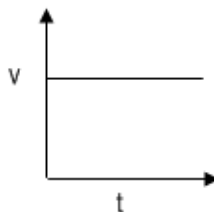
**Science 10 Exam Review  
Practice Multiple Choice**

1. What is the charge of an electron?
  - a. Positive
  - b. Negative
  - c. Neutral
2. What is the term for electricity that does not move?
  - a. Static
  - b. Current
  - c. Kinetic
  - d. Ionic
3. A balloon is rubbed in human hair. How will the electrons be transferred?
  - a. Balloon to hair
  - b. Hair to balloon
  - c. Electrons will not move
4. Positive Charges attract \_\_\_\_\_ charges.
  - a. Positive
  - b. Negative
  - c. Neutral
  - d. Both positive and negative
5. When an object is charged without touching, it is said to be charged by:
  - a. Friction
  - b. Contact
  - c. Induction
  - d. Static
6. Electrons can move the easiest through which of the following materials?
  - a. Bread
  - b. Copper
  - c. Hair
  - d. Plastic
7. What is the name for the material that does not allow electrons to easily travel through it?
  - a. Insulator
  - b. Conductor
  - c. Terminator
  - d. Ammeter
8. Electric potential is known as:
  - a. Current
  - b. Resistance
  - c. Circuitry
  - d. Voltage
9. What device measures the electrical energy in a circuit?
  - a. Ammeter
  - b. Thermometer
  - c. Voltmeter
  - d. Ohmmeter
10. Which of the following measures the electric current in a circuit?
  - a. Ammeter
  - b. Thermometer
  - c. Voltmeter
  - d. Ohmmeter
11. In a circuit, what is another name for a light bulb?
  - a. Power source
  - b. Conductor
  - c. Switch
  - d. Load
12. A battery consists of two or more \_\_\_\_\_ in series.
  - a. Cells
  - b. Light bulbs
  - c. Ammeters
  - d. Switches
13. A circuit contains three light bulbs in series. Where should a switch be placed to turn all the lights on or off?
  - a. Next to the first light bulb
  - b. Next to the second light bulb
  - c. Next to third light bulb
  - d. Anywhere in the circuit
14. Two identical light bulbs are connected in series. How will the brightness of those lights change if another identical bulb is added in series.
  - a. Lights will get brighter
  - b. Lights will get dimmer
  - c. Brightness will not change
15. Two identical light bulbs are connected in parallel. A third identical light is connected in parallel. Theoretically, how will the brightness of the original lights change?
  - a. Lights will get brighter
  - b. Lights will get dimmer
  - c. Brightness will not change

16. Using Ohm's law, what is the current drawn from a 12V battery if the circuit contains 5.5 Ohms of resistance?
- a. 6.5A  
b. 66A  
c. 0.46A  
d. 2.18A
17. A 2.3A current is drawn from a 24V battery. What is the resistance in the circuit?
- a. 10.4 ohms  
b. 55.2 ohms  
c. 0.095 ohms  
d. 21.7 ohms
18. In 1997, *Thrust SSC*, the world's fastest jet-engine car, traveled 608m at an average speed of 350m/s. The length of time it took in minutes was:
- a. 104.4  
b. 1.7  
c. 0.0096  
d. 0.028
19. The area under a velocity-time graph represents?
- a. Slope  
b. Distance  
c. Time  
d. Acceleration
20. Given the following number: 234506 which of the following is correctly rounded to 3 significant digits.
- a. 234 000  
b. 235 000  
c. 234  
d. 23500
21. An object travels equal amounts of distance in equal amounts of time. This is an example of \_\_\_\_\_.
- a. Average acceleration  
b. Average speed  
c. Constant acceleration  
d. Constant speed
22. A car travels 275 km in 3.5 hours. What is the average speed of the car?
- a. 78.6 km/h  
b. 271.5km/h  
c. 0.013km/h  
d. 962.5km/h
23. How much time does it take a car driving 32m/s to drive 272m?
- a. 8704s  
b. 0.12s  
c. 8.5s  
d. 240s
24. A cart rolls down a hill and accelerates at  $3.5\text{m/s}^2$  for 8.0s. If the initial speed was 3.0m/s what is its final speed?
- a. 35m/s  
b. 28m/s  
c. 25m/s  
d. 31m/s
25. What is the acceleration of an object that goes from 15m/s to 62m/s in 11.8s? (note that all the answers have the unit  $\text{m/s}^2$ )?
- a. 6.5  
b. 4.0  
c. 20.2  
d. 63
26. What was the initial speed of an object that accelerated at  $5.5\text{m/s}^2$  for 25 seconds to reach a final speed of 185m/s?
- a. 47.5m/s  
b. 322m/s  
c. 0.0m/s  
d. 1.3m/s
27. How many seconds are required for a car to go from 12m/s to 42m/s under an acceleration of  $5.0\text{m/s}^2$ ?
- a. 0.17s  
b. 11s  
c. 6.0s  
d. 150s
28. The average speed and the instantaneous speed will be the same in which one of the following examples?
- a. an average speed taken at the bottom of an incline as a skateboarder travels up the incline and the instantaneous speed taken when he reaches the top of the incline  
b. any point as a leaf is falling from a tree to the ground  
c. a car traveling at 80km/h  
d. a car traveling at 60km/h and then speeding up to 80 km/h
29. Using the precision rule what would be the correct answer to the following question:  
 $5.55\text{ m} + 12.8\text{ m} - 6.565\text{ m}$
- a. 11.785  
b. 11.79  
c. 11.8  
d. 11.7

30. Given the following graph what does it represent?

- a. Increasing Speed
- b. Zero Speed
- c. Increasing acceleration
- d. Zero acceleration



31. This is a possible unit for acceleration  $\text{km/h}^2$

- a. True
- b. False

32. Compounds held together by ions are called \_\_\_\_\_ compounds.

- a. Molecular
- b. Super
- c. Weak
- d. Ionic

33. How many electrons in the valence shell of fluorine?

- a. 1
- b. 4
- c. 7
- d. 8

34. Molecular compounds are formed when elements \_\_\_\_\_.

- a. Exchange protons
- b. Exchange electrons
- c. Share electrons
- d. Share protons

35. What is the name of this compound:  $\text{CaCl}_2$

- a. Calcium dichloride
- b. Calcium chlorine
- c. Calcium chloride
- d. Monocalcium dichloride

36. Is this the chemical formula for aluminum fluoride:  $\text{Al}_2\text{F}_3$

- a. True
- b. False

37. Is this the chemical formula for dinitrogen hexaoxide:  $\text{N}_2\text{O}_5$

- a. True
- b. False

38. What is the name for this compound:  $\text{SO}_3$

- a. Sodium trioxide
- b. Sulfur trioxide
- c. Sodium pentaoxide
- d. Sulfur oxide

39. Is this the formula for magnesium oxide:  $\text{Mg}_2\text{O}_2$

- a. True
- b. False

40. How many electron(s) does bromine want to gain?

- a. 1
- b. 2
- c. 3
- d. 4

41. The set of elements contain only metals is:

- a. Mg, Fe, N
- b. Ca, K, Br
- c. Na, K, Zn
- d. Ba, O, Br

42. What types of bonds are formed between two non-metals?

- a. Covalent
- b. Molecular
- c. Ionic
- d. Shared

43. In a chemical change the substance changes its:

- a. Composition
- b. Size
- c. Shape
- d. Mass

44. An atom becomes an ion with a charge of -2 when it:

- a. Gains 2 protons
- b. Loses 2 neutrons
- c. Loses 2 electrons
- d. Gains 2 electrons

45. The most unreactive group of elements can be found in group \_\_\_\_\_.

- a. 17
- b. 1
- c. 2
- d. 18

46. What type of reaction is represented by the following chemical equation?  $\text{Na} + \text{Br}_2 \rightarrow \text{NaBr}_2$

- a. Decomposition
- b. Combustion
- c. Synthesis
- d. Single Replacement

47. Which of the following is a product in all combustion reactions?
- a. Hydrogen
  - b. Carbon
  - c. Carbon dioxide
  - d. Carbon monoxide
48. What type of reaction is represented by the following chemical equation?  $\text{Ca}_3(\text{PO}_4)_2 \rightarrow \text{Ca} + \text{PO}_4$
- a. Synthesis
  - b. Decomposition
  - c. Single replacement
  - d. Double replacement
49. Which of the following is in the orbit around the nucleus:
- a. Protons
  - b. Neutrons
  - c. Electrons
50. Which one of the following is an example of a change of state?
- a. Salt is dissolved in water
  - b. An ice cube melts
  - c. An ice cube is broken into many pieces
  - d. Sodium and chlorine combine to produce table salt