

SAINT JOSEPH'S PREPARATORY SCHOOL
PHYSICS TEST QUESTIONS..... T P FITZPATRICK
Capacitance and Resistance

1. What is the name of the device that stores energy in an electric Field?
2. What is the name of the device that converts electrical energy to heat?
3. What is the name of the device that is made of two conductors separated by a non-conductor?
4. What is the name of the device that converts chemical energy to electrical energy?
5. Which of the following prepositions is usually used when describing voltage?
6. Which of the following prepositions is usually used when describing current?
7. What quantity is measured in ohms?
8. What quantity is measured in farads?
9. How is the voltage related to current in regards to capacitors.
10. How is the voltage related to current in regards to resistors?
11. Which quantity is the same for all devices connected in parallel?
12. Which quantity is the same for all devices connected in series?
13. What effect does doubling the voltage have on the charge on a capacitor?
14. What effect does doubling the voltage have on the energy in a capacitor?
15. What effect does doubling the voltage have on the current associated with a capacitor?
16. What effect does doubling the voltage have on the current associated with a resistor?
17. What effect does doubling the voltage have on the current associated with a resistor?
18. What effect does doubling the voltage have on the rate at which a resistor generates heat?
19. What effect does adding another resistor to a series circuit have on the equivalent resistance of the circuit?
20. What effect does adding another resistor to a parallel circuit have on the equivalent resistance of the circuit?
21. What effect does reducing the “load” resistor in a simple circuit have on the heat generated by the internal resistance?
22. What effect does reducing the “load” resistance in a simple circuit have on the terminal voltage of the cell or battery?
23. What effect does doubling the voltage have on the energy stored in a capacitor?
24. What is Ohm’s Law?
25. In a simple series circuit, what quantity is the same throughout?
26. In a simple parallel circuit, what quantity is the same throughout?
27. In a simple parallel circuit, what quantity can be different in each resistor?
28. In a simple series circuit, what quantity can be different in each resistor?
29. What are the three formulas for calculating the power dissipated by a resistor?
30. State Kirchoff’s Law for voltage.
31. State Kirchoff’s Law for current.
32. How is the direction of the current related to the voltage across a device that is adding electrical energy to a circuit?
33. How is the direction of current related to the electrical potential across a device that is removing electrical energy from a circuit?