**Formulae that you will need:**

**This is a review sheet for your test tomorrow.**

1

What would happen if a polyethylene ruler was rubbed with a wool cloth?

1. Nothing
2. The polyethylene ruler would take the wool’s positive charges
3. The wool cloth would take the polyethylene ruler’s negative charges
4. The polyethylene ruler would take the wool’s negative charges

2

What would happen if you used a cotton cloth to wipe your glass window clean?

A) The glass window would become negatively charged

B) The cotton cloth would become negatively charged

C) The cotton cloth would become positively charged

D) The glass window & cotton cloth would stay neutrally charged

3

Which statement is completely true?

A) Fur rubbed with silk becomes negatively charged because the silk will receive negative charges

B) Acetate rubbed with cotton becomes positively charged because the acetate will receive positive charges

C) Ebonite rubbed with fur becomes negatively charged because the ebonite will receive negative charges

D) Polyethylene rubbed with wool becomes negatively charged because the polyethylene will lose positive charges & the wool with receive these positive charges

4

A stereo has a power rating of 500W & is used for 1 hour. How much energy was consumed?

1. 500 J B) 30 000 J C) 1 800 000 J D) 180 000 J

5

A charge of 5400C flows through a circuit in one hour and 5 min. What is the current intensity?

1. 1.38 A B) 1 A C) 1.43A D) 3600 A

6

How much energy is contained in a charge of 200C supplied by a voltage of 120V?

1. 2 400 J B) 0.6 J C) 1.67 J D) 24 000 J

7

If a circuit has resistance of 20Ω & a potential difference of 110 V determine the current intensity.

1. 0.18 A B) 5.5 A C) 22 A D) 2 200 A

8

You accidentally leave your bedroom lights on & leave for school. The lights use 120 volts & have a current intensity of 5.5 amps. You are gone for 5 hours and 32 min. How much energy did the lights use?

1. 660 W B) 12 640 320 J C) 11 880 000 J D) 13 147 200 J

9

Two conducting spheres M and N are used for an experiment in static electricity.

The following observations are made:

|  |  |
| --- | --- |
| -  - | Sphere M is repelled by a glass rod which was rubbed with silk.  Spheres M and N attract each other. |

What electrical charges are there on the two spheres?

1. M is negative and N is positive C) M is positive and N is neutral
2. M is positive and N is negative D) M is negative and N is neutral

10

4.875 x 10 19 electrons are passing thru a wire. What is the charge in the wire? (Find C)

A) 7.8 C B) 7.8 x 1036 C C) 3.04 x 1038 C D) 1.28 C

11

Draw a parallel circuit that has three light bulbs, a battery, one resistor, a voltmeter measuring the potential difference of the battery and an ammeter measuring the total current intensity of the circuit.