Things to remember in the last hour before the exam: Level 2 Electricity

(This is not a revision sheet – you've done that by now - it's a list of things you might want to memorise at the last minute…)

1. Most equations are only used once so highlight an equation once you have used it (but V=IR will probably be used more than once). Any constants you need e.g. e = 1.6 x 10^{-19} C will be given to you on the separate equation sheet.
2. You must convert quantities into **SI** before using them in an equation (e.g. 5 mC = 5 x 10^{-3} C) Remember prefixes (μ=10^{-6}, m = 10^{-3}, c = 10^{-2}, k = 10^{3}, M= 10^{6}, G =10^{9})
3. If you can't remember the units, use the units on the other side of the equation e.g. E= V/d so electric field strength, E has units of V (from V) ÷ m (from d) i.e. V m^{-1}
4. If you are asked to give the answer to the correct number of significant figures use the information in the question (the least number of significant figures) and write your rounded answer after your calculated answer (and not instead of) – have a guess if you can't remember and it isn't the same rule as Chemistry
5. Remember the basic electricity rules (in a series circuit I is the same but V splits; in a parallel circuit V is the same but I splits). You will probably get a complex circuit but these rules may help you along with $R_T = R_1 + R_2$ is for adding resistors in series, $1/R_T = 1/R_1 + 1/R_2$ is for adding resistors in parallel
6. The power consumed by a light bulb (which determines how **bright** it is and how much energy it converts to heat/light per second) depends on **both** the **current** going through it and the **voltage** across it
7. The arrow for conventional current, I, is drawn the opposite way to the actual electron current (it is the electrons that move in a wire)
8. The force on a charged particle in an electric field doesn't change as you get closer to the charged plate
9. If you are looking for an equation involved with a magnetic field, the equation will have a B in it.
10. Magnetic field lines go from North to South (N poles of magnets/compasses follow these lines) and Electric field lines go from positive to negative (positive charges/protons follow these lines and negative charges/electrons move in the opposite direction)
11. **Magnetic** fields are created by magnets (**N** and **S**) and **electric** fields are created by charged plates (**+** and **-**)
12. Don't be afraid to draw a hand to help explain Flemings left and right hand rules
13. Flemings **Right** Hand Rule is for Gene**r**ato**r**s (that make electricity)
14. The left hand and right rule both explain interactions at right angles ("perpendicular") to each other of 3 things – you should be able to narrow down a prediction of one to a 50-50 chance (and if needs be you should guess)
15. In electricity, E stands for Electricity field strength (not Energy which is E_p and E_k)
16. For magnetic AND electric fields x (an x) means into the paper, · (a dot) means out of the paper