7 Key Questions
C2.6 Chemical Reactivity

Reaction Rate linked to factors
1. State factor and link to reaction rate
2. Link increase of frequency of collisions (AND increase in the amount of successful collisions due to more kinetic energy - temp) to increased factor.
3. Make sure each factor is explained in depth
4. Compare each 2 experiments in turn making sure only one factor is different per pair
Reaction Rate Graphs
1. High concentration reactants linked to high frequency of collisions linked to fast reaction rate linked to steep gradient
2. Link reducing concentration of particles (as reaction proceeds) to lower frequency of collisions and lower RR and gradient
3. Link reaction completed so no reactants and no collisions hence flat line
Equilibrium Expression
1. Write expression products/reactants. Do not forget the mols from the equation.
2. Insert values. Do not forget order of operations. You may need to rearrange expression.
3. State Q must equal K_c to be at equilibrium. If Q is larger then more products than K_c and if smaller less products than K_c

Equilibrium Principles
1. State factor, observations due to this and whether reaction shifted forward or back.
2. Explanation for why reaction shifts forward or back and link this to observation of change.
3. Repeat for each factor
pH and Conductivity
1. State which is good/better conductor and link to presence of ions due to dissociation
2. Write dissociation equations (and solid dissolving into ions first if a salt)
3. Repeat for each substance
pH and Reaction Rates
1. Link pH to level of dissociation. Write dissociation equation. Calculate $[H_3O^+] = 10^{-pH}$
2. Repeat steps for second acid (or base)
3. Link H_3O^+ amount to pH of each and compare
4. Link more H_3O^+ to more frequent collisions and therefore faster RR
pH Calculations
1. Select the formula needed to calculate the answer from the information you have.
2. Write down your working. Write your final answer to 3 sgf where possible and remember the units.