Trying to reduce the amount of information…..

**Questions :**

1. What is a chemical bond

shearing of electrons

1. Why it is worth to keep this notion in mind

Electron density

1. Which types of chemical bonds are known

Covalent,ionic,hydrogen,wanderwal

1. The major characteristics of a chemical bond

Shearing of electrons in various ways

1. How can we define the bonding energy

Potential energy released by the breaking of the bond

1. Pairwise interactions: how many types can you describe
2. What is a dipolar interaction?

Two diffently charged part of moleculs attract the other

1. Why a peptide bond is a dipole?

Because the two bond are polar and oriented in the same direction

1. The hydrophobic effect: a definition

Tendency of a substance to avoid mixing with water

1. Why a lipid bilayer is stable

Idrofobic tail form an ambient and hydrophilic head stay in the water

1. The hydrogen bond: why is it so important ?

Weak bond really important for water dna and protein interaction

1. Water molecules: the dominant interactions

Hydrogen bond, dipole bond

1. Permanent dipoles versus transient dipoles

Transient are such only when exposed to an electric field or another dipole

1. The role of electrostatic interactions at a molecular level

Form bond and make molecules interact

1. Van der Waals interactions: how would you rate them among the non bonding interactions

Really weak

1. The simplest definition of “chemical reaction”ù

Sharing of electrons

1. Which equation describes the dissociation processes

[AB]⬄[a]+[b]

1. What is the pK a of a substance

pKa=[h+][n-]\[nh]

1. What characterizes a molecule

Sequence and structure

1. When a molecule is water soluble

polar

1. When a molecule is water unsoluble

apolar

1. What is affecting the atomic reactivity

Free electron\ space in the last orbitals

1. What is a model?

A mathematical system the simulate a real one

1. Best fitting: what does it means and why is it so important

Try to find formula closest to the real phenomenon