ORDERS OF REACTION

1. a) Rate = k[B]^2
   The overall order is 2 (zero order with respect to A plus second order with respect to B).

   b) Rate = k[A][B]
   The overall order is 2 (first order with respect to A plus first order with respect to B.)

   c) Rate = k[A]
   The overall order is 1.

   d) Rate = k[A][B]
   The overall order is 2 (first order with respect to A plus first order with respect to B.)

2. a) Rate constant

   b) k will change with a change of temperature, or addition of a catalyst, or change of an existing catalyst.

   c) Square brackets around a substance mean that you are talking about its concentration in mol dm^-3.