

B.M.A. College Bazar

Chemistry.

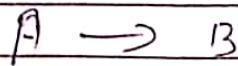
C. CHAUDHARY CHEMISTRY.

CHEMICAL KINETICS

Topic :- Rate of Chemical reaction

Change in concentration of Reactant

or product per unit time is called
rate of chemical reaction



If dx amount of A changes into B in
time dt then rate of reaction = $\frac{dx}{dt}$

If C is the molecular concentration
of A at any instant then

$$\frac{dx}{dt} \propto C \quad \text{or} \quad \frac{dx}{dt} = kC$$

where k : sp. rate constant.

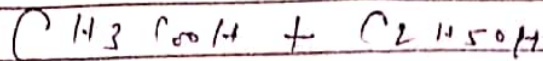
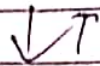
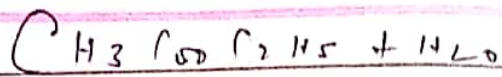
Molecularity of a chemical reaction

Total no. of molecules taking

part in rate determining step of

a chemical reaction is called

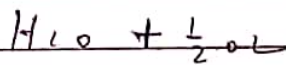
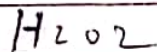
Molecularity of reaction.



In the above reaction two molecules one is ethyl acetate and other is H_2O

therefore molecularity of the

reaction is 2 and we can say it is bimolecular reaction.



Since in dissociation of hydrogen peroxide one molecule is participating

therefore it is unimolecular reaction.

ORDER OF CHEMICAL REACTION:

No. of reacting molecules whose

concentration alters as a result of

chemical change is called order of

the reaction. $nA + mB \rightarrow pC +$

$$\frac{dx}{dt} = k[A]^n[B]^m$$

$$\text{order} = n + m$$

Sum of the power of conc. term in is called ORDER of Reaction.

Rate of Reaction