

# ANOVA (Analysis of Variance) and its Assumption.

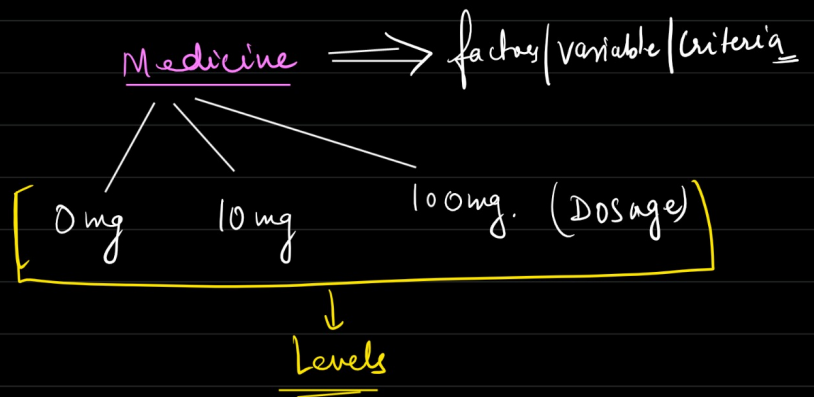
Def<sup>n</sup> : ANOVA is a statistical method used to compare the means of 2 or more groups

## Anova Terms

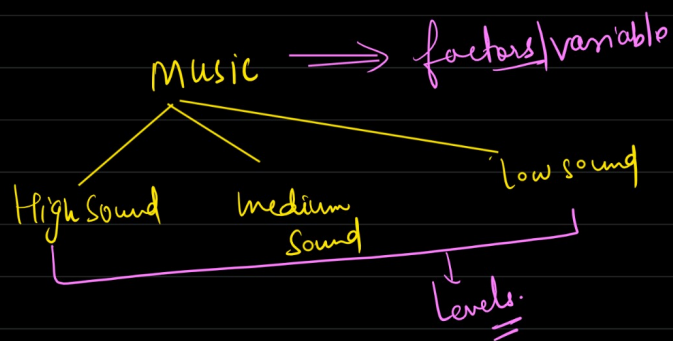
\* Factors / Variables / Criteria

\* Levels.

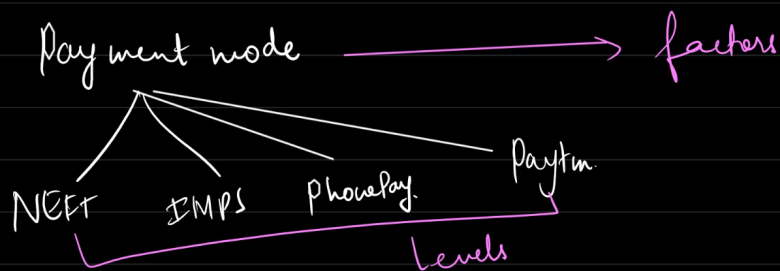
ex-1



ex-2



ex-3



## \* Assumptions of ANOVA

- $\rightarrow$  The population from which samples are drawn should be Normally distributed.
- $\rightarrow$  The sample should be independent of each other/random.
- $\rightarrow$  Absence of outlier.
- $\rightarrow$  Homogeneity of variance :- Homogeneity means that

the variance among the groups should be approximately equal.

		$S_1$	$S_2$	$S_3$
Std dev	Pop $\sigma$	$S_1^2 = S_2^2 = S_3^2$		
	Sample $S$			
Var.	$\sigma^2$			
	$S^2$			