	MEAH:
	RAW DATA: X = Foc
	Grangen DATA: $\bar{x} = \xi f_{x}$
	GIROUPED DATA: $\bar{\alpha} = \xi f_{\bar{\alpha}c} = \xi f_{\bar{\alpha}c}$ N  EF
ote:	The sum of the deviation of the observation from the AM is always zero. $ \begin{array}{cccccccccccccccccccccccccccccccccc$
	Combined Mean: $\bar{x} = n_1 \bar{x}_1 + n_2 \bar{x}_2$ $n_1 + n_2$
	Weignted Anthmetic Mean: $\bar{x} = \underline{\leq wx}$
	where weight.
	Geometric Mean: 1 x x x x x In
	RAW DATA: Antilog $\left[\frac{1}{n} \leq \log(x_i^o)\right]$
	GIROUPED DATA: APHIOG [ 1 & Fi log(xi)]

Haymonic Mean: n where x to.	
Rawdata: n \[ \grace{\chi \chi \chi} \]	
Grouped data: $H$ or $F$ $ \xi f/x \xi f/x \xi x \neq 0 \xi $	4
MEDIAM:	
median $(m) = \frac{(n+1)^{+1}}{2}$	
mpere v se vimpor d'opsornagions.	
Confinuos Jouquency distribution:	
L1 + (M/2 - Pcf) & C	
where Li = lower limit of median dass  pet = previous cumulative jrequency.  C = class width.  f = class jrequency.  N = total number of observation.	
total number of observation.	

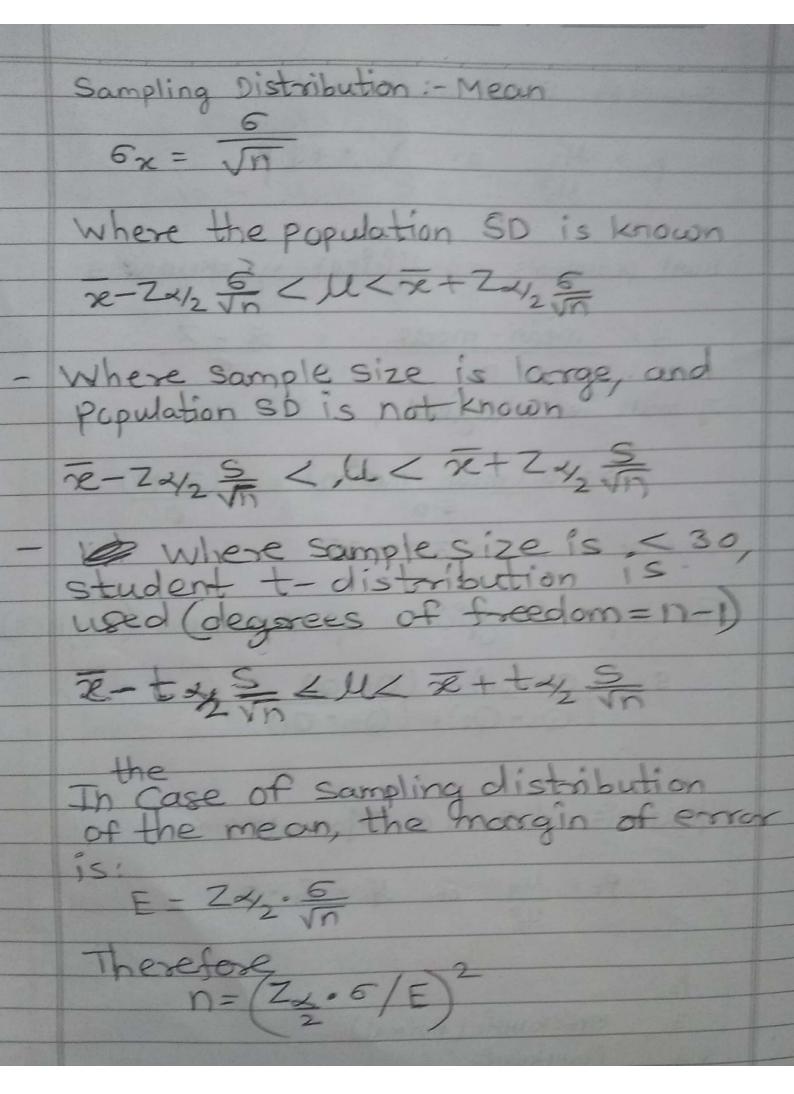
	ment, opsernation.	
Continuos Joseque	ny distribution:	
	1 70000	Massista Massista
(X) = 4+	(f1-f0) & C	
	(2f1 - f0 - f2)	222
where, Li: 10	wey unit of modal a	
41 .	Jack of wager cons	class
f <sub>2</sub> :	Jueg. of next class	14713007740111
C :	Class width.	
	Pistare	Continuos.
	19 - EQ 1 9000 Y 22	1+(iH/4-Pcf)*
Plantil	Qi = 2i (n+1)/43th	1+ 14-107
		+
Deule	Di = [ (H+1) /103+L	( + ( ? h/10 - PCf )
Dead	b) ci(iii) [iii]	F
	The Market State of the State o	81.
Percentice.	Pi 29 (HH)/100 3th.	K+ ( PH/100 - PCF)
135-1	30 / 735 4 35 4 30	4 5 brown P

Range: Highest value - lowest value. co-efficient of Range: H-L H+L Quartie Deviation: 03-01 co-éfecient of Quartie Deviation: 03-01 Q3+ Q1 Interquartique Range: Q3-Q1. Mean Deviation about Mean. RAW DATA: \$\frac{1}{2} = \frac{1}{2} \left[ \alpha - \frac{1}{2} \right] tobulated data:  $\overline{x} \cdot \xi f | x - \overline{x} |$ Relative Measure: M.D. (x)

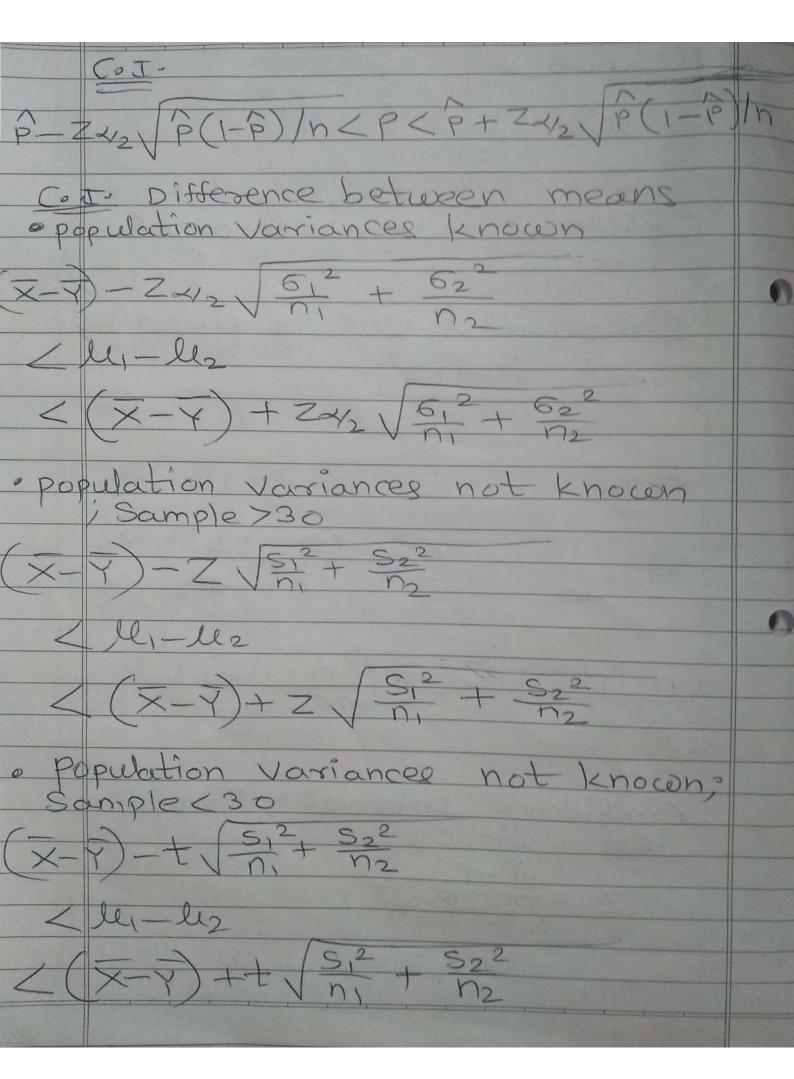
Mean deviation about Median	
For Rowdata: \( \sum_{\text{N}} \)	
for tabulated data: $\leq f[x-M]$	
Relative Measure: 7 M.D.(M)  cog. of M.D (M)  M	
Standard deviation.  Rowdata Tabulated data.  For population: $6 = \frac{1}{2(x-x)^2} = \frac{1}{6} = \frac$	
for sample:	
$6 = \left[\frac{2(x-\bar{x})^2}{n-1}\right] = \left[\frac{2f(x-\bar{x})^2}{N-1}\right]$ $[6 - explicient of Variation (C.V)]$	
c.v = Standard deviation × 100  Arithemetic  Mean	
= <u>6</u> × 100.	

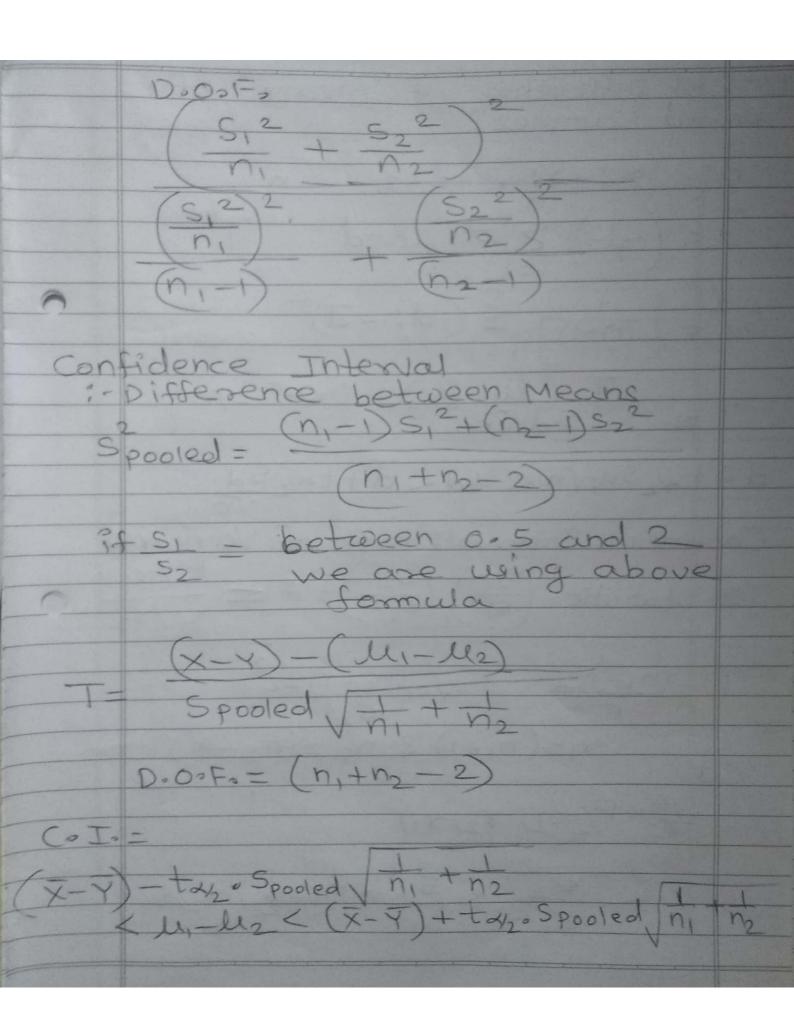
Central Moments:
Raw data = $M_H$ : $\leq (x-x)^M$
Tabulated data - $H_{Y}$ : $\leq f(xc-x\bar{c})^{Y}$
Raw Moments
Raw data: $M_{H}^{H} = \underbrace{\sum (x-a)^{H}}_{D}$
tabulated data: $H_H = \xi f(x - \alpha)^H$
where 'a' is any constant expect am'.
mean = median = mode & symmetrie 3
mode 2 median 2 mean & tre skewed 3
mean < medlan < mode 2 -ve skewed 3

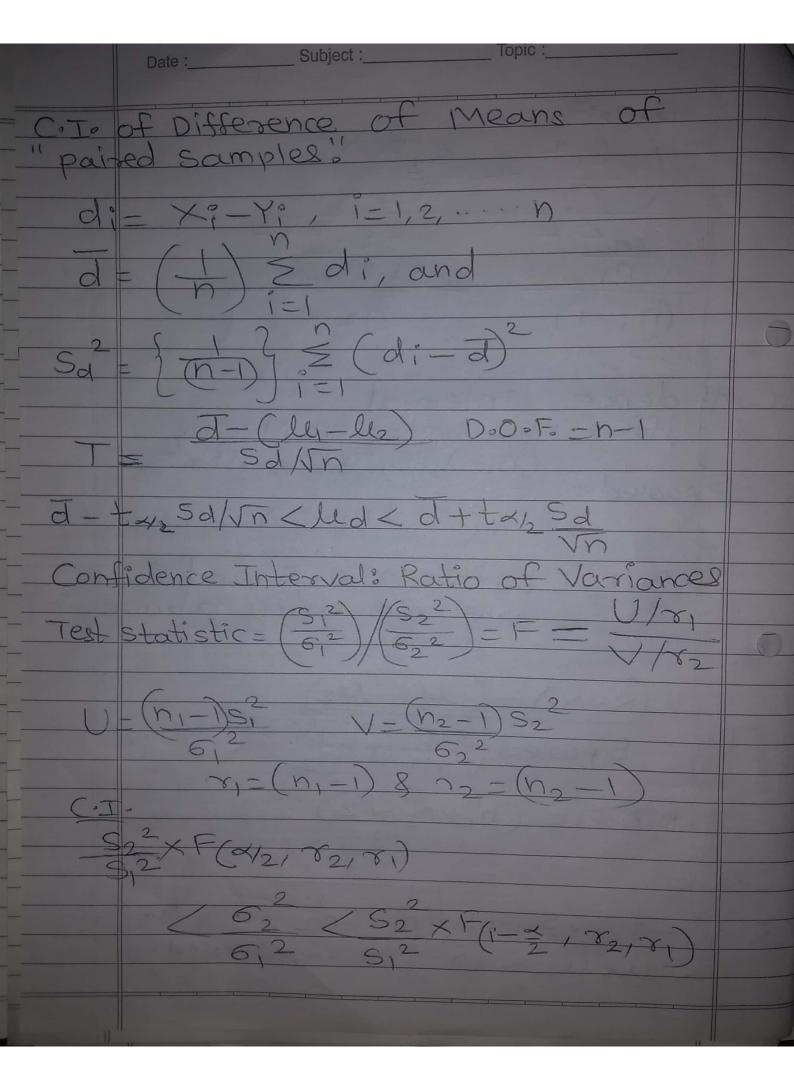
9	kewness Based on Moments
	0 - 42 00 10 10
	$B_1 = \frac{4^2}{M_2^3}$ or $V_1 = + \sqrt{B_1}$
	Kayl peauson's co-dficient of skewness
-	$8 = \underbrace{\text{mean-mode}}_{5 \cdot 0} = 5\overline{c} - \overline{Z}$
	To mode is in defined,
	$S = 3 \left( \frac{\text{mean} - \text{modian}}{\text{S} \cdot \text{p}} \right) = 3 \left( \frac{\text{x} - \text{M}}{\text{6}} \right)$
	since we know, $z = 3M = 2\bar{x}$
	Bowley's Co-efficient of sknewness (Galton's).
0	$S = (Q_3 - Q_2) - (Q_2 - Q_1)$ $= (Q_3 - Q_2) + (Q_2 - Q_1)$
	Kurtosis (Based on Moments)
	$\beta_2 = M_4$ or $N_1 = \beta_2 - 3$ $M_2^2$
	β <sub>2</sub>
	3 Mesokwithc (Hormal)
	<3 Platykuntic  >3 leptokuntic



hi-squared CDF is given







	Hypothesis Testing about one
7	600)
	Best Estimate p=x/n
150	standard 6 p = P(I-P)  deviation
	deviation \ n
14/16	
	Conditions
	The sample is a simple random
	Somple
	Sample values are independent
	of each others
-	np(1-p)710
80	Test statistic for proportions
Ti Ha	P-P
ATT HE WAY	Z= (PO(1-PO)
0	VIOLO
	1 5 5 1 5 1 4 5 1 5 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1
	Hypothesis Testing: Single parameter The mean, when variance is
0	The imean when variance is
	Known Test statistic
	De-llo
	Z = 61Vn
	The state of the s
	The Mean, when Variance is unknown
	en unknown
	IS CAIRTO

