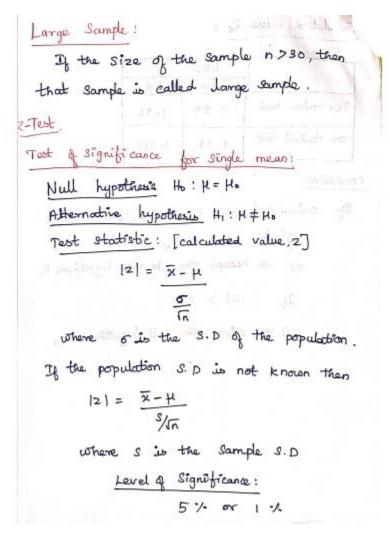


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TOPIC: 3.2 Large sample test based on Normal distribution for single mean



393	Los	
elc=3	14.	51.
ive total test	2.5%	1.96
ne tailed best	2. 33	1- 645

Executated value 2 < Tabulated value 2x (i.e.) |2| < 2x =) We accept the null hypothesis Ho

If |2| > 2x =) we reject the null hypothesis Ho.



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1. A sample of 900 members has a mean of 3.4 cms and S.D 2.61 cms. Is the Sample from a large population of mean 3.25 cm and S.D 2.61 cms.

Solo.

Null hypothesis Ho!

Assume that the sample has been drawn from the population with mean
$$\mu=3.25$$

Alternative hypothesis H₁:

 $|Z| = \left| \frac{\overline{x} - \mu}{\frac{\sigma}{n}} \right|$

Criven $\mu=900$
 $\mu=3.25$ cm $\overline{x}=3.4$ cm

 $\sigma=2.61$ cm

 $\sigma=2.61$ cm

 $\sigma=2.61$ cm

 $\sigma=2.61$ cm

 $\sigma=2.61$ cm

 $\sigma=2.61$ cm

Level of Significance: [203]

LOS = 5% (Two tailed test)

Zx = 1.96

Conclusion:

1.724 L 1.96

121 L 2x

we accept the null hypothesis to.

The Sample has been drawn from the population with mean
$$\mu = 3-25$$



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e. A random sample of 200 employee's at a large corporation showed their average.

age to be 42.8 yrs with a S.D of 6.8 yrs

Test the hypothesis Ho: H=40 against
H,: H>40 at d=0.01 LOS.

Null hypothesis Ho: H=40

Atternative hypothesis H,: H>40

(one tailed Right).
H=40, n=200 \$\overline{\pi} = 42.8 yrs

Test Statistic:
$$|\vec{A}| = |\vec{x} - \vec{\mu}| = |\frac{42.8 - 40}{6.8/(200)}| = 6.747$$

L.D.S = 1 %.

Critical value (calculated value)

At 1% (one tailed test)

2 = 2.33

Conclusion:

5.747 > 2.33

121 >2

we reject the null hypothesis Ho.