

S.A. JAIPURIA COLLEGE

DEPARTMENT OF STATISTICS

B.Sc Part-II Statistics (General) Practical

Topic: Continuous Distribution**date:** _____

- Let X is a Normal variable with mean 30 and standard deviation 5. Find out the probabilities that
 - $26 \leq X \leq 40$
 - $X \geq 45$
 - $X \leq 35$
 - $|X-30| \geq 5$
- The height distribution of a group of 100000 men is normal with mean height 64.5" and Standard Deviation 4.5". Find the number of men whose height is
 - less than 69" but greater than 55.5"
 - less than 55.5"
 - more than 73.5"
- A sample of 500 dry battery cells tested to find the length of life produced the results $\mu = 12$ hours, $\sigma = 3$ hours. Assume that the data are normally distributed. What percentage of battery cells are expected to have life.
 - ≥ 15 hours
 - ≤ 6 hours
 - Between 10 and 14 hours
- In a distribution exactly Normal, 7% of the items are under 35 and 89% are under 63. What are the mean and standard deviation of the distribution?
- The mean of normal distribution is 60 and 6% of the values are greater than 70. Find the standard deviation of this distribution.
- The yield in gram for 250 plants of a variety of soybean is shows below in the form of frequency table.

yield	5.5- 15.5	15.5- 25.5	25.5- 35.5	35.5- 45.5	45.5- 55.5	55.5- 65.5	65.5- 75.5
Frequency	12	27	75	67	44	17	8

Fit a Normal Distribution to the data. Draw the fitted curve and histogram of the observed distribution on the same graph paper.

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