

1. List the properties of Normal distribution.
2. Give the area under curve of  $\mu \pm \sigma$ ,  $\mu \pm 2(\sigma)$  and  $\mu \pm 3(\sigma)$
3. X is a normal variate with mean = 30 and standard deviation = 5. Find the probabilities that
  - a.  $26 \leq X \leq 40$
  - b.  $X \geq 45$
  - c.  $|X - 30| > 5$
4. In the distribution exactly normal, 10.03% of the items are under 25 kilogram weight and 89.97% of the items are under 70 kilograms weight. What are the mean and standard deviation of the distribution?