**SKILL-5**

**Prelab:**

1. It is given that 2% of the screw manufactured by a company are defective Poisson

distribution to find the probability that a packet of 100 screw contain:

(a)No defective screw

(b)One defective screw

(c)Two or more defective screw. {Given e ^ (-2)=0.135}

(Solve using Poisson distribution formula)

1. Which of the following statements are true about Standard Normal distribution

a. Mean of the distribution is less than or equal to 1.

b. Standard deviation of the distribution is 1

c. Standard deviation of the distributions is greater than 1

d. Mean of the distribution is 0.

**InLab:**

A distribution of data is a representation showing all possible values (or intervals) and how often those values occur. When a distribution is plotted into a graph, we can observe different shapes of the curve. Based on the shape and other attributes, there exists many types of distributions.

**Implement the following**

1. **Relative frequency distribution graph**
2. **Cumulative relative frequency graph**
3. **bell curve or Gaussian distribution**

**PostLab:**

1. The number of misprints on a page of The Economic Times has a Poisson distribution with mean 1.2. Find the probability that the number of errors -

i. On page 10 is 2;

ii. On page 1 is less than 3;

iii. On first ten pages totals 5;

iv. On all forty pages adds up to at least 3.

1. Generate 10000 random number for

i)Bernoulli Distribution

ii)Normal Distribution

iii)poisson Distribution and plot distribution.