Tutorial-3

1. The number of monthly breakdowns of a computer is a random variable, having a Poisson distribution with mean equal to 1.8. find the probability that this computer will function for a month.
   - i.   Without a breakdown
   - ii.   With only one breakdown
   - iii. With atleast one breakdown

2. The time (in hours) required to repair a machine is exponentially distributed with parameter $\lambda=1/2$

   (i)What is the probability that the repairs time exceeds 2 hour?

   (ii) What is the conditional probability that the repair takes 10 hour given that its duration exceeds 9 hour?

3. In normal distribution 31% of items are under 45 and 8% are over 64 find the mean and standard deviation of the given distribution.