1. The variance of gamma distribution with a=3 and B=5 is.
2. The mean of exponential distribution with B=3 is.
3. Find the 10% Trimmed mean of the data set 3, 6, 12, 23, 11, 8 and 10.
4. If E(x) = 2 and E (2) = 3.2, then E(3z-2x+1) =---
5. If X and Z are independent random variables with Var(x) = 2 and Var(z) = 3, then Var (3Z -2X+1)
6. Let X follows a normal distribution with mean 40 and variance 25. Then mean and variance of Y= (X-40)/5 are respectively.
7. A random sample of 20 students yielded a mean 72 and a variance 16 for scores on a college placement test in mathematics. Assuming the scores to be normally distributed, construct a 98% confidence interval for population variance.
8. A random variable X has a mean 20 and variance 9. Using Chebyshev’s theorem, find P(|X-20|<6).
9. If X follows uniform distribution in [2,5], then write it’s density function.
10. Find mean and s.d of the given data: 1.01, 0.97,1.03, 1.04, 0.99, 0.98, 0.99, 1.01, and 1.03.
11. Find a 99% confidence interval on the mean in Q(10).
12. Given a random variable X having a normal distribution with μ = 50 and σ = 10, find the probability that X assumes a value between 45 and 62.
13. Given a normal distribution with μ = 40 and σ = 6, find the value of x that has 45% of the area to the left.
14. Given a normal distribution with μ = 40 and σ = 6, find the value of x that has 14% of the area to the right.
15. A pair of dice is rolled 180 times. What is the probability that a total of 7 occurs exactly 30 times?