Assignment 2 (Week-2)

Due on 2016-02-16, 05:29 IST

Submitted assignment

Assignment 2 for Week 2

1) If y is a random variable with mean μ, variance σ^2, and c is a constant, then variance of c will be – ***1 point***

- σ^2
- 0
- c
- None of the above

2) If y is a random variable with mean μ, variance σ^2, and c is a constant, then the expected value of 'cy' i.e. E(cy) will be ***1 point***

- c
- μ
- c μ
- None of the above

3) The number of degrees of freedom for computing standard deviation, 's', from a sample of size 'n' equals to – ***1 point***

- (n-1)

- n
- n(n-1)
- None of these

4) Suppose a random sample of size n is taken from a normal population with mean μ and variance σ^2 Then the mean and variance of sample mean ($\bar{X}$) are – ***1 point***

- (μ, $1/\sigma^2$)
- (μ, σ^2)
- (μ, $\frac{\sigma^2}{n}$)
- None of the above

5) If X is normally distributed with mean 50 and standard deviation 4. For a sample of size, n=25, what will be the mean and variance of sample mean $\bar{X}$ ***2 points***

- (50, 4)
- (50, 4/25)
- (50, 16/25)
- None of the above

6) Using the data given in question no. 5, the approximate value of P($\bar{X}$ <= 49) will be ***1 point***

- 0.0011
- 0.1056
- 0.7251
- None of the above

7) Using the data given in question no. 5, compute the P(49 < $\bar{X}$ < 52) ***1 point***

- 0.0402

- 0.3020
- 0.6098
- 0.8884

8) Using the data given in question no. 5, compute the P($\bar{X}$ >= 52) ***1 point***

- 0.0060
- 0.8242
- 0.5402
- None of the above

9) Calculate the mean of the following dataset: 5,10,9,10,5,3,2,1,10,7,3,10,5,5,5 ***1 point***

- 6
- 7
- 5
- 4

10) Find out the mediun of the dataset given in question number 9 ***1 point***

- 4
- 8
- 5
- 7

11) Find out the mode of the dataset given in question number 9 ***1 point***

- 5
- 6
- 7
- 10

12) Find out the range of the dataset given in question number 9 ***1 point***

- 5
- 6
- 7
- 9

13) Find out the standard deviation of the dataset given in question number 9 ***1 point***

- 3.99
- 3.54
- 3.14
- 4.01

14) Find out the inter quartile range (IQR) of the dataset given in question number 9 ***1 point***

- 6.29
- 6.01
- 7.00
- 6.25