

## STATISTICS WORKSHEET-1

**Q1 to Q9 have only one correct answer. Choose the correct option to answer your question.**

1. Bernoulli random variables take (only) the values 1 and 0.

- a) **True**
- b) False

2. Which of the following theorem states that the distribution of averages of iid variables, properly normalized, becomes that of a standard normal as the sample size increases?

- a) **Central Limit Theorem**
- b) Central Mean Theorem
- c) Centroid Limit Theorem
- d) All of the mentioned

3. Which of the following is incorrect with respect to use of Poisson distribution?

- a) Modeling event/time data
- b) **Modeling bounded count data**
- c) Modeling contingency tables
- d) All of the mentioned

4. Point out the correct statement.

- a) The exponent of a normally distributed random variables follows what is called the log- normal distribution
- b) Sums of normally distributed random variables are again normally distributed even if the variables are dependent
- c) The square of a standard normal random variable follows what is called chi-squared distribution
- d) **All of the mentioned**

5. \_\_\_\_\_ random variables are used to model rates.

- a) Empirical
- b) Binomial
- c) **Poisson**
- d) All of the mentioned

6. 10. Usually replacing the standard error by its estimated value does change the CLT.

- a) True
- b) **False**

7. 1. Which of the following testing is concerned with making decisions using data?

- a) Probability
- b) **Hypothesis**
- c) Causal
- d) None of the mentioned

8. 4. Normalized data are centered at \_\_\_\_\_ and have units equal to standard deviations of the original data.

- a) 0
- b) 5
- c) 1
- d) **10**

9. Which of the following statement is incorrect with respect to outliers?

- a) Outliers can have varying degrees of influence
- b) Outliers can be the result of spurious or real processes
- c) **Outliers cannot conform to the regression relationship**
- d) None of the mentioned