**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

**Answer**: a) True

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

**Answer**: a) Central Limit Theorem

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

**Answer:** b) Modeling bounded count data

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**

**Answer**: d) All of the mentioned

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

a) Empirical

b) Binomial

**c) Poisson**

d) All of the mentioned

**Answer**: c) Poisson

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

a) True

**b) False**

**Answer**: b) False

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

a) Probability

**b) Hypothesis**

c) Causal

d) None of the mentioned

**Answer**¨ b) Hypothesis

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

original data.

**a) 0**

b) 5

c) 1

d) 10

**Answer**: a) 0

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

**Answer**: c) Outliers cannot conform to the regression relationship