STATISTICS WORKSHEET-1

1. Bernoulli random variables take (only) the values 1 and 0.
   a) True b) False

ANS. 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

ANS. 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

Ans. 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

Ans. all of the mentioned

5. _____ random variables are used to model rates.
   a) Empirical b) Binomial c) Poisson d) All of the mentioned

Ans poission

6. 10. Usually replacing the standard error by its estimated value does change the CLT.
   a) True b) False

Ans 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

Ans. 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

Ans. 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

Ans. Outliers cannot conform to the regression relationship