FLIP ROBO TECHNOLOGIES

INTERNSHIP – DS0523

PROJECT - BATCH DS2311

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STATISTICS WORKSHEET - 1

In Q1 to Q9 have only one option is correct, choose the correct option:

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

Solution: 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

Solution: 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

Solution: b) Modelling 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 mentione

Solution: c) The square of a standard normal random variable follows what is called chi-squared distribution

5. _____ random variables are used to model rates.
a) Empirical
b) Binomial

c) Poisson
d) All of the mentioned

Solution: c) Poisson

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

Solution: 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

Solution: b) Hypothesis

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

Solution: 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

Solution: c) Outliers cannot conform to the regression relationship