**STATISTICS WORKSHEET-6**

1. Which of the following can be considered as random variable?

a) The outcome from the roll of a die

b) The outcome of flip of a coin

c) The outcome of exam

d) All of the mentioned

Answer: - D

2. Which of the following random variable that take on only a countable number of possibilities?

a) Discrete

b) Non Discrete

c) Continuous

d) All of the mentioned

Answer: - A

3. Which of the following function is associated with a continuous random variable?

a) pdf

b) pmv

c) pmf

d) all of the mentioned

Answer: - A

4. The expected value or \_\_\_\_\_\_\_ of a random variable is the center of its distribution.

a) mode

b) median

c) mean

d) bayesian inference

Answer: - C

5. Which of the following of a random variable is not a measure of spread?

a) variance

b) standard deviation

c) empirical mean

d) all of the mentioned

Answer: - A

6. The \_\_\_\_\_\_\_\_\_ of the Chi-squared distribution is twice the degrees of freedom.

a) variance

b) standard deviation

c) mode

d) none of the mentioned

Answer: - a

7. The beta distribution is the default prior for parameters between \_\_\_\_\_\_\_\_\_\_\_\_

a) 0 and 10

b) 1 and 2

c) 0 and 1

d) None of the mentioned

Answer: - C

8. Which of the following tool is used for constructing confidence intervals and calculating standard errors for difficult statistics?

a) baggyer

b) bootstrap

c) jacknife

d) none of the mentioned

Answer: - B

9. Data that summarize all observations in a category are called \_\_\_\_\_\_\_\_\_\_ data.

a) frequency

b) summarized

c) raw

d) none of the mentioned

Answer: - B

10. What is the difference between a boxplot and histogram?

Answer: - Histograms and box plots are graphical representations for the frequency of numeric data values. ... Histograms are preferred to determine the underlying probability distribution of a data. Box plots on the other hand are more useful when comparing between several data sets.

11. How to select metrics?

Answer: -

12. How do you assess the statistical significance of an insight?

Answer: -

Create a null hypothesis.

Create an alternative hypothesis.

Determine the significance level.

Decide on the type of test you'll use.

Perform a power analysis to find out your sample size.

Calculate the standard deviation.

Use the standard error formula.

Determine the t-score.

Find the degrees of freedom.

Use a t-table.

13. Give examples of data that doesnot have a Gaussian distribution, nor log-normal.

Answer: - Weibull distribution

14. Give an example where the median is a better measure than the mean.

Answer: - if you have a skewed distribution, the median is often the best measure of central tendency.

15. What is the Likelihood?

Answer: - In statistics, the likelihood function (often simply called the likelihood) measures the goodness of fit of a statistical model to a sample of data for given values of the unknown parameters