

## **STATISTICS WORKSHEET- 6**

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

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
  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
  3. Which of the following function is associated with a continuous random variable?
    - a) pdf
    - b) pmv
    - c) pmf
    - d) all of the mentioned
  4. The expected value or \_\_\_\_\_ of a random variable is the center of its distribution.
    - a) mode
    - b) median
    - c) mean
    - d) bayesian inference
  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
  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
  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
  8. Which of the following tool is used for constructing confidence intervals and calculating standard errors for difficult statistics?
    - a) baggyer
    - b) bootstrap
    - c) jackknife
    - d) none of the mentioned
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9. Data that summarize all observations in a category are called \_\_\_\_\_ data.
- a) frequency
  - b) summarized
  - c) raw
  - d) none of the mentioned

**Q10 and Q15 are subjective answer type questions, Answer them in your own words briefly.**

- 10. What is the difference between a boxplot and histogram?
- 11. How to select metrics?
- 12. How do you assess the statistical significance of an insight?
- 13. Give examples of data that doesnot have a Gaussian distribution, nor log-normal.
- 14. Give an example where the median is a better measure than the mean.
- 15. What is the Likelihood?