


**STATISTICS– WORKSHEET 3**

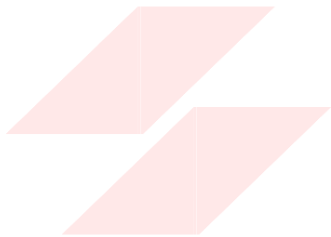
**Q1 to Q9 have only one correct answer. Choose the correct option to answer your question.**

1. Which of the following is the correct formula for total variation?
  - a) Total Variation = Residual Variation – Regression Variation
  - b) Total Variation = Residual Variation + Regression Variation
  - c) Total Variation = Residual Variation \* Regression Variation
  - d) All of the mentioned
2. Collection of exchangeable binary outcomes for the same covariate data are called \_\_\_\_\_ outcomes.
  - a) random
  - b) direct
  - c) binomial
  - d) none of the mentioned
3. How many outcomes are possible with Bernoulli trial?
  - a) 2
  - b) 3
  - c) 4
  - d) None of the mentioned
4. If  $H_0$  is true and we reject it is called 
  - a) Type-I error
  - b) Type-II error
  - c) Standard error
  - d) Sampling error
5. Level of significance is also called:
  - a) Power of the test
  - b) Size of the test
  - c) Level of confidence
  - d) Confidence coefficient
6. The chance of rejecting a true hypothesis decreases when sample size is:
  - a) Decrease
  - b) Increase
  - c) Both of them
  - d) None
7. Which of the following testing is concerned with making decisions using data?
  - a) Probability
  - b) Hypothesis
  - c) Causal
  - d) None of the mentioned
8. What is the purpose of multiple testing in statistical inference?
  - a) Minimize errors
  - b) Minimize false positives
  - c) Minimize false negatives
  - d) All of the mentioned

9. Normalized data are centred at \_\_\_\_ and have units equal to standard deviations of the original data
- a) 0
  - b) 5
  - c) 1
  - d) 10

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

- 10. What Is Bayes' Theorem?
- 11. What is z-score?
- 12. What is t-test?
- 13. What is percentile?
- 14. What is ANOVA?
- 15. How can ANOVA help?



# FLIP ROBO