

# **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	
Answer b	
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	
Answer c	
3. How many outcomes are possible with Bernoulli trial?	
a) 2	
b) 3	
c) 4	
d) None of the mentioned	
Answer a	
4. If Ho is true and we reject it is called	
a) Type-I error	
b) Type-II error	
c) Standard error	
d) Sampling error	
Answer a	
5. Level of significance is also called:	
a) Power of the test	
b) Size of the test	
c) Level of confidence	
d) Confidence coefficient	
Answer c	
6. The chance of rejecting a true hypothesis decreases when sample size is:	
a) Decrease	
b) Increase	

#### Answer b

c) Both of them

- 7. Which of the following testing is concerned with making decisions using data?
  - a) Probability
  - b) Hypothesis
  - c) Causal

d) None



d) None of the mentioned

### Answer d

- 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

## Answer d



- 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

## Q10and 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?

