

## **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

<ul><li>c) Total Variation = Residual Variation * Regression Variation</li><li>d) All of the mentioned</li></ul>	
2. Collection of exchangeable binary outcomes for the same covariate data are calledoutcomes of the same covariate	omes.
<ul> <li>3. How many outcomes are possible with Bernoulli trial?</li> <li>a) 2</li> <li>b) 3</li> <li>c) 4</li> <li>d) None of the mentioned</li> </ul>	
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	
<ul> <li>5. Level of significance is also called:</li> <li>a) Power of the test</li> <li>b) Size of the test</li> <li>c) Level of confidence</li> <li>d) Confidence coefficient</li> </ul>	
<ul><li>6. The chance of rejecting a true hypothesis decreases when sample size is:</li><li>a) Decrease</li><li>b) Increase</li><li>c) Both of them</li><li>d) None</li></ul>	
<ul> <li>7. Which of the following testing is concerned with making decisions using data?</li> <li>a) Probability</li> <li>b) Hypothesis</li> <li>c) Causal</li> <li>d) None of the mentioned</li> </ul>	
<ul> <li>8. What is the purpose of multiple testing in statistical inference?</li> <li>a) Minimize errors</li> <li>b) Minimize false positives</li> <li>c) Minimize false negatives</li> <li>d) All of the mentioned</li> </ul>	



- 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?

