# INDIAN INSTITUTE OF INFORMATION TECHNOLOGY DHARWAD
## QUIZ
### DS101 MATHEMATICS FOR DATA SCIENCE

Date: 15-03-2021      Duration: 45 minutes      Max. Marks: 20      Reg. No.:

**Note:**
- *Clearly mention the assumptions made (if any) in derivations or solving problems.*
- *Answer all questions, briefly to the point. All questions carry equal marks.*

1. Rejecting the null hypothesis when it is true is called a(n) _____ error.

2. The probability of a type II error is referred to as_____

3. A conjecture about a population parameter is called a(n)_____

4. To test the claim that the mean is greater than 87, you would use a(n)_____-tailed test.

5. If you wish to test the claim that the mean of the population is 100, the appropriate null hypothesis is_____

6. The average score of data science examination is 72 and standard deviation is 8. Find the 99% confidence intervals_____

7. If all the points fall on a straight line, the value of r will be_____ or_____

8. The sign of r and _____will always be the same.

9. The equation of the regression line used in statistics is _____

10. The strength of the relationship between two variables is determined by the value of_____

11. A statistical graph of two variables is called a(n)_____

12. The x variable is called the _____variable.

13. When the value of a is increased, the probability of committing a type I error is_____

14. The average height of 1st year students was 150cm and SD was 5cm. Find the 95% confidence intervals_____

15. Power of the test_____

16. Predicted final grade in class = 63.95 + 2.16*(hours of study). Someone who studies for 9 hours what was his/her final grade_____

17. From Question-16. Someone who studies for 0.5 hours what was his/her final grade_____

18. x and y variables measured from independent samples. What was the r=_____

19. Covariance of x and y is 0.81 and variance of x is 0.90. Find the regression co-efficient _____

20. The mean of x and y are 6.3 and 8.1 and regression coefficient value is 0.72. What was the regression equation_____?

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