Assignment 2

The due date for submitting this assignment has passed. All of our records show that you did not submit this assignment.

1. The mean diameter and standard deviation of tubes manufactured in a company are 10 cm and 1.5 cm respectively. By 95% of the tubes will have diameters between:

   a. 9.5 and 10.5
   b. 9 and 11
   c. 8 and 12
   d. 6 and 14

   No. the answer is incorrect. Score: 0.33
   Accepted Answers: 10.5 and 11.5

2. With respect to the TI-83, if the probability of occurrence of a bolt of certain diameter is 0.1498, what is the diameter of that bolt?

   a. 10.09
   b. 10.17
   c. 11.09
   d. 12.17

   No. the answer is incorrect. Score: 0.33
   Accepted Answers: 9.99, 10.17

3. Calculate the standard error for the following sample data: 18.12, 15.13, 14.15, 16.15, 14.21

   a. 1.3
   b. 1.5
   c. 1.7
   d. 1.9

   No. the answer is incorrect. Score: 0.33
   Accepted Answers: 1.4

4. If the coefficients of variation of two populations are same and if the ratio of mean of population 1 to that of population 2 is 1.3, what is the value of standard deviation of population 1 divided by that of population 2?

   a. 1.3
   b. 1.6
   c. 0.7
   d. 0.5

   No. the answer is incorrect. Score: 0.33
   Accepted Answers: 1.1

5. A new drug (G) is being tested against an existing one (B) and it is proposed to introduce it only if it is better than the old. What should be the null and an alternate hypothesis that we want to perform a two sample t-test?

   a. $H_0: \mu_B = \mu_G$, $H_1: \mu_B < \mu_G$
   b. $H_0: \mu_B = \mu_G$, $H_1: \mu_B > \mu_G$
   c. $H_0: \mu_B = \mu_G$, $H_1: \mu_B < \mu_G$
   d. $H_0: \mu_B = \mu_G$, $H_1: \mu_B > \mu_G$

   No. the answer is incorrect. Score: 0.33
   Accepted Answers: $H_0: \mu_B = \mu_G$, $H_1: \mu_B < \mu_G$

6. To increase yield per hec (where yield is the probability)

   a. increase p-value
   b. reduce p-value
   c. p too small
   d. p too large

   No. the answer is incorrect. Score: 0.33
   Accepted Answers: Increase p-value

7. If I test the placebo and the drug on the same subject then I can perform a

   a. two sample t-test
   b. one sample t-test
   c. paired t-test
   d. 2 test

   No. the answer is incorrect. Score: 0.33
   Accepted Answers: Paired t-test

8. While performing t-test, if the statistic is greater than the t table value then,

   a. accept null hypothesis
   b. reject null hypothesis
   c. no conclusion can be drawn
   d. accept alternative hypothesis

   No. the answer is incorrect. Score: 0.33
   Accepted Answers: Reject null hypothesis

9. A company is marketing a weight loss product whose average handle strength is 10 cm. If we take 10 samples and measure their tensile strength, the mean comes out to be 9.1 cm. If we want to conclude that the samples come from the same population at 99% confidence level what should be the minimum standard deviation of the sample set permitted?

   a. 1.2
   b. 1.3
   c. 1.4
   d. 1.5

   No. the answer is incorrect. Score: 0.33
   Accepted Answers: 1.3

10. Two drug A (S) and B were tested on 10 and 12 subjects respectively for lowering blood chloride and the data (in mmol) are given below. At 95% confidence level

    a. $\bar{x}$
    b. $s$

    Drug A: 1.2, 1.3
    Drug B: 1.0, 1.5, 1.4, 1.3

    No. the answer is incorrect. Score: 0.33
    Accepted Answers: Drug A is as good as Drug B

11. The answer is incorrect. Score: 0.33
    Accepted Answers: Drug A is better than Drug B

12. The answer is incorrect. Score: 0.33
    Accepted Answers: Drug B is not good

13. The answer is incorrect. Score: 0.33
    Accepted Answers: Drug A is as good as Drug B