Unit 4 - Week 3

Assignment 3

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-02-19, 23:59 IST.

1) If the true proportion of customers who are below 20 years is P=0.35, what is the probability that a sample size 100 yields a sample proportion between 0.3 to 0.4?   **1 point**

○ 0.961
○ 0.827
○ 0.706
○ 0.53

No, the answer is incorrect.
Score: 0
Accepted Answers:
0.706

2) Statement: The chi-square distribution is a family of distribution depending on the degree of freedom, i.e., = n-k-1.   **1 point**
Where n = Population observations
      k = sample observations
State, whether the above statement is:

○ True
○ False

No, the answer is incorrect.
Score: 0
Accepted Answers:
False

3) A shaft manufacturing company is having a permissible variance of 9mm2 in the diameter of manufactured shafts. A sample of 10 shafts is to be tested, what is the permissible upper limit of standard deviation for the sample at α = 0.05?   **1 point**

○ 3.33
○ 4.11
○ 5.22
○ 6.11

No, the answer is incorrect.
Score: 0
Accepted Answers:
4.11

4) Why one should not go for sampling?   **1 point**

○ Less costly to administer than a census.
○ The person authorizing the study is comfortable with the sample
○ Because the research process is sometimes destructive
○ None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
None of the above

5) Stratified random sampling is a method of selecting a sample in which   **1 point**

○ the sample is first divided into strata, and then random samples are taken from each stratum
○ various strata are selected from the sample
○ The population is first divided into strata, and then random samples are drawn from each stratum
○ None of these alternatives is correct

No, the answer is incorrect.
Score: 0
Accepted Answers:
The population is first divided into strata, and then random samples are drawn from each stratum

6) State whether true or false: **1 point**
Statement: Sampling error occurs when the sample is representative of the population

○ True
○ False

No, the answer is incorrect.
Score: 0
Accepted Answers:
False

7) Which of the following is a type of sampling distribution?   **1 point**

○ Sampling distribution of sample median.
○ Sampling distribution of sample standard deviation.
○ Sampling distribution of sample mode.
○ Sampling distribution of sample proportion.

No, the answer is incorrect.
Score: 0
Accepted Answers:
Sampling distribution of sample proportion.

8) If customers at petrol pump arrive at an average of 4 customers in 2 minutes. What is the probability of exactly 5 customers arriving in the 6-minute interval?   **1 point**

○ 0.0256
○ 0.0128
○ 0.0088
○ None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
0.0128

9) What is the probability of scoring 80 marks out of 100 in a class test when the average marks is 45 and the standard deviation is 15. Assume marks to be normally distributed.   **1 point**

○ 0.02
○ 0.005
○ 0.01
○ None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
None of the above

10) In a school population, 70 percentage students are female. Suppose 50 students are sampled, what is the probability that exactly 20 students are female?   **1 point**

○ 5.129
○ 6.053
○ 7.743
○ None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
7.743