Unit 5 - Week 4

Course outline

How does an NPTEL online course work?

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- Hypothesis Testing- I
- Hypothesis Testing- II
- Hypothesis Testing- III
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- Important Data Sets
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Assignment 4

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

Due on 2020-02-26, 23:59 IST.

1) In hypothesis testing if,
H1: $\mu < 5$ 1 point

- Test is upper tail Test
- Test is lower tail Test
- Test is two tail Test
- Test is not possible

No, the answer is incorrect.
Score: 0
Accepted Answers:
Test is lower tail Test

2) When H0 = $\mu \le 10$, $\alpha = 0.1$, n = 20 and standard deviation = 2.5. The Confidence interval will be: 1 point

- (-11.72,+11.72)
- (-infinity to +11.72)
- (-10.72, +10.72)
- None of the above

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

3) State True or False   1 point
Statement: In jupyter notebook stats.norm.cdf() is used to calculate percent point function.

- True
- False

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

4) Let X be a sample taken from a normally distributed population. A survey agency claims that the mean of the population is 12. Calculate the p-value.   1 point
X= [10,12,20,21,24,18,8]

- 0.24
- 0.124
- 0.17
- None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
0.124

5) In hypothesis testing, the tentative assumption about the population parameter is   1 point

- The alternative hypothesis
- The null hypothesis
- either the null or the alternative
- None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
The null hypothesis

6) A sample of 200 employees showed that 70 were females. A survey of an MNC claims 40% of their employees are women.   1 point
Test the survey claim with α=0.05

- Do not reject H0
- Reject null hypothesis
- All of the above
- None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
Do not reject H0

7) Proportions_z test (count, sample, P) function, in Python programming is used for   1 point

- Two tail test
- Upper tail test
- Lower tail test
- All of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
All of the above

8) For H0: μ = 25, what is the confidence interval for standard deviation = 5, α = 0.05 and n = 10?   1 point

- (20.7, 28.5)
- (21.9, 30.2)
- (21.9,28.1)
- None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
(21.9,28.1)

9) State True or False   1 point
Statement: For constant n, increasing confidence interval increases type II error.

- True
- False

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

10) H0: μ = 7   1 point
H1: $\mu < 7$
Determine the probability of type II error if μ = 6.5 at 5% significance level. (σ = 2.5 and n = 100).

- 0.253
- 0.205
- 0.458
- 0.361

No, the answer is incorrect.
Score: 0
Accepted Answers:
0.361