

# Unit 6 - Week 5

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## Assignment 5

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

Due on 2020-03-04, 23:59 IST.

1) Null hypothesis,  $H_0 : \mu_1 - \mu_2 \leq 0$  is a

Upper tail test

Lower tail test

Two tail test

F Test

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
Upper tail test

2) At an excavation site, 15 pits are excavated using machine A and 15 are excavated using machine B randomly. Machine A is a standard excavation machine and B is the modified excavation machine. The two average excavation times are 120 and 100 minutes respectively. The manufacturer of machine A and B is interested in reducing excavation time. What conclusions can the machine manufacturer draw about the effectiveness of machine B, using  $\alpha = 0.05$  and  $\sigma = 10$  minutes?

Machine B is not effective

Can't say anything

Both machines are equally effective

Machine B is effective.

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
Machine B is effective.

3) State true or False  
Statement : In F-Test, the lower tail test is not possible

True

False

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

4) A random sample of "height" of 10 students of section 10th-A, with a standard deviation of 5.4 cm in height, and another random sample of "height" of 15 students of section 10th-B, with a standard deviation of 6 cm in height is taken. The class teacher wants to know, which section is having the least variability in the height of students at 90% confidence interval.

Section A has the least variability

Section B has the least variability

Both may have same variability

None of the above

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
Both may have same variability

5) If we have a sample size of 20 and the population standard deviation is known we will use:

t-test for hypothesis testing

z-test for hypothesis testing

both t and z test

F-test

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
z-test for hypothesis testing

6) There are three canteens in a college. The sale of item "A" in those three canteens from Monday to Friday is as follows:

	canteen1	canteen2	canteen3
4	3	5	
6	2	8	
7	1	2	
2	7	2	
5	6	2	

Is there any significant difference between the mean sales of product A, at  $\alpha = 0.05$ ?

Yes

No

Can't State

None of the above

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

7) In problem no.6 what is the p-value calculated?

0.284

0.0284

0.758

0.0758

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
0.758

8) In problem no.6 what is the F-value calculated?

0.284

0.0284

0.758

0.0758

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
0.284

9) In problem no.6 what is the MSE(Mean square error)value calculated?

3.333

1.667

2.667

5.867

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
5.867

10) "pandas.melt" function in python programming is used for:

To change dataframe format from long to wide.

To unpivot columns to the row axis.

Both (a) and (b)

None of the above

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
To unpivot columns to the row axis.