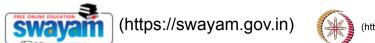
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reviewer4@nptel.iitm.ac.in ~

NPTEL (https://swayam.gov.in/explorer?ncCode=NPTEL) » Quantitative Methods in Chemistry (course)

Announcements (announcements) About the Course (https://swayam.gov.in/nd1_noc20_cy02/preview)

Ask a Question (forum) Progress (student/home) Mentor (student/mentor)

Unit 8 - Week 5

Course outline

How does an NPTEL online course work?

Week 0

MATLAB

Week 1

Week 2

Week 3

Week 4

Week 5

- Introduction to Analysis of Variance (ANOVA) and comparing precisions (unit? unit=55&lesson=56)
- Protocol for undertaking ANOVA - Part 01 (unit? unit=55&lesson=57)

Assignment 5

The due date for submitting this assignment has passed. Due on 2020-03-04, 23:59 IST. As per our records you have not submitted this assignment.

Click here for Statistical Tables (https://drive.google.com/open?id=1r1GOf4bgh7rflvu8O5axkLl7GM1tZvGq) are provided

- 1) When undertaking t-tests on 7 different samples to find out whether these samples have different means at 98% confidence level, the chances of committing Type 1 error are:
 - 7.8 %
 - 15.9 %
 - **40.8 %**
 - 22.1 %
 - 13.2 %

No, the answer is incorrect.

Score: 0

Accepted Answers:

13.2 %

2) For a sample set given below, the $F_{critical}$ values at 95% and 99% confidence levels, respectively, will be:

1 point

1 point

Protocol for	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5				
undertaking	534	359	624	395	567				
ANOVA - Part									
02 (unit? unit=55&lesson=58)	435	323	498	333	713				
	487	388	582	372	675				
ANOVA and Least Significant	545	402	642	423	728				
Difference	402	342	597	398	775				
(LSD) (unit?	519	369	637	354	598				
unit=55&lesson=59)	477	346	493	373	689				
ANOVA and									
solved Least Significant	2.69, 4.02	2							
Difference	5.75, 13.8								
example (unit?	5.75, 4.02								
unit=55&lesson=60)	2.69, 13.8	34							
O Quiz :	2.49, 3.59								
Assignment 5 (assessment?	No, the answe								
name=61)	Score: 0	i is incorrect.							
Assignment 5	Accepted Ans	wers:							
solutions (unit?	2.69, 4.02								
unit=55&lesson=72)		-		mean square fact	or and mean square error 1 point				
Subjective	values (rounded	off to whole numl	oers) are:						
Assignment 1 (/noc20_cy02/subjective?	123967, 2	2805							
name=62)	298567, 3	3726							
O Quantitative	126966, 2	2736							
Methods in	8875, 234	12							
Chemistry:	98900, 5600								
Week 5 Feedback Form	No, the answer is incorrect.								
(unit?	Score: 0								
unit=55&lesson=63)	Accepted Answers: 126966, 2736								
Lecture									
materials (unit? unit=55&lesson=129)	4) At 99% confi		-	ifference value (r	ounded off to whole number) 1 point				
		et giveri ili Questi	011 2 15.						
Week 6	770								
Wook 7	344								
Week 7	88								
Week 8	O 77								
	34								
Week 9	No, the answe Score: 0	r is incorrect.							
Week 10	Accepted Ans	wers:							
Week 11			eans of following s	amples are statist	ically similar at 99% 1 point				
Week 12	confidence level:								
	Sample 1	and Sample 3							
Download Videos	Sample 2	and Sample 3							
	Sample 2	and Sample 4							
Text Transcripts	Sample 3	and Sample 5							

Sample 1, Sa	imple 3 and Sa	ample 5			
No, the answer is	incorrect.				
Score: 0 Accepted Answers	3:				
Sample 2 and Sar					
Five samples, each partial ANOVA table	-	-	re analysed by AN	NOVA at 95% confidence	ce level. The
partial / ti vo v/ table	c is provided b	CIOW			
Course of					
Source of Variation	SS	df	MS	F	
		uj	IVIS	<u> </u>	
Between		_			
Groups	Α	D	13924	3.61	
Within					
Groups	В	Ε	G		
Total	С	F			
			-		
Provide the val	ues for A-G				
6) For the samples	being compar	ed in above da	ta, the following s	tatement(s) is/are true:	1 point
At 95% confid	dence level, the	e means of all t	the samples are s	imilar	
At 95% confid	dence level, th	e means of at l	east two samples	are different	
			the samples are s		
			east two samples	are different	
There is insuft. No, the answer is		tion to make ar	ly interence		
Score: 0	incorrect.				
Accepted Answers At 95% confidence		ans of at least	two samples are i	different	
At 99% confidence			=		
7) For the samples	being compar	ed in above da	ta, the least signif	icant difference value a	at 95% 1 point
nd 99% confidence	level, respecti	vely, are:			
88, 120					
98, 120					
120, 88					
75, 98					
82, 112					
No, the answer is Score: 0	incorrect.				
Accepted Answers	3:				
82, 112					
8) For two samples .8181 and 0.7172, t			spectively, and sta	andard deviation values	s of 1 point

	1.141	
	0.877	
	1.301	
	0.768	
	0.587	
	, the answer is incorrect. ore: 0	
	cepted Answers: 201	
9) F	or the above data, at 95% and 99% confidence levels, the following holds true:	1 point
	Their precisions are considered statistically similar at both the confidence levels	
	Their precisions are considered statistically different at both the confidence levels	
c	While the precisions are statistically similar at 95% confidence level, they are different at 99 onfidence level	%
c	While the precisions are statistically different at 95% confidence level, they are similar at 99 onfidence level	%
	We need more information to provide any inference	
	, the answer is incorrect. ore: 0	
Ac	cepted Answers:	
Th	eir precisions are considered statistically similar at both the confidence levels	