	A	B	C	D	E	F	G	H	I	J
1	**From the data of marks of students in test given below, test whether the average marks**									
2	**of a student is atleast 60 or not at 95% confidence level.**									
3	**55**	**65**	**60**	**62**	**63**	**50**	**62**	**75**	**68**	**65**
4										
5	Solution:- Here, we have									
6	55	65	60	62	63	50	62	75	68	65
7			Sample size(n)=	10	=COUNT(A6:J6)					
8			Pop. Mean (μ)=	60						
9			Sample Mean(x*)=	62.5	=AVERAGE(A6:J6)					
10			Sample SD(S) =	6.819	=STDEV.S(A6:J6)					
11		Here , we set up Hypothesis as								
12		H0 : μ1 ≥ 60 i.e the average marks of a student is atleast 60.								
13		H1 : μ2 > 60 i.e the average marks of a student is more than 60.								
14		Under H_0 ,test statistics								
15			S.E(x*) =	2.16	=D10/SQRT(D7)					
16			T_{cal} =	1.159	=(D9-D8)/D15					
17			C.L.(1-α) =	1.0						
18			(α) =	0.05	=1-D17					
19			d.f. =	9	=D7-1					
20			T_{tab} =	1.833	=ABS(T.INV(D18,D19))					
21		Decision: - Since $T_{cal} < T_{tab}$,we accept H_0 and reject H_1 with the								
22			conclusion that average marks of student is atleast 60							
23										
24			Name: Pramoon Shrestha							

	A	B	C	D	E	F	G	H
1	**Analyze the given Design.**							
2	**A15**	**B50**	**A40**	**B20**				
3	**B10**	**A25**	**B40**	**C30**				
4	**C40**	**C65**	**C35**	**A45**				
5								
6								
7	**Solution:- Given, design is RBD with 3 treatments and 4 replications.**							
8	**Blocks**		**Treatments**					
9		**A**	**B**	**C**				
10	**I**	**15**	**10**	**40**				
11	**II**	**25**	**50**	**65**				
12	**III**	**40**	**40**	**35**				
13	**IV**	**45**	**20**	**30**				
14								
15	**ANOVA**							
16	***e of Vari***	***SS***	***df***	***MS***	***F***	***P-value***	***F crit***	
17	**Block**	**1006.3**	**3**	**335.42**	**1.5631**	**0.2931**	**4.7571**	
18	**Treatme**	**379.17**	**2**	**189.58**	**0.8835**	**0.461**	**5.1433**	
19	**Error**	**1287.5**	**6**	**214.58**				
20								
21	**Total**	**2672.9**	**11**					
22								
23								
24				**Name: Pramoon Shrestha**				

	A	B	C	D	E	F	G	H
1	**Analyze the given Design.**							
2	**A15**	**B50**	**A40**	**B20**				
3	**B10**	**A25**	**B40**	**C30**				
4	**C40**	**C65**	**C35**	**A45**				
5								
6								
7	**Solution:- Given, design is RBD with 3 treatments and 4 replications.**							
8	**Blocks**		**Treatments**					
9		**A**	**B**	**C**				
10	**I**	**15**	**10**	**40**				
11	**II**	**25**	**50**	**65**				
12	**III**	**40**	**40**	**35**				
13	**IV**	**45**	**20**	**30**				
14								
15	**ANOVA**							
16	***e of Vari***	***SS***	***df***	***MS***	***F***	***P-value***	***F crit***	
17	**Block**	**1006.3**	**3**	**335.42**	**1.5631**	**0.2931**	**4.7571**	
18	**Treatme**	**379.17**	**2**	**189.58**	**0.8835**	**0.461**	**5.1433**	
19	**Error**	**1287.5**	**6**	**214.58**				
20								
21	**Total**	**2672.9**	**11**					
22								
23								
24				**Name: Pramoon Shrestha**				

	A	B	C	D	E	F	G
1	**Analyze the given Design.**						
2	**A15**	**B50**	**C40**	**D20**			
3	**B20**	**A25**	**D40**	**C30**			
4	**A40**	**B25**	**C35**	**D45**			
5	**D25**	**A25**	**B30**	**C40**			
6							
7	**Solution:- Given, design is RBD with 4 treatments and 4 replications.**						
8	**Blocks**		**Treatments**				
9		**A**	**B**	**C**	**D**		
10	**I**	**15**	**50**	**40**	**20**		
11	**II**	**25**	**20**	**30**	**40**		
12	**III**	**40**	**25**	**35**	**45**		
13	**IV**	**25**	**30**	**40**	**25**		
14							
15	**ANOVA Table**						
16	***Source of Variation***	***SS***	***df***	***MS***	***F***	***P-value***	***F crit***
17	**Blocks**	**129.69**	**3**	**43.229**	**0.3238**	**0.8083**	**3.8625**
18	**Treatments**	**204.69**	**3**	**68.229**	**0.5111**	**0.6846**	**3.8625**
19	**Error**	**1201.6**	**9**	**133.51**			
20	**Total**	**1535.9**	**15**				
21							
22		**Name: Pramoon Shrestha**					

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	A	B	C	D	E	F	G	H
1	**Analyze the given Design.**							
2	**A25**	**B20**	**C40**	**A20**				
3	**B20**	**A25**	**C40**	**C30**				
4	**A40**	**B25**	**C35**	**B45**				
5								
6	**Solution:- Given, design is CRD with 3 treatments and 4 replications.**							
7	**Treatments**							
8	**A**	**25**	**40**	**25**	**20**			
9	**B**	**20**	**20**	**25**	**45**			
10	**C**	**40**	**40**	**35**	**30**			
11								
12		**ANOVA Table**						
13								
14		***Source of Variation***	***SS***	***df***	***MS***	***F***	***P-value***	***F crit***
15		**Treatments**	**204.17**	**2**	**102.08**	**1.2783**	**0.3246**	**4.2565**
16		**Errors**	**718.75**	**9**	**79.861**			
17								
18		**Total**	**922.92**	**11**				
19								
20			**Name: Pramoon Shrestha**					

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