	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 : $\mu1 \geq 60$ i.e the average marks of a student is atleast 60.							
13			H1 : $\mu2 > 60$ 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							

Analyze the given Design.

A15	B50	A40	B20
B10	A25	B40	C30
C40	C65	C35	A45

Solution:- Given, design is RBD with 3 treatments and 4 replications.

Blocks	Treatments		
	A	B	C
I	15	10	40
II	25	50	65
III	40	40	35
IV	45	20	30

ANOVA

e of Vari	SS	df	MS	F	P-value	F crit
Block	1006.3	3	335.42	1.5631	0.2931	4.7571
Treatme	379.17	2	189.58	0.8835	0.461	5.1433
Error	1287.5	6	214.58			
Total	2672.9	11				

Name: Pramoon Shrestha

Analyze the given Design.

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B10	A25	B40	C30
C40	C65	C35	A45

Solution:- Given, design is RBD with 3 treatments and 4 replications.

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Name: Pramoon Shrestha

Analyze the given Design.

	A	B	C	D
A15	B50	C40	D20
B20	A25	D40	C30
A40	B25	C35	D45
D25	A25	B30	C40

Solution:- Given, design is RBD with 4 treatments and 4 replications.

Blocks	Treatments			
	A	B	C	D
I	15	50	40	20
II	25	20	30	40
III	40	25	35	45
IV	25	30	40	25

ANOVA Table

Source of Variation	SS	df	MS	F	P-value	F crit
Blocks	129.69	3	43.229	0.3238	0.8083	3.8625
Treatments	204.69	3	68.229	0.5111	0.6846	3.8625
Error	1201.6	9	133.51			
Total	1535.9	15				

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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