Sr. No.	Page No.	No. Of Words(y_i)	y_i^2
1	58	26	676
2	83	16	256
3	361	35	1225
4	116	18	324
5	85	18	324
6	192	25	625
7	291	29	841
8	358	26	676
9	181	16	256
10	114	17	289
11	46	15	225
12	539	11	121
13	176	12	144
14	125	13	169
15	238	22	484
16	20	8	64
17	529	33	1089
18	49	8	64
19	35	19	361
20	388	34	1156
21	15	19	361
22	82	31	961
23	216	24	576
24	368	25	625
25	385	15	225
26	295	29	841
27	306	31	961
28	20	24	576
	Total	**599**	**14495**

Signature Per Sheet(y_i)	No. Of Sheets(f_i)	f_iy_i	$f_iy_i^2$
50	5	250	12500
48	7	336	16128
45	3	135	6075
43	2	86	3698
41	3	123	5043
39	2	78	3042
35	2	70	2450
32	2	64	2048
30	1	30	900
29	1	29	841
25	3	75	1875
22	2	44	968
16	1	16	256
4	2	8	32
3	4	12	36
Total	40	1356	55892

Sr. No.	Population in Thousands	y_i	No. Of Cities(f_i)	f_iy_i	$f_iy_i^2$
1	50-100	75	25	1875	140625
2	100-150	125	19	2375	296875
3	150-200	175	15	2625	459375
4	200-250	225	13	2925	658125
5	250-300	275	22	6050	1663750
6	300-350	325	32	10400	3380000
7	350-400	375	15	5625	2109375
8	400-450	425	17	7225	3070625
9	450-500	475	11	5225	2481875
10	500-550	525	8	4200	2205000
11	550-600	575	6	3450	1983750
12	600-650	625	2	1250	781250
13	650-700	675	1	675	455625
14	700-750	725	3	2175	1576875
15	750-950	850	2	1700	1445000
16	950-1150	1050	3	3150	3307500
17	1150-1400	1275	2	2550	3251250
18	1400-1900	1650	1	1650	2722500
19	1900-2150	2025	2	4050	8201250
20	2150-2500	2325	2	4650	10811250
		Total	201	73825	51001875

	1st Stratum	
S.No.	y_i	y_i^2
1	1100	1210000
2	1079	1164241
3	963	927369
4	956	913936
5	915	837225
6	879	772641
7	879	772641
8	870	756900
9	822	675684
10	818	669124
11	789	622521
12	785	616225
13	738	544644
14	717	514089
15	714	509796
16	693	480249
Total	13717	11987285

	2nd Stratum	
S.No.	y_i	y_i^2
1	659	434281
2	652	425104
3	651	423801
4	640	409600
5	637	405769
6	636	404496
7	629	395641
8	614	376996
9	609	370881
10	601	361201
11	582	338724
12	581	337561
13	580	336400
14	572	327184
15	569	323761
16	566	320356
17	563	316969
18	559	312481
19	552	304704
20	541	292681
21	526	276676
22	520	270400
23	510	260100
24	489	239121
25	483	233289
26	461	212521
27	457	208849
28	444	197136
29	378	142884
30	350	122500
31	347	120409
32	336	112896
33	332	110224
34	301	90601
35	290	84100
36	289	83521
37	284	80656
38	273	74529
39	273	74529
40	264	69696
41	232	53824
42	220	48400
43	203	41209
44	182	33124
45	165	27225
46	163	26569
47	154	23716
48	124	15376
Total	21043	10552671

Strata	1	2	3	4	5	6	7	8	9	10	Strata Total T_{oj}
A	0	1	1	2	5	4	7	7	8	6	**41**
B	6	8	9	10	13	12	15	16	16	17	**122**
C	18	19	20	20	24	23	25	28	29	27	**233**
D	26	30	31	31	33	32	35	37	38	38	**331**
Sample Total ($n\bar{y}_{io}$)	50	58	61	63	75	71	82	88	91	88	$\Sigma T_{ij} = 727$

Sample Units

320	455	334	325	328
340	417	331	358	383
398	420	340	430	383
360	358	370	358	375
350	400	375	378	308
372	355	320	395	400

	1st Class	
	y_i	y_i^2
320	-40	1600
340	-20	400
398	38	1444
360	0	0
350	-10	100
372	12	144
Total	**-20**	**3688**

	2nd Class	
	y_i	y_i^2
455	95	9025
417	57	3249
420	60	3600
358	-2	4
400	40	1600
355	-5	25
Total	**245**	**17503**

	3rd Class	
	y_i	y_i^2
334	-26	676
331	-29	841
340	-20	400
370	10	100
375	15	225
320	-40	1600
Total	**-90**	**3842**

	4th Class	
	y_i	y_i^2
325	-35	1225
358	-2	4
430	70	4900
358	-2	4
378	18	324
395	35	1225
Total	**84**	**7682**

	5th Class	
	y_i	y_i^2
328	-32	1024
383	23	529
383	23	529
375	15	225
308	-52	2704
400	40	1600
Total	**17**	**6611**

		I	II	III	IV	Total (T_{io})	Square Of Total
				BLOCKS			
A	y	8	8	6	8	30	
	y^2	64	64	36	64	228	900
B	y	10	8	9	10	37	
	y^2	100	64	81	100	345	1369
C	y	12	10	10	9	41	
	y^2	144	100	100	81	425	1681
	Total (T_{oj})	30	26	25	27		
	Square Of Total	900	676	625	729		

Treatments Combinations	Blocks						Treatments Totals(T$_i$)	T$_i^2$
	I	II	III	IV	V	VI		
1	-3	0	-9	-12	-47	-39	-110	12100
n	4	4	7	11	18	38	82	6724
s	-14	-3	-6	-8	-23	-3	-57	3249
ns	5	4	6	5	-25	5	0	0
Block Totals(B$_i$)	-8	5	-2	-4	-77	1	G = -85	
B$_i^2$	64	25	4	16	5929	1		

Yate's Method For 2^2 Experiment				
Treatment Combination (1)	Total Yield Form All Blocks (2)	(3).	Factorial Effects Totals (4)	SS (5) = (4)^2/4r
1	-110	-28	-85	301.041667
n	82	-57	249	2583.375
s	-57	192	-29	35.041667
ns	0	57	-135	759.375

ANOVA Table For 2^2 Experiment						
Source Of Variation	df	SS	MSS	Variance Ratio(F)	Tabulated 5%	Tabulated 1%
Blocks	5	1208.708	241.7416	1.37277	2.9	4.556
Treatments	3	3377.792	1125.93067	6.3938	3.2874	5.417
N	1	2583.375	2583.375	14.67	4.5431	8.683
S	1	35.0416667	35.0416667	0.19899	4.5431	8.683
NS	1	759.375	759.375	4.31225	4.5431	8.683
Error	15	2641.458	176.0972			
Totals	23	7227.9583				

(overlapping block)

	Blocks	i	ii	iii	iv
Treatments					
1		47.2	51.1	43.2	
a		44.7	60.3	70.2	61.2
b		45.3	55.8	57.3	52.1
ab		62.7	50.2	55.3	69.3
c		63.4	56.6	63.2	42.3
ac		45.3	52.3	59.8	38.2
bc		57.6	47.7	55.2	48.3
abc		49.3	59.8	56.8	52.5

Taking Deviation y = 49.3						
Treatments	i	ii	iii	iv	Treatments(T)	T²
1	2.1	-1.9	-1.8	6.1	4.5	20.25
a	4.6	-11	-20.9	-11.9	-39.2	1536.64
b	4	-6.5	-8	-2.8	-13.3	176.89
ab	-13.4	-0.9	-6	-20	-40.3	1624.09
c	-14.1	-7.3	-13.9	7	-28.3	800.89
ac	4	-3	-10.5	11.1	1.6	2.56
bc	-8.3	1.6	-5.9	1	-11.6	134.56
abc	0	-10.5	-7.5	-3.2	-21.2	449.44
Blocks(B)	-21.1	-39.5	-74.5	-12.7	-147.8	4745.32
B²	445.21	1560.25	5550.25	161.29		

y	y²		y	y²
2.1	4.41		-1.8	3.24
4.6	21.16		-20.9	436.81
4	16		-8	64
-13.4	179.56		-6	36
-14.1	198.81		-13.9	193.21
4	16		-10.5	110.25
-8.3	68.89		-5.9	34.81
0	0		-7.5	56.25
-1.9	3.61		6.1	37.21
-11	121		-11.9	141.61
-6.5	42.25		-2.8	7.84
-0.9	0.81		-20	400
-7.3	53.29		7	49
-3	9		11.1	123.21
1.6	2.56		1	1
-10.5	110.25		-3.2	10.24
Total	847.6		Total	1704.68
	2552.28			

Grand Total	-147
Raw SS	2552.28
CF	682.65125
Total SS	1869.62875
SSB	281.97375
SST	503.67875
SSE	1083.97635

Source Of Variation	SS	df	MSS	F	Tabulated F 5%
Blocks	281.97375	2	92.99125	1.820903595	3.07
Treatments	503.67875	7	71.95410714	1.393975422	2.49
a	79.38	1	79.38	1.537838121	4.33
b	19.53125	1	19.53125	0.378381215	4.33
ab	16.245	1	16.245	0.314716308	4.33
c	25.92	1	25.92	0.502151223	4.33
ac	258.78125	1	258.78125	5.013399749	4.33
bc	5.12	1	5.12	0.099190365	4.33
abc	98.70125	1	98.70125	1.912150981	4.33
Error	1083.97625	21	51.61791667		
Total	1869.62875	31			

Yates Method For 2³ Experiment.

SS = [3]²/32

Treatment Combination	Total Yield	1	2	3	SS
1	4.5	-34.7	-88.3	-147.8	682.65125
a	-39.2	-53.6	-59.5	-50.4	79.38
b	-13.3	-26.7	-70.7	-25	19.53125
ab	-40.3	-32.8	20.3	-22.8	245
c	-28.3	-43.7	-18.9	28.8	25.92
ac	1.6	-27	-6.15	91	258.78125
bc	-11.6	29.9	16.7	12.8	5.12
abc	-21.2	-9.6	-39.5	-56.2	98.70125