3123 –

(1)

10.69
p.547

Totals

$B_1 = 17$ $T_1 = 10$ $K = 3,\ b = 3,\ n = 9$

$B_2 = 15$ $T_2 = 21$

$B_3 = 17$ $T_3 = 18$

49 49 $T = 49$

For all data

$\Sigma X^2 = 4 + 64 + 49 + 9 + 36 + 36 + 25 + 49 + 25 = 297$

$CM = T^2/n = (49)^2/9 = 266.7778$

$SSTot = 297 - 266.7778 = 30.2222$

$SST = \frac{(10)^2 + (21)^2 + (18)^2}{3} - CM$

$= \frac{865}{3} - CM = 288.3333 - 266.7778$

$= 21.5555$

$SSB = \frac{(17)^2 + (15)^2 + (17)^2}{3} - CM$

$= \frac{803}{3} - CM = 267.6667 - 266.7778$

$= .8889$

$SSE = SSTot - SST - SSB = 30.2222 - 21.5555 - .8889$

$= 7.7778$

From table

Source	df	SS	MS	F	$F_{.05}$
Treat	2	21.5555	10.7778	5.54	6.94
Blocks	2	.8889	.4445	.23	6.94
Error	4	7.7778	1.9445		
Total	8	30.2222			

Test

$H_0: \mu_1 = \mu_2 = \mu_3$

H_a: atleast 2 trt means are different

$\alpha = 0.05$

$F = \frac{MST}{MSE} = 5.54$ num df = 2, den df = 4

Rule: Reject H_0 if $F > F_\alpha = 6.94$

Conclusion $F = 5.54$ is not > 6.94

Do not reject H_0

$\Rightarrow$ There is not sufficient evidence that atleast two means are different