Lab 8   Problem 2 key

(1) a. $Y_{ij} = \mu + \tau_i + \varepsilon_{ij}$, where $\varepsilon_{ij} \sim N(0, \sigma^2)$

b. $H_0: \mu_{control} = \mu_{FRA} = \mu_{ASh} = \mu$

Ha: $\mu_i = \mu$ for at least one i.

(1) $H_0: \tau = 0$
Ha: $\tau \neq 0$

c. $\bar{\bar{X}} = 67$

Treatment	$\bar{X_i}$	$\bar{\bar{X}}$	τ_i
d. Control	94	−67	27
(2) FRA	49.25	−67	−17.75
Ash	57.75	−67	−9.25

e. | | s^2 |
Control	36.667
(2) FRA	636.250
Ash	764.917

f.

Source	df	SS	MS	F	P
(2) Treatment	2	4518	2259.2	4.714	0.04
Error	9	4314	479.3		

(1) g. $F_{0.10(1),2,9} = 3.01$

(1) k. At least one treatment mean cover is different.