PlSc 724 - HOMEWORK # 10

Given the following data set:

	Replicate		
Treatment	1	2	3
$a_0b_0c_0$	12	22	25
$a_0b_0c_1$	18	29	29
$a_0b_1c_0$	16	25	28
$a_0b_1c_1$	24	37	37
$a_1b_0c_0$	18	32	31
$a_1b_0c_1$	27	41	39
$a_1b_1c_0$	23	32	35
$a_1b_1c_1$	31	41	42
$a_2b_0c_0$	25	35	41
$a_2b_0c_1$	36	51	49
$a_2b_1c_0$	28	36	45
$a_2b_1c_1$	41	50	60

Complete the ANOVA's for the following situations. Assume that factors A, B, and C are fixed effects.

a) 3x2x2 factorial for an RCBD

b) RCBD with a split plot arrangement, whole plot is a factorial arrangement of factors A and B.

c) RCBD with a split-split plot arrangement.

d) RCBD with a split block arrangement, horizontal whole plot is a factorial arrangement of factors A and B, vertical whole plot is factor C.

e) For the previous four ANOVA's, compute LSD's for the sources of variation where the *F*-tests were significant.

f) Compute single d.f. orthogonal contrasts for all treatment combinations (there are 11).