HOMEWORK # 1 ANSWERS

(a) The utility function is as follows:

z_1	z_2	z_3	z_4	z_5	z_6	z_7	z_8	z_9	z_{10}	z_{11}	z_{12}	z_{13}	z_{14}	z_{15}	z_{16}	z_{17}	z_{18}
4	6	3	1	7	6	9	4	10	8	2	2	9	5	10	9	6	4

(b)

states → / acts ↓	s_1	s_2	s_3	s_4	s_5	s_6
a_1	4	6	3	1	7	6
a_2	9	4	10	8	2	2
a_3	9	5	10	9	6	4

(c) It is neither the case that a_1 dominates a_2 nor the case that a_2 dominates a_1.
It is neither the case that a_1 dominates a_3 nor the case that a_3 dominates a_1.
a_3 weakly dominates a_2, but the converse is not true.

(d) The lowest utility from a_1 is 1, the lowest utility from a_2 is 2 and the lowest utility from a_3 is 4. Thus the Maximin solution is a_3.

(e) The decision problem becomes:

states → / acts ↓	s_2	s_4	s_6
a_1	6	1	6
a_2	4	8	2

. The Maximin of this problem is a_2.