	u_0	u_1	u_2	u_3	u_4	u_5	u_6					u_0	u_1	u_2	u_3	u_4	u_5	u_6
i_0	5	5	2	0	1	?	?	\rightarrow	2.6		i_0	2.4	2.4	6	-2.6	-1.6	0	0
i_1	4	?	?	0	?	2	?	\rightarrow	2		i_1	2	0	0	-2	0	0	0
i_2	?	4	1	?	?	1	1	\rightarrow	1.75		i_2	0	2.25	-0.75	0	0	-0.75	-0.75
i_3	2	2	3	4	4	?	4	\rightarrow	3.17		i_3	-1.17	-1.17	-0.17	0.83	0.83	0	0.83
i_4	2	0	4	?	?	?	5	\rightarrow	2.75		i_4	-0.75	-2.75	1.25	0	0	0	2.25
	a) Original utility matrix ${f Y}$ and mean item ratings. b) Normalized utility matrix ${f \bar Y}$.																	
		i_0	i_1	i_2	i_3	i_4						u_0	u_1	u_2	u_3	u_4	u_5	u_6
	i_0	1	0.77	0.49	-0.89	-0.52					i_0	2.4	2.4	6	-2.6	-1.6	-0.29	-1.52
	i_1	0.77	1	0	-0.64	-0.14					i_1	2	2.4	-0.6	-2	-1.25	0	-2.25
	i_2	0.49	0	1	-0.55	-0.88					i_2	2.4	2.25	-0.75	-2.6	-1.20	-0.75	-0.75
	i_3	-0.89	-0.64	-0.55	1	0.68					i_3	-1.17	-1.17	-0.17	0.83	0.83	0.34	0.83
	i_4	-0.52	-0.14	-0.88	0.68	1					i_4	-0.75	-2.75	1.25	1.03	1.16	0.65	2.25
		c) I	tem	simi	larity	/ ma	trix	\mathbf{S} .			d	l) No	rma	lized	util	ity m	natri	$\mathbf{\bar{Y}}$.