(a) A_G =

	a	b	c	d	e
a	0	1	1	1	1
b	0	0	0	1	0
c	1	0	1	0	1
d	0	0	0	0	0
e	0	1	1	1	0

(b)
a : $deg^- = 1$, $deg^+ = 4$
b : $deg^- = 3$, $deg^+ = 2$
c : $deg^- = 3$, $deg^+ = 3$
d : $deg^- = 3$, $deg^+ = 0$
e : $deg^- = 2$, $deg^+ = 3$

(c) $A_{G'}$ =

	a	b	c	d	e
a	0	1	2	1	1
b	0	2	0	1	1
c	2	0	2	0	2
d	1	1	0	0	1
e	1	1	2	1	0

(d) I_G =

	e1	e2	e3	e4	e5	e6	e7	e8	e9	e10	e11	e12
a	1	0	1	1	0	0	0	0	1	1	0	0
b	1	2	0	0	0	1	1	0	0	0	0	0
c	0	0	1	1	2	0	0	0	0	0	0	0
d	0	0	0	0	0	0	1	1	0	1	0	1
e	0	0	0	0	0	1	0	1	1	0	1	1

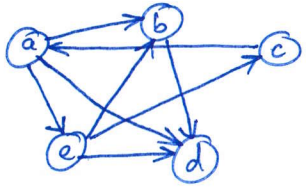
e1 = (a,b)
e2 = (b,b)
e3 = (a,c)
e4 = (c,a)
e5 = (c,c)
e6 = (b,e)
e7 = (b,d)
e8 = (e,d)
e9 = (a,e)
e10 = (a,d)
e11 = (c,e)
e12 = (e,c)

(e) $G_{siktis} = (\{a,b,c\}, \{(a,e),(e,c),(c,a)\})$

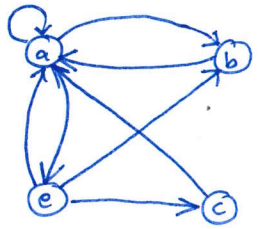
$G_{lengkap} = (\{a,e,c\}, \{(a,c),(e,c),(c,a)\})$

$a_{roda} = (\{a,b,e,d\}, \{(a,b),(a,d),(a,e),(e,b),(e,d),(b,a)\})$

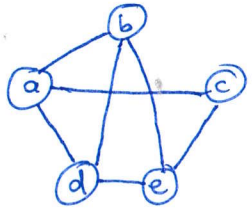
(f) F =



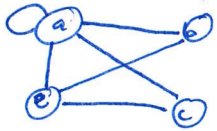
(g) F'' =



F' =



(h) f'' (undirected)



(h) tenhubung, karena b dan c tidak memiliki edge

(i) edge connectivity : 2 (karena setiap venteks memiliki minimal 2 edge)
vertex connectivity : 2 (menghilangkan a dan e)

(j) edge cut set = $\{(a,c),(e,c)\}$
vertex cut set = $\{a,e\}$

(k) tidak karena ada venteks berderajat ganjil

(l) ada → <e, c, e, d, b, a>