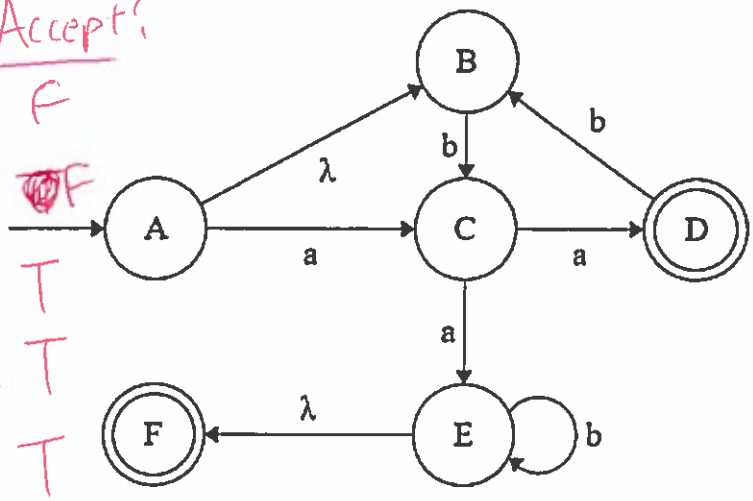
Name Key
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CSE431 – Quiz 1
2/3/15

1. (60 points) The following FSA is non-deterministic. Remove the non-determinism using subset construction. You do not need to redraw the FSA, creating the DFA as a table is sufficient.

State	a	b	Accept?
AB	C	C	F
C	DEF	—	F
DEF	—	BEF	T
BEF	—	CEF	T
CEF	DEF	EF	T
EF	—	EF	T

(A)(B)(C)(D)(E)(F)



2. (40 points) Construct a right linear grammar that defines the same language as the FSA from problem 1.

A → aB
| bB
B → aC
C → bD
| λ
D → bE
| λ

E → aC
| bF
| λ
F → bF
| λ