1.

a) 000S222

  00T22

b) True

c) G2

d) G1, G3

e) G4

2.

a) { R0, R1, R2 }

b) { a, b }

c) { R0 → aR1 | bR2 | ε,   R1 → aR2 | bR1,   R2 → aR0 | bR2 }

d) R0

3.

a) FALSE

b) TRUE

c) TRUE

d) FALSE, complement of a GFA whose language is Σ^* is the empty set.

e) FALSE