**COS 210**

**Worksheet 7**

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**Question 1**

G = (V, Σ, R, S)

Where

V = {S, A }

Σ = {0, 1}

S is the start symbol

R contains the following rules:

S → A1A1A1A

A → 0A | ε | 1A

**Question 2**

G = (V, Σ, R, S)

where

V = {S}

Σ = {a, b}

S is the start symbol

R contains the following rules:

S → bSb | bSa | aSb | aSa | b

**Question 3**

G = (V, Σ, R, S)

where

V = {S, Q, T, F, R , W}

Σ = {a, b, (, ), ∪, \*, ∅, ε}

S is the start symbol

R contains the following rules:

S → S ∪ S | SS | S ∗ | (S) | a | b | ∅ | e