Assignment 2

CS 458 Computer Security and Privacy

# Written Question 1: Security Policies – BIBA Integrity Model/Bell-La Padula Confidentiality Model (15 marks)

## Part a)

1. Read Only
2. None
3. None
4. Both
5. Write Only

## Part b)

1. File A has new integrity: (TA, {assignments})
2. Carol has same integrity: (Student, {assignments, marks})
3. File C has new integrity: (Professor, {assignments, marks})
4. File D has new integrity: (TA, {assignments})

Bob has new integrity: (TA, {assignments})

File E has new integrity: (TA, {assignments})

1. File F has new integrity: (Student, {marks})

Alice has new integrity: (TA, {assignments})

# Written Question 2: Password Cycling and Similarities (9 marks)

## Part a)

1. Short: only 7 digits
2. Only lower case letters

## Part b)

10 possibilities

## Part c)

Kittens0$000

## Part d)

1. If Eve knows the password after ii):

6 \* 10 ^ 3 = 6000 possibilities

1. If Eve does not know the password after ii):

10 \* 6 \* 10 ^ 3 = 60000 possibilities

# Written Question 3: Password Hashing (9 marks)

## Problem 1

Cheap to compute

## Problem 2

Password cannot be recovered

## Problem 3

## Alternatives

# Programming Question 1: SQL Injection (5 marks)

# Programming Question 2: Cross-site Scripting (9 marks)

# Programming Question 3: Cross-site Request Forgeries (16 marks)