

# Cyber Security Assignment 1 Quiz 1

## ICT 3156

### V Semester, IT

1.The act(s) that can cause security harm to the Availability property is/are \_\_\_\_\_.  
(1 Point)

- ☐ Interception
- ☒ **Interruption**
- ☐ Modification
- ☐ Fabrication

2.Which of the following statements is false? (1 Point)

- ☐ A person/process who is not authorized by the system accessing a data item affects confidentiality.
- ☒ **Specifying what a person with authentication can access is a sufficient aspect of a security policy.**
- ☐ Every password can be guessed albeit with a varying degree of difficulty.

3.A dataset has 9800 instances. A system can correctly flag 9500 instances. The total number of sought instances are 5000, of which 4745 instances are passed by the system as authentic. What is the specificity of such a system? (1 Point)

- ☐ 94.9%
- ☐ 98.85%
- ☒ **99.06%**
- ☐ 95.1%

Specificity =  $d/(b+d)$

**Given:**  $a+b+c+d = 9800$ ,  $a+d = 9500$ ,  $a+c = 5000$ ,  $a = 4745$

**$b+d = 4800$ ,  $d = 4755$**

$(4755/4800)*100 = 99.06\%$

4.Of 980 instances, a system correctly identifies 500 instances as authenticated, and 400 instances as not authenticated. The system incorrectly authenticates 50 instances. Which of the following statements is not true in this system? (1 Point)

- ☐ Sensitivity exceeds specificity in this system.
- ☒ **Specificity exceeds sensitivity in this system.**
- ☐ Sensitivity and specificity are statistically related.

Specificity =  $d/(b+d)$ , Sensitivity =  $a/(a+c)$

**Given:**  $a+b+c+d = 980$ ,  $a = 500$ ,  $d = 400$ ,  $b = 50$

**$b+d = 450$ ,  $a+c = 530$**

Sensitivity =  $500/530 = 94.33\%$ , Specificity =  $400/450 = 88.88\%$