



Strathmore
UNIVERSITY

FACULTY OF INFORMATION TECHNOLOGY
@iLabAfrica
MASTER IN INFORMATION SECURITY
END OF SEMESTER EXAMINATION
MST 8103: INTRODUCTION TO INFORMATION SECURITY

DATE: 26th February 2019

Time: 2.5 Hours

Instructions

1. This examination consists of **TEN** questions.
2. Each one has the same value (i.e., 1 mark).
3. **Minimum** grade constraint: **5 MARKS**.
4. You can answer them in different order.
5. No external materials (including books, slides, electronic resources, etc.) can be used during the test.

Questions

1. **Cite and briefly explain the 5 classical security requirements**
2. **What is a digital signature? Which are the security requirements that it provides? What kind of cryptography is needed?**
3. **How does steganography work? Which is the difference with cryptography?**
4. **What is a firewall and which is its main goal?**
5. **How can we measure the severity of a given security problem? Is there any scoring System?**

6. Explain what type of malware the following image belongs to:



7. What is social engineering? Cite two attacks that are based on this technique.

8. Provide a brief definition of Information Security Management Systems and point out two of their benefits to any organization

9. Cite two situations in which the European data protection regulation allows for the 'right to be forgotten'

10. Which are the limitations of Implantable Medical Devices in what comes to applying security mechanisms to protect them?