# Air University
## (Final Examination: Fall 2021)
### Department of Cyber Security

**Subject:** Introduction to Cyber Security
**Course Code:** CY-102
**Class:** BSCYS-1
**Section:** A & B

**Total Marks:** 80
**Date:** 13-01-2022
**Time:** 9:00-12:00
**Duration:** 3 Hours
**FM Name:** Ms. Aamna Tariq

**Students are advised to read and follow these instructions:**
1. Total Number of pages are 4.
2. Point out any discrepancy (torn pages, loose sheets etc.) to the invigilating staff.
3. **Section A** should be solved on question paper.
4. Time allowed for Section A is **30 minutes.**
5. **Section B** should be solved on answer Sheet & Extra Sheets if required.
6. Kindly attempt question in order and write question no and question properly.
7. Reading question carefully and attempting carefully is a part of exam.
8. Please return question paper.

| Q. No | Questions | Marks | CLO |
|---|---|---|---|
| | **Section A** | | |
| | **MCQS: Total Marks 20** | | |
| | **Over-writing is not allowed.** | | |
| Q1. | 1. Which of the following is an internet scam done by cyber-criminals where the user is convinced digitally to provide confidential information. <br> a) MiTM attack <br> **b) Phishing attack** ✓ <br> c) Website attack <br> d) DoS attack | 2 | CLO1, 2,3,4 |
| | 2. In which of the following, a person is constantly followed/chased by another person or group of several people? <br> a) Phishing <br> b) Bulling <br> **c) Stalking** ✓ <br> d) Identity theft | 2 | |

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| 3. Which of the following usually observe each activity on the internet of the victim, gather all information in the background, and send it to someone else?<br>a) Malware<br>**b) Spyware** ✓<br>c) Adware<br>d) All of the above | 2 |
| 4. It can be a software program or a hardware device that filters all data packets coming through the internet, a network, etc. it is known as the_____:<br>a) Antivirus<br>**b) Firewall** ✓<br>c) Cookies<br>d) Malware | 2 |
| 5. Read the following statement carefully and find out whether it is correct about the hacking or not?<br>**It can be possible that in some cases, hacking a computer or network can be legal.**<br>a) No, in any situation, hacking cannot be legal<br>**b) It may be possible that in some cases, it can be referred to as a legal task** ✓ | 2 |
| 6. To retain a competitive advantage and to meet basic business requirements organizations must:<br>a) Ensure the integrity of the information stored on their computer systems<br>b) Preserve the confidentiality of sensitive data<br>c) Ensure the continued availability of their information systems<br>d) Ensure conformity to laws, regulations and standards<br>**e) All of the above** ✓ | 2 |
| 7. Which of the following refers to the violation of the principle if a computer is no more accessible?<br>a) Access control<br>b) Confidentiality<br>c) Availability<br>**d) All of the above** ✗ | 2 |

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| 8. Which type of the following malware does not replicate or clone them self's through infection?<br>a) Rootkits<br>**(b) Trojans** ✓<br>c) Worms<br>d) Viruses | 2 | |
| 9. In order to ensure the security of the data/ information, we need to _____ the data.<br>**(a) Encrypt** ✓<br>b) Decrypt<br>c) Delete<br>d) None of the above | 2 | |
| 10. The key components of an information systems security policy include:<br>a) Management support and commitment<br>b) Access Authorization<br>c) Security Awareness<br>**(d) All of the above** ✓ | 2 | |

## Section B

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| | a) Humans are said to be the weakest link in any security system. Give an example of human failure that could lead to the compromise of encrypted data. | 10 | CLO1,2 |
| | b) Is a social engineering attack more likely to succeed in person, over the telephone, or through e-mail? Justify your answer. | 5 | CLO2 |
| Q2. | c) What is VPN? Explain your answer. | 5 | CLO |
| | d) One form of IDS starts operation by generating an alert for every action. Over time, the administrator adjusts the setting of the IDS so that common, benign activities do not generate alarms. What are the advantages and disadvantages of this design for an IDS? | 5 | CLO |
| | What is the NIST Cyber Security framework? Explain | | |

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| Q5. | What is privacy? How social media and privacy are linked together? Discuss in Detail. | 10 | CLO4 |
| Q6. | What is Digital Signatures? How digital signatures ensure the authenticity and integrity of a message? | 15 | CLO4 |

**************** End of Examination Paper ********************