LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – **COMPUTER SCIENCE**

FIFTH SEMESTER – **NOVEMBER 2023**

UCS 5601 – CYBER SECURITY

Date: 16-11-2023 Dept. No. Max. : 100 Marks

Time: 09:00 AM - 12:00 NOON

	SECTION A - K1 (CO1)	
	Answer ALL the Questions -	**(10 x 1 = 10)**
1.	**Answer the following)**	
a)	Define Cyberterrorism.	
b)	What is E-Mail Spoofing?	
c)	Using rail fence cipher encrypt the text "Good morning to all"	
d)	What are the differences between a virus and a worm?	
e)	Define Digital Forensics.	
2.	**Fill in the blanks**	
a)	_____refers to sending a large number of E-Mails to the victim to crash victim's E-Mail account.	
b)	_____is the output of encrypting the text "WELCOME" using caesar cipher (key=5)	
c)	The DES algorithm use the input plain text size 64 bits and the key size is_____bits	
d)	In _____ attack, an attacker may use your computer to attack another computer.	
e)	_____ crimes are damaging to the environment and, in turn, to all living beings on the planet.	
	SECTION A - K2 (CO1)	
	Answer ALL the Questions	**(10 x 1 = 10)**
3.	**Match the following**	
a)	Skull Trojan -	i) Network traffic
b)	Brute force -	ii) An automated program
c)	Botnet -	iii) Passive attack
d)	Google search -	iv) Mobile Virus
e)	Flood attack -	v) Try every possible key
4.	**True or False**	
a)	Password sniffing is a type of network attack in which an attacker intercepts data packets that include passwords.	
b)	Network scanning identify open/closed ports and services.	
c)	Vigenère Cipher is an example for monoalphabetic substitution cipher.	
d)	A SYN flood is a form of denial-of-service attack in which an attacker rapidly initiates a connection to a server without finalizing the connection.	
e)	Database forensics is a branch of digital forensics relating to recovery of digital evidence or data from a mobile device.	
	SECTION B - K3 (CO2)	
Answer any TWO of the following		**(2 x 10 = 20)**
5.	Construct the various categories of cyber criminals.	

6.	Develop any two transposition ciphers with examples.

7.	Make use of the mobility types and the attacks against mobile networks.
8.	Apply the 7 phases of incident response plan.
SECTION C – K4 (CO3)	
Answer any TWO of the following	**(2 x 10 = 20)**
9.	Explain any five types of cybercrime against organizations.
10.	Analyze the Play fair cipher and also Encrypt the text ”MOVE FORWARD” using the key “MONARCHY” .
11.	Explain the categories of malware based on action and infection methods.
12.	Categorize the various types of DoS attacks
SECTION D – K5 (CO4)	
Answer any ONE of the following	**(1 x 20 = 20)**
13.	Determine the steps followed by the cybercriminals for planning the attacks and explain active and passive attacks in detail.
14.	Evaluate the techniques to detect DoS attacks
SECTION E – K6 (CO5)	
Answer any ONE of the following	**(1 x 20 = 20)**
15.	Summarize the steps of Hill cipher and encrypt the plain text “WELCOMES” using key “HILL”.
16.	Discuss about cyber-crime investigation techniques

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