# LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034



## **B.C.A.** DEGREE EXAMINATION – **COMPUTER APPLICATIONS**

## FOURTH SEMESTER - APRIL 2023

## **UCA 4604 - CYBER SECURITY**

|                                | me: 09:00 AM - 12:00 NOON  |  |
|--------------------------------|--|--|
| 11110. 05.00 1111 12.00 1.001. |  |  |
| SECTION A - K1 (CO1)           |  |  |
|                                | Answer ALL the Questions $(10 \times 1 = 10)$  |  |
| 1.                             | Answer the following   |  |
| a)                             | Define Cyber Crime.  |  |
| b)                             | State any two good examples for setting up a password.                                 |  |
| c)                             | Define Brute force attack.   |  |
| d)                             | State any two goals of DoS attack.   |  |
| e)                             | Define Digital forensics.  |  |
| 2.                             | Multiple Choice Questions  |  |
| a)                             | Which of the following is a type of cyber-attack?                                      |  |
|                                | i) Phishing  |  |
|                                | ii) SQL Injections iii) Password Attack  |  |
|                                | iv) All of these   |  |
|                                | TV) All of these   |  |
| b)                             | Which of the following is not an example for Password managers?                        |  |
|                                | i) Clipperz  |  |
|                                | ii) Password Safe  |  |
|                                | iii) Gorilla   |  |
|                                | iv) KeePassX   |  |
| c)                             | Playfair cipher is an example of   |  |
|                                | i) Mono-alphabetic cipher  |  |
|                                | ii) Poly-alphabetic cipher   |  |
|                                | iii) Transposition cipher iv) None of these  |  |
|                                | IV) None of these  |  |
| d)                             | During a DoS attack, the regular traffic on the target will be either dawdling down or |  |
|                                | entirely interrupted.  |  |
|                                | i) network   |  |
|                                | ii) system   |  |
|                                | iii) website   |  |
|                                | iv) router   |  |
| e)                             | Which of the following applications are Digital Forensics?                             |  |
|                                | i) Financial fraud detection   |  |
|                                | ii) Child pornography  |  |
|                                | iii) Civil litigation  |  |
|                                | iv) All of these   |  |
| <b></b>                        | I .  |  |

|                      | SECTION A - K2 (CO1)   |
|----------------------|--|
|                      | Answer ALL the Questions (10 x 1 =   |
|                      | 10)  |
| 3.                   | Fill in the blanks   |
| a)                   | ARPANET stands for   |
| b)                   | is a network security device that monitors and filters incoming and outgoing network         |
|                      | traffic.   |
| c)                   | can reduce the chance of data leakage.   |
| d)                   | The intent of a is to overkill the targeted server's bandwidth and other resources of the    |
|                      | target website.  |
| e)                   | are used to authenticate electronic records.   |
| 4.                   | State True or False  |
| a)                   | IP addresses are classified into seven categories.   |
| b)                   | Passwords need to be kept encrypted to protect from such offline attacks.                    |
| c)                   | Hill cipher is harder to crack than Playfair cipher.   |
| d)                   | A DDoS with 20 to 40 Gbps is enough for totally shutting down the majority network           |
|                      | infrastructures.   |
| e)                   | The Zero Tolerance Policy is a non-strict way of enforcing rules in a forgiving environment. |
| SECTION B - K3 (CO2) |  |
|                      | Answer any TWO of the following $(2 \times 10 =$   |
|                      | 20)  |
| 5.                   | Write the reasons for commission of Cyber Crimes.  |
| 6.                   | Explain the characteristics of Password managers.  |
| 7.                   | Explain DES and its advantages.  |
| 8.                   | Write short notes on the investigation of Internet crime.                                    |
| SECTION C – K4 (CO3) |  |
|                      | Answer any TWO of the following $(2 \times 10 = 20)$   |
| 9.                   | Illustrate the techniques used in Cyber Security.  |
| 10.                  | Explain Steganography with any two real time examples.                                       |
| 11.                  | Explain Caesar cipher and encrypt the text "praise the lord" using key=5                     |
| 12.                  | Illustrate about six step incident response plan.  |
| SECTION D – K5 (CO4) |  |
| 10                   | Answer any ONE of the following $(1 \times 20 = 20)$   |
| 13.                  | Discuss the guidelines for setting a secure password.  |
| 14.                  | Compare the different encryption techniques with its benefits and limitations.               |
|                      | SECTION E – K6 (CO5)   |
| 1.5                  | Answer any ONE of the following $(1 \times 20 = 20)$   |
| 15.                  | Describe about the history and types of DoS attacks.   |
| 16.                  | Write about Contemporary crimes.   |

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