

Roll No. ....

## **BCA–E-502**

**B. C. A. (Fifth Semester)**

**EXAMINATION, 2022-23**

**CYBER SECURITY**

*Time : 2  $\frac{1}{2}$  Hours*

*Maximum Marks : 60*

**Note :** Attempt all questions.

### **Section—A**

1. Multiple choice type questions. 1 each
  - (a) In which of the following, a person is constantly followed/chased by another person or group of several peoples ? (CO5, BL-2)
    - (i) Phishing
    - (ii) Bulling
    - (iii) Stalking
    - (iv) Identity theft

**P. T. O.**

- (b) Choose one of the following can be considered as the class of computer threats ? (CO1, BL-1)
- (i) Dos Attack
  - (ii) Phishing
  - (iii) Soliciting
  - (iv) Both (i) and (iii)
- (c) Choose the following usually observe each activity on the internet of the victim, gather all information in the background, and send it to someone else : (CO5, BL-2)
- (i) Malware
  - (ii) Spyware
  - (iii) Adware
  - (iv) None of the above
- (d) Pick out the first computer virus : (CO4, BL-2)
- (i) Creeper
  - (ii) Sasser
  - (iii) Blaster
  - (iv) All of the above

(e) TCP/ IP stands for : (CO3, BL-2)

(i) Transmission contribution protocols/Internal protocol

(ii) Transaction control protocol/Internal protocol

(iii) Transmission control protocol/Internet protocol

(iv) Both (i) and (ii)

(f) Pick the one which is known as Malicious software : (CO2, BL-1)

(i) Malware

(ii) Malicious ware

(iii) Badware

(iv) Illegal ware

(g) Firewalls are used to protect\_\_\_\_\_.

(CO4, BL-3)

(i) Fire attacks

(ii) Virus attacks

(iii) Unauthorized access

(iv) Data driven attacks

- (h) Best way to protect your information when you are away from your computer ? (CO3, BL-2)
- (i) Turn the monitor off
  - (ii) Activate the screen saver
  - (iii) Lock the computer with a password
  - (iv) None of the above
- (i) In tunnel mode IPsec protects : (CO5, BL-2)
- (i) Entire IP packet
  - (ii) IP header
  - (iii) IP payload
  - (iv) None of the above
- (j) Viruses are : (CO4, BL-1)
- (i) Naturally occur
  - (ii) Machine made
  - (iii) Man-made
  - (iv) All of the above
- (k) Choose the correct Act that governs internet usage in India ? (CO2, BL-2)
- (i) The IT Gazette of India Act, 2004
  - (ii) The Information Technology Act, 2004
  - (iii) The Internet Consumption Act, 1998
  - (iv) None of the above

- (l) Performing hacking activities with the intent of gaining visibility for an unfair situation is :

(CO3, BL-4)

- (i) Cracking
- (ii) Analysis
- (iii) Hactivism
- (iv) Exploitation

2. Attempt any *four* of the following (Short answer type questions) : 3 each

- (a) Describe what is cyber security. How to secure your information ? (CO2, BL-3)
- (b) Discuss WWW policy in context of cyber security. (CO5, BL-4)
- (c) Explain the requirements of Digital Signature System. (CO4, BL-1)
- (d) Explain what are Cyber Threats. (CO5, BL-2)
- (e) Explain what is Virtual Private Network ?

(CO2, BL-5)

3. Attempt any *two* of the following : 6 each

- (a) Describe what is Intrusion Detection System (IDS). Explain its type in detail. (CO5, BL-6)

- (b) Explain what is CIA (Confidentiality, Integrity and Availability) triad and its significance in maintaining cyber security. (CO2, BL-5)
  - (c) Elaborate what is Electronic cash ? How does cash based transaction system differ from credit card based transactions ? (CO4, BL-1)
4. Attempt any *two* of the following : 6 each
- (a) Explain the following in detail : (CO4, BL-1)
    - (i) Private Key cryptosystem and Public key cryptosystems.
    - (ii) Firewall.
  - (b) Write short notes on the following : (CO5, BL-6)
    - (i) DOS
    - (ii) SQL injection
    - (iii) Steganography
  - (c) Write short notes on the following : (CO2, BL-2)
    - (i) Database Security
    - (ii) Email Security
    - (iii) Internet Security
5. Attempt any *two* of the following : 6 each
- (a) Explain about Firewalls and its types in details. Also describe about packet filtering. (CO3, BL-2)

- (b) Explain what do you mean by cryptography by using the diagrammatical approach of it ? Define the transformation method of it. (CO4, BL-3)
- (c) Discuss about Basic Security for SOAP Services and Identity Management and Web in detail.

(CO2, BL-1)