

(i) Printed Pages : 2

Roll No.

(ii) Questions : 9

Sub. Code :

1	3	4	5	4
---	---	---	---	---

Exam. Code :

5	0	4	4
---	---	---	---

**Bachelor of Computer Application (FYUP) 4th Semester
(2056)**

CYBER SECURITY

Paper : BCA-DSC-4 (Maj)-404

Time Allowed : Three Hours]

[Maximum Marks : 90

Note :— Attempt five questions in all, by selecting one question each from Units I, II, III, and IV. Question No. 9 is compulsory.

UNIT I

1. (a) Define Cyber Security and explain the various issues and challenges faced in protecting cyberspace today. 9
(b) Describe Internet infrastructure for data transfer and governance. 9
2. Explain the importance of Authentication, Access Control, and Cryptography in cyber security. 18

UNIT II

3. (a) Explain how attackers obtain user data through various web-based attacks. 9
(b) Explain the different types of email attacks used to target users. 9
4. (a) Describe the functionality of OpenVAS and Metasploit in vulnerability assessment. 9
(b) Discuss the use of Network Sniffers and Injection tools in network security. 9

13454/PG-19242

1

[Turn over

UNIT III

5. (a) Explain malware and ransom-ware attacks. 9
- (b) Discuss financial frauds and social engineering attacks. 9
6. (a) Describe the importance of reporting cybercrimes. Also, discuss the process of reporting cybercrimes in India. 9
- (b) Explain the typical steps followed by cyber criminals during a cybercrime. 9

UNIT IV

7. (a) Differentiate between Data Protection, Data Privacy, and Data Security. 9
- (b) Explain the key principles of data protection. 9
8. (a) Explain the role of firewall in network security. 9
- (b) Discuss the data privacy and security issues related to social media. 9

Compulsory Question

9. Write short answers for the following:
 - (a) What are DOS and DDOS attacks? 4
 - (b) What is packet filtering? 2
 - (c) Define vulnerability. 2
 - (d) What is World Wide Web? 2
 - (e) What is phishing? 2
 - (f) Define worm in cyber security. 2
 - (g) What is zero-day attack? 2
 - (h) What is steganography? 2