

Roll No.

CEGCS–03

Cyber Attacks and Counter Measures : User Perspective

Certificate of E-Governance and Cyber Security
(CEGCS–16)

First Semester, Examination, 2017

Time : 3 Hours

Max. Marks : 70

Note : This paper is of **seventy (70)** marks containing **three (03)** sections A, B and C. Attempt the questions contained in these sections according to the detailed instructions given therein.

Section–A

(Long Answer Type Questions)

Note : Section ‘A’ contains four (04) long answer type questions of fifteen (15) marks each. Learners are required to answer *two* (02) questions only.

1. Explain different types of cyber attacks in details.
2. What are the detective controls ? How do these help in ensuring the IT security ?
3. Explain RAD concept.
4. What do you understand by Public Key Cryptography ?
Explain the procedure for sending the data in secure manner using public key cryptography.

Section-B**(Short Answer Type Questions)**

Note : Section 'B' contains eight (08) short answer type questions of five (5) marks each. Learners are required to answer *six* (06) questions only.

1. What is Multifactor authentication ?
2. Explain the relation between threat and vulnerability.
3. What is the difference between simplex, half duplex and full duplex communication ?
4. What are the the master categories into which computer security in categorised ?
5. What are smart cards ? Explain how smart cards can contribute towards safe and secure electronic transactions.
6. What is Password Manager ? Give some examples of popular password managers.
7. Explain WEP, WPA and WPA2 ? Which mode is most preferred and why ?
8. What do you understand by IP address ? How does it help in data communication ?

Section-C**(Objective Type Questions)**

Note : Section 'C' contains ten (10) objective type questions of one (01) mark each. All the questions of this section are compulsory.

1. Hash functions are :
 - (a) Two-way cryptographic functions
 - (b) Example of PKI
 - (c) Example of symmetric key cryptography
 - (d) One-way cryptogrphic functions

2. In public key cryptographic, public key is used :
 - (a) By others the encrypt the data for key owner
 - (b) As hash algorithm
 - (c) For transmitting the data using own private key
 - (d) None of the above
3. OTP is used for :
 - (a) Two step authentication
 - (b) Only financial transaction
 - (c) Only gmail verification
 - (d) All of the above
4. File artefacts and meta-data can be used to identify :
 - (a) The origin of a particular piece of data
 - (b) To rebuild a database
 - (c) The reverse of a hash value
 - (d) All of the above
5. MAC filtering is the :
 - (a) Part of configuring IPv 4 address of device
 - (b) Part of configuring IPv 6 address of device
 - (c) Most secure way of configuring a wireless router
 - (d) All of the above
6. Project Athena at Massachusetts Institute of Technology gave birth to :
 - (a) TCP/IP
 - (b) SSL
 - (c) Kerberos
 - (d) Public key cryptography

7. A Computer network is defined as :
 - (a) All the computers in a LAN
 - (b) All the computers and peripherals in a LAN
 - (c) Collection of nodes which is used for data communication
 - (d) All of the above
8. A denial of service attack will :
 - (a) Only infect the data on a network
 - (b) Incapacitate the infrastructure, hence no service will be available
 - (c) Only corrupt the data on an IT infrastructure
 - (d) None of the above
9. A Ransomware is a malware which will render :
 - (a) The session hijacking
 - (b) The operating system but data can be used
 - (c) No harm to the system
 - (d) The complete data unusable by encrypting the drives/data
10. Digital certificates are the files used for proving the authenticity :
 - (a) of the receiver
 - (b) of the sender
 - (c) of both send and receiver
 - (d) none of the above