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Total pages : 03

Roll No.

CEGCS-04

Information System

Certificate of E-Governance and Cyber Security

(CEGCS-16/17)

Examination 2021 (Winter)

Time : 2 Hours

Max. Marks:100

Note : This paper is of hundred (100) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

Section-A

(Long Answer-type questions)

Note: Section 'A' contains Five (05) long-answer-type questions of Twenty Six (26) marks each. Learners are required to answer any two (02) questions only.

(2 x 26=52)

Q.1. Explain various functions of layers in TCP/IP reference model. Explain the difference between TCP and UDP.

Q.2 What is Cryptography? How AES is used for encryption/decryption? Discuss with example.

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- Q.3 What do you understand by footprinting and reconnaissance in respect of Penetration testing/Hacking? Enumerate and explain various phases involved in penetration testing.
- Q.4 Why E-mail compatibility function in PGP needed? Explain the operational description of PGP.
- Q.5 Explain the principles of public key cryptography and RSA algorithm in detail with an example.

Section-B

(Short Answer-type questions)

Note: Section 'B' contains Eight (08) short-answer-type questions of Twelve (12) marks each. Learners are required to answer any four (04) questions only.

(4 x 12=48)

- Q.1 What do you understand by the term scanning and enumeration?
- Q.2 Who are the major threats to IT Infrastructure ? How to mitigate them?
- Q.3 How will you perform Web Application Security?

- Q.4 What is Zone transfer? How this vulnerability can be misused by a hacker? What is the remedial action one must take to mitigate this?
- Q.5 What do you understand by 'Meet in the Middle attack'? Explain briefly.
- Q.6 What should be the best strategy for key distribution and management in an organisation?
- Q.7 Explain the authentication process on Microsoft platform?
- Q.8 What do you understand by VA/PT-Basics?
