



MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL

Paper Code : BCADS01H/GAM-503C Information Security

UPID : 500051

CS/BCA(A)/ODD/SEM-5/500051/2024-2025/1091

Time Allotted : 3 Hours

Full Marks : 70

The Figures in the margin indicate full marks.
Candidate are required to give their answers in their own words as far as practicable

Group-A (Very Short Answer Type Question)

1. Answer any ten of the following :

- (i) What do you understand by TCP/IP?
- (ii) Define the term 'risk', briefly.
- (iii) Explain the concept of IP spoofing.
- (iv) What are the fundamental components of device security?
- (v) What is the major difference between the Symmetric and Asymmetric Key Algorithm?
- (vi) What is a threat?
- (vii) What is virtualization?
- (viii) Mention the basic steps that can protect the webcam attached with the system.
- (ix) What is a gateway? What are the fundamental use of gateway?
- (x) What do you mean by Cyber Ethics? Explain briefly.
- (xi) What is this IP '127.0.0.1' refers to?
- (xii) Explain the term 'Authentication' with respect to computer users.

[1 x 10 = 10]

Group-B (Short Answer Type Question)

Answer any three of the following :

2. What is the difference between a gateway and a firewall?
3. Elaborately explain different types of Authorization with the help of appropriate examples.
4. Differentiate OSI Reference Model with TCP/IP Reference Model
5. Define the term residual risk. What are three ways to deal with residual risk?
6. Explain the process of Patch management in Cyber security. How often should we perform Patch management to make the device secure?

[5 x 3 = 15]

Group-C (Long Answer Type Question)

Answer any three of the following :

[15 x 3 = 45]

7. (a) What are the different types of VPN. [5]
(b) What is a secure web server? Explain briefly. [4]
(c) What are the commonly used cloud computing services. Explain any two in brief. [6]
8. (a) How to Prevent against SQL Injection Attacks? Explain briefly. [6]
(b) What is HTML injection? Explain Briefly. [4]
(c) How to secure an OS? Explain Briefly. [5]
9. (a) What is an IPv4 address? [3]
(b) What are the different classes of IPv4? [4]
(c) What are the HTTP and the HTTPS protocol? [6]
(d) What is the SMTP protocol? [2]
10. (a) What do cybersecurity laws cover? Explain Briefly. [3]
(b) What are the importance of Cyber Law ? Explain Briefly. [5]
(c) What are the Areas covered by Cyber Law? Explain Briefly. [7]
11. (a) Explain the term, 'Software-as-a-service (SaaS)'. [7]
(b) What are the major difference between grid computing and cluster computing? [8]

*** END OF PAPER ***