

Total No. of Questions : 8]

SEAT No. :

PD4261

[Total No. of Pages : 2

[6403]-57

T.E. (AI & DS)

CYBER SECURITY

(2019 Pattern) (Semester - VI) (317530)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Answer Q.1 or Q.2, Q.3 or Q.4, Q5 or Q6, Q7 or Q8.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.

- Q1)** a) Write short note on X.509. [5]
b) What is Digital Signature Standard? Explain the DSS approach. [6]
c) Perform encryption and decryption using RSA algorithm for $p = 11$, $q = 3$, $e = 3$ and $M = 7$. [6]

OR

- Q2)** a) Identify and explain the various methods of authentication. [5]
b) Explain the operations of Kerberos. [6]
c) In a Diffie-Hellman Key Exchange, Alice and Bob have chosen prime value $q = 17$ and primitive root = 5. If Alice's secret key is 4 and Bob's secret key is 6, what is the secret key they exchanged? [6]

- Q3)** a) What is VPN? Explain types of VPN. [6]
b) Explain IPsec also state the advantages of IPsec. [6]
c) Distinguish between PGP and S/MIME. [6]

OR

- Q4)** a) Explain ISAKMP protocol of IPsec. [6]
b) Explore Secure Socket Layer Handshake protocol in detail. [6]
c) Distinguish between IDS and IPS. [6]

P.T.O.

- Q5)** a) List and explain types of intrusion detection system (IDS) [6]
b) Enlist the various types of firewall. [5]
c) Explain : [6]
i) Dictionary Attack
ii) Social Engineering attack
iii) Brute Force attack

OR

- Q6)** a) What is Attribute-Based Access Control (ABAC) [5]
b) What is trusted system? Explain in brief. [6]
c) Differentiate packet filtering router and stateful Inspection firewall. [6]

- Q7)** a) List types of VoIP hacking and Explore any 3? Describe a few counter Measures to prevent remote connectivity and VoIP hacking. [8]
b) Who are cyber criminals? What are types of cybercrimes? [6]
c) Explain Personally Identifiable Information PII. [4]

OR

- Q8)** a) What is cyberstalking? Compare between cyberstalking and physical stalking. [8]
b) Explain the terms : [6]
i) Virus
ii) Phishing
iii) Spoofing
iv) Mobile hacking
v) Internet Pharming
vi) Cyber Forensic
c) Compare Security and Privacy. [4]

