P439

[6003]-543

T.E. (Artificial Intelligence and Data Science)
CYBER SECURITY
(2019 Pattern) (Semester-II) (317530)

Time : 2½ Hours]   *[Max. Marks : 70*

Instructions to the candidates:
1) *Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.*
2) *Neat diagrams must be drawn wherever necessary.*
3) *Draw neat figures wherever necessary.*
4) *Figures to the right side indicate full marks.*
5) *Use of Calculator is allowed.*
6) *Assume suitable data if necessary.*

Q1) a) Describe the Deffie-Hellman Key Exchange in detail. **[6]**

b) Identify and explain the authentication methods. **[6]**

c) Distinguish between Kerberos and X.509 authentication service. **[5]**

OR

Q2) a) What is Digital Signature Standard? Explain the DSS approach. **[6]**

b) Explain the RSA algorithm in detail with the help of diagram. **[6]**

c) Explain Message Digest algorithm in detail. **[5]**

Q3) a) Explore Secure Socket Layer Handshake protocol in detail. **[6]**

b) What is VPN? Explain types of VPN. **[6]**

c) Describe IPSec Protocol with its components and Security Services. **[6]**

OR

Q4) a) Distinguish between PGP and S/MIME. **[6]**

b) Explain ISAKMP protocol of IPSec. **[6]**

c) Identify Threats to web Security and figure out how any of two among listed are countered by particular feature of SSL. **[6]**

P.T.O.

Q5) a) Differentiate packet filtering router and stateful Inspection firewall. **[6]**

b) What is trusted system? Explain in brief. **[6]**

c) List limitations of Firewall. **[5]**

OR

Q6) a) Illustrate Screened subnet firewall Architecture. **[6]**

b) List and Explain types of intrusion detection system (IDS) **[6]**

c) Identify and explore any two-password management practice. **[5]**

Q7) a) Identify and explore the different types of Cyber stalker attacks. **[6]**

b) Illustrate life cycle of cyber forensics? **[6]**

c) List VoIP hacking types and explore any 3? What are the counter measures for it. **[6]**

OR

Q8) a) Who are cyber criminals? What are types of cyber crimes. **[6]**

b) What is Botnet? How to protect from botnet? **[6]**

c) Explain the terms: **[6]**

    i) Virus

    ii) Phishing

    iii) Spoofing

    iv) Phone phishing

    v) Internet pharming

    vi) Cyber Forensic

❖ ❖ ❖