

Total No. of Questions : 8]

SEAT No. :

**P439**

[Total No. of Pages : 2

**[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 Diffie-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

