

Total No. of Questions : 8]

SEAT No. :

PB3865

[Total No. of Pages : 2

[6262]-129

T.E. (Information Technology Engineering)
COMPUTER NETWORKS AND SECURITY
(2019 Pattern) (Semester - II) (314451)

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) Figures to the right side indicate full marks.
- 4) Assume Suitable data if necessary.

Q1) a) Explain the connection establishment and data transfer phase in the following routing protocols with suitable diagram. **[9]**

- i) AODV
- ii) DSDV

b) Explain with diagram Layered Architecture for Sensor Network. **[9]**

OR

Q2) a) Differentiate between infrastructure network and infrastructure less network. **[6]**

- b)** What are hidden station and exposed station problem in WLAN. **[6]**
- c)** Explain Distributed Denial of Service attacks. **[6]**

Q3) a) What is network attack? Write short note on following with suitable example? **[8]**

- i) Active attack
- ii) Passive attack

b) What is Cipher Feedback Mode (CFM)? Explain the process of CFM with suitable diagram. **[9]**

OR

P.T.O.

- Q4)** a) What is Electronic Code Book (ECB)? Explain the process of ECB with suitable diagram. [5]
- b) Describe the following network security threats [6]
- i) Unauthorized access
 - ii) Distributed Denial of Service (DDoS) attacks
- c) Differentiate between Active attack and Passive attack [6]

- Q5)** a) Define and list various computer network security mechanisms Also write short notes on the following terms [9]
- i) Encryption
 - ii) Decryption
- b) Define and explain digital signature. What are the applications of digital signature. [9]

OR

- Q6)** a) Define the following mathematical preliminaries and also explain the following in brief [9]
- i) Prime numbers
 - ii) Group
- b) What is Cryptography? also explain the following terms [9]
- i) Public key encryption
 - ii) Hash function

- Q7)** a) What is Cyber terrorism? What is an example of cyber terrorism? [8]
- b) Define Crime and Cybercrime. State Cybercrimes classification. [9]

OR

- Q8)** a) What Is Cyberstalking explain with an example. [8]
- b) Explain the term Phishing & SQL Injection with a suitable example. [9]

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