SEAT No. :

PC1808

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

Time : 2½ Hours]   *[Max. Marks : 70*

Instructions to the candidates:

1) *Answer Q.1 or 2, Q.3 or 4, Q.5 or 6, Q.7 or 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 DSDV (Destination Sequenced Distance Vector) with connection establishment and data transfer phase in detail. **[9]**

b) Comment on Adhoc Network MAC Layer with Design Issues, Design Goal. **[9]**

OR

Q2) a) Briefly explain classification of routing protocol for AdHoc Wireless Networks. **[6]**

b) Explain with diagram Clustered Architecture of Sensor Network. **[6]**

c) Write a short note on MACAW. **[6]**

Q3) a) What is stream Cipher? Explain the encryption process using stream Cipher with suitable example. **[8]**

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

OR

Q4) a) Write comparison between symmetric and asymmetric key cryptography. **[5]**

b) Define Network Attack. Explain with suitable example what do you mean by Active attacks and Passive attacks? **[6]**

c) Describe the following network security threats. **[6]**

   i) Unauthorized access

   ii) Distributed denial of service

   iii) Man in the middle

P.T.O.

Q5) a) Explain PKIX Model. **[9]**

b) Explain Advanced Encryption Standard with diagram. **[9]**

OR

Q6) a) Explain following terms **[9]**

i) Hash Function

ii) Digital Signature

iii) Digital Certificate

b) Explain the working of DES algorithm with suitable example. **[9]**

Q7) a) Define Crime and Cybercrime? State Cybercrimes classification. **[8]**

b) What is the difference between Information security and cyber security? Explain the different layers of security? **[9]**

OR

Q8) a) Explain the concept of Software attacks & hardware attacks with example. **[8]**

b) Write a short note on: **[9]**

i) Malware

ii) Phishing

iii) Cyber Threat

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