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T.E. (Information Technology)
COMPUTER NETWORKS & SECURITY
(2019 Pattern) (Semester - VI) (314451)

Time : 2½ Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) *Answer Q1 or Q2, Q3 or Q4, Q5 or Q6 and Q7 or Q8.*

2) *Figures to the right indicate full marks.*

Q1) a) Explain DSR in details with route discovery & route maintenance. **[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 Network. **[6]**

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

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

Q3) a) What is stream ciper? 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) What is substitution cipher? Explain the mono alphabetic cipher and poly alphabetic cipher. **[5]**

   b) Define Network Attack. Explain with suitable example what do you mean by active attack & 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 private key management. **[9]**

b) Explain advanced encryption standard with diagram. **[9]**

OR

Q6) a) Explain following term : **[9]**

i) Hash function

ii) Digital signature

iii) Digital certificate

b) Explain PKIX Model. **[9]**

Q7) a) Define crime and cybercrime? State cybercrimes classification. **[8]**

b) Define the term cyber security & explain layers of security. **[9]**

OR

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

b) Write short notes on : **[9]**

i) Malware

ii) Phishing

iii) Cyber threat

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