Total No. of Questions : 8] **SEAT No. :**

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[6003]-349

T.E. (Computer Engineering) (Semester - I)

COMPUTER NETWORKS AND SECURITY

(310244) (2019 Pattern)

Time : 2½ Hours] ***[Max. Marks : 70***

Instructions to the candidates:

1) ***Neat diagrams must be drawn whenever necessary.***
2) ***Figures to the right side indicate full marks.***
3) ***Assume Suitable data if necessary.***
4) ***Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.***

Q1) a) Differentiate between Circuit Switching and Packet Switching. **[6]**

b) Give short note on RIP. **[6]**

c) 192.168.5.71 /26 for given address find out the **[6]**

i) subnet mask?

ii) what is first ip address for given series?

iii) what is last ip address for given series?

OR

Q2) a) Draw and explain Header format of IPV6. **[6]**

b) Give short note on BGP **[6]**

c) List and explain functions of Network Layer. **[6]**

Q3) a) What is socket? What are different types of socket? Explain socket functions used in connection less services with diagram. **[6]**

b) Explain TCP congestion control in transport layer? **[6]**

c) What is Quality of Service? Explain any two methods to improve QoS? **[6]**

OR

P.T.O.

Q4) a) Explain RTP protocol in detail. **[6]**

b) List and explain transport layer services. **[6]**

c) 06 32 00 0D 001C E2 17 using this UDP hexadecimal dump find out in decimal numbers **[6]**

i) Source port no.

ii) Destination port no.

iii) Total length of user datagram.

Q5) a) What is HTTP? Explain HTTP request and reply messages. **[9]**

b) Write short notes on SMTP and MIME. **[8]**

OR

Q6) a) What is DHCP? Explain DHCP working with client state diagram. **[9]**

b) Write short notes on POP3 and Webmail. **[8]**

Q7) a) Differentiate between Symmetric and Asymmetric Key Cryptography. **[6]**

b) Explain model for network security. **[6]**

c) Give short note on Security Policy and mechanisms. **[5]**

OR

Q8) a) Explain Types of Network Attacks. **[6]**

b) Explain IPSec in detail. **[6]**

c) Give short note on S/MIME. **[5]**