

Total No. of Questions : 8]

SEAT No. :

P-7540

[Total No. of Pages : 2

[6180]-48

**T.E. (Computer Engineering)**  
**COMPUTER NETWORKS AND SECURITY**  
**(2019 Pattern) (Semester - I) (310244)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) *Answer Q.1 or Q.2, Q.3 or Q.4, Q5 or Q6, Q7 or Q8.*
- 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)** Give short note on : **[6]**

- i) ARP
- ii) RARP

- b) Explain Distance vector routing. **[6]**
- c) Differentiate between Circuit Switching, Message Switching and Packet Switching. **[6]**

OR

**Q2) a)** Give short note on : **[6]**

- i) ICMP
- ii) IGMP

- b) Explain Link state routing. **[6]**
- c) 192.168.5.51 / 26 for given address find out the i. subnet mask?  
ii. what is first ip address for given series?, iii. what is last ip address  
for given series? **[6]**

**Q3) a)** Draw and explain TCP header format. **[6]**

- b) List and explain transport layer services. **[6]**
- c) e2 a7 00 0D 00 20 74 9e 0e ff 00 00 00 01 00 00 00 using this UDP  
hexadecimal dump find out in decimal numbers i. Source port no.,  
ii. Destination port no., iii. Total length of user datagram. **[6]**

**P.T.O.**

OR

- Q4)** a) Draw and explain UDP header format. [6]  
b) What is socket? What are different types of socket? Explain socket functions used in connection oriented services with diagram. [6]  
c) Explain SCTP protocol in detail. [6]

- Q5)** a) What is DNS? Explain DNS working. [9]  
b) Write short notes on FTP and TELNET. [8]

OR

- Q6)** a) What is SNMP? Explain SNMP working. [9]  
b) What is HTTP? Explain HTTP request and reply messages. [8]

- Q7)** a) Draw and explain ITU-T X.800 Security Architecture for OSI. [6]  
b) Give short note on HTTPS. [6]  
c) Give short note on IDS. [5]

OR

- Q8)** a) Differentiate between Symmetric and Asymmetric Key Cryptography. [6]  
b) Explain SSL in detail. [6]  
c) Give short note on Firewalls. [5]



Total No. of Questions : 8]

SEAT No. :

**PB-3780**

[Total No. of Pages : 2

**[6262]-38**

**T.E. (Computer Engineering)**  
**COMPUTER NETWORK AND SECURITY**  
**(2019 Pattern) (Semester - I) (310244)**

*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) Figures to the right side indicate full marks.
- 3) Assume suitable data, if necessary.
- 4) Neat diagrams must be drawn whenever necessary.

**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) Draw and explain TCP header format. [6]

b) List and explain transport layer services [6]

c) e2 a7 00 0D 00 20 74 9e 0e ff 00 00 00 01 00 00 00 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.

**P.T.O**

OR

- Q4)** a) Draw and explain UDP header format. [6]  
b) What is socket? What are different types of socket? Explain socket functions used in connection oriented services with diagram. [6]  
c) Explain SCTP protocol in detail. [6]

- 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) Draw and explain ITU-T X.800 Security Architecture for OSI. [6]  
b) Give short note on HTTPS. [6]  
c) Give short note on IDS. [5]

OR

- Q8)** a) Differentiate between Symmetric and Asymmetric Key Cryptography. [6]  
b) Explain SSL in detail. [6]  
c) Give short note on Firewalls. [5]

