

SHAMBHUNATH INSTITUTE OF ENGINEERING AND TECHNOLOGY

Subject Code: BCS-603
Course: B.Tech.

Subject: Computer Networks
SEMESTER: VIth

THIRD SESSIONAL EXAMINATION, EVEN SEMESTER, (2024-2025)

Branch: COMPUTER SCIENCE & ENGINEERING

Time – 2 Hr.

Maximum Marks – 45

NOTE: (Attempt All Sections)

Attempt any FIVE of the following.

QN	QUESTION	Marks	CO	BL
a.	Define routing. In what way it is different from switching?	2	CO3	L1
b.	Discuss Service type or Differentiated services in Datagrams.	2	CO3	L2
c.	Explain Connecting Devices with suitable diagram	2	CO3	L2
d.	What is the use of ARP protocol?	2	CO3	L1
e.	What is Source Quench in ICMP.	2	CO3	L1
f.	Explain the dynamic routing table and its fields.	2	CO3	L1

Attempt Any ONE of the following.

QN	QUESTION	Marks	CO	BL
a.	Write the different between IPv4 and IPv6.	5	CO3	L1
b.	Explain Classless Addressing with suitable example.	5	CO3	L2
c.	Explain fragmentation in Datagram	5	CO3	L2

3. Attempt Any FIVE of the following.

QN	QUESTION	Marks	CO	BL
a.	What is socket address	2	CO4	L2
b.	List out prime three functionality of transport layer	2	CO4	L2
c.	What are the TCP segment Control field (flag).	2	CO4	L2
d.	What is error control in transport layer	2	CO4	L1

e.	Write the different between TCP and UDP	2	CO4	L1
f.	What is difference between pushing data and urgent data	2	CO4	L1

4. Attempt Any ONE of the following.

QN	QUESTION	Marks	CO	BL
a.	Explain Congestion control mechanisms.	5	CO4	L3
b.	Explain four way Handshaking with a half close option.	5	CO4	L2
c.	Write Short note 1) Leaky Bucket Algorithm 2) Token Bucket Algorithm	5	CO4	L1

5. Attempt Any FIVE of the following.

QN	QUESTION	Marks	CO	BL
a.	What is Voice Over IP	2	CO5	L1
b.	What IMAP	2	CO5	L2
c.	Discuss SMTP	2	CO5	L2
d.	Define digital Signature	2	CO5	L1
e.	Write the type of data Compression	2	CO5	L1
f.	What is public key encryption	2	CO5	L1

Attempt Any ONE of the following.

QN	QUESTION	Marks	CO	BL
a.	Write the type of Cryptography Algorithm. explain it	5	CO5	L3
b.	Define SNMP Protocols and working scenario.	5	CO5	L2
c.	How does FTP work? Differentiate between passive and active FTP.	5	CO5	L1