BACHELOR OF TECHNOLOGY (CBCS) (2021-COURSE)
B. Tech. Sem - V Computer Science & Engineering : WINTER : 2024
SUBJECT: COMPUTER NETWORKS

Day : Tuesday
Date : 10/12/2024

W-25591-2024

Time : 02:30 PM-05:30 PM
Max. Marks : 60

N.B.

1) All questions are **COMPULSORY.**
2) Figures to the right indicate **FULL** marks.
3) Assume suitable data if necessary.

Q.1	Explain OSI reference model in detail with diagram.	**(10)**
	OR	
Q.1	Explain working of Hub, Switch, Bridge and Routers in detail with diagram.	**(10)**
Q.2	Explain in detail: **a)** Go back –N ARQ **b)** Selective Repeat ARQ.	**(10)**
	OR	
Q.2	Explain working of Hamming Code in detail. Generate hamming code for the message 1110. Suppose (7,4) Hamming Code is received at receiver side. Suppose 6^{th} bit is inverted during transmission. Show that this error is detected and corrected at the receiver's end.	**(10)**
Q.3	Compare IPV6 and IPV4. Draw and explain IPV6 header format.	**(10)**
	OR	
Q.3	Explain different Unicast Routing Protocols in detail with diagram.	**(10)**
Q.4	What is silly syndrome problem in detail? How it is avoided? Explain.	**(10)**
	OR	
Q.4	What is socket? What are the types of socket? Explain various socket primitives used in TCP client and server approach.	**(10)**
Q.5	Explain following concepts with diagram: **a)** HTTP **b)** SNMP	**(10)**
	OR	
Q.5	Explain TELNET and Email in detail with diagram.	**(10)**
Q.6	Explain different cryptographic techniques used in detail. Also differentiate symmetric and asymmetric encryption.	**(10)**
	OR	
Q.6	Explain in detail directory services and network management.	**(10)**

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