C.N - SYCS 31424 Seat No. Regular ①

DURATION: - 2½ hrs 84203424 MARKS:- 75

Note: - (1) All questions are compulsory.
(2) Figures to the right indicate full marks
(3) Answer to each question must being on a new page

Q.1)	**Attempt any 4 out of 6**		**20M**
a)	Describe simplex Mode, Half Duplex and Full Duplex Data communication flow	CO1-U	
b)	Describe the layers of TCP/IP model	CO1-R	
c)	Define attenuation, Distortion and Noise	CO1-R	
d)	Explain Analog to Analog conversion process	CO1-U	
e)	Describe multiplexing and demultiplexing process	CO1-U	
f)	Explain circuit switching and packet switching	CO1-R	
Q.2)	**Attempt any 4 out of 6**		**20M**
a)	Describe single bit error & Burst bit error in detail with example	CO2-U	
b)	Explain error correction using FEC and ARQ	CO2-U	
c)	Write the steps to compute CRC code. Calculate CRC for the frame 110101001 and the generator polynomial $= x^4 + x + 1$ and write the transmitted frame.	CO2-U	
d)	The original data: 110111,1111111,01010011,1000001,0000000,1001001,1110110.0010101,1101011. Locate it using simple parity check and Two-dimensional parity check	CO2-U	
e)	Explain the protocols in data link layer	CO2-R	
f)	Write a short note on the classes of IPv4 address	CO2-R	
Q.3)	**Attempt any 4 out of 6**		**20M**
a)	Explain HTTP	CO3-R	
b)	Describe open shortest path first	CO3-R	
c)	Explain FTP	CO3-R	
d)	Explain SSH	CO3-R	
e)	Describe domain name system	CO3-U	
f)	Explain FIFO queuing and priority queuing	CO3-R	
Q.4)	**Attempt any 5 out of 6**		**15M**
a)	Explain LAN, MAN, WAN in chart	CO1-U	
b)	Describe pulse code modulation	CO1-R	
c)	Define Radio waves, Microwaves, Infrared	CO1-R	
d)	Write the steps to compute CRC code. Calculate CRC for the frame 1010000 and the generator polynomial $= x^3 + 1$ and write the transmitted frame	CO2-U	
e)	Describe RIP	CO3-R	
f)	Explain WWW	CO3-R	

****