Third Semester MCA Degree Examination, Aug./Sept.2020 **Computer Networks**

Max. Marks:100

lin	ne: 3	Note: Answer any FIVE full questions.	11KS.100
neg :		Explain the functionality of OSI model with a net diagram.	(10 Marks)
	b.	List and explain the types of networks based on scale.	(10 Marks)
2	a.	Explain different types of transmission impairments.	(10 Marks)
	b.	Apply NRZ, NRZ-I and Manchester encoding for the bit pattern 10000101111.	(06 Marks)
	c.	Illustrate Shannon's capacity formula.	(04 Marks)
3	a.	With a suitable diagram, explain the coaxial cable and optical fiber.	(10 Marks)
	b.	What is digital modulation? Explain FDMA, TDMA and CDMA technique, in det	ail.
			(10 Marks)
4	a.	With a suitable scenarios explain stop and wait ARQ protocol.	(10 Marks)
	b.	With a suitable example explain parity bit check and checksum error-detection tec	hniques.
			(10 Marks)
		C's C's	
5	a.	With a neat frame format explain the functionality of Ethernet [802.3].	(10 Marks)
	b.	Explain distance vector routing algorithm with a suitable example.	(10 Marks)
(With a neat diagram explain IPV ₄ header.	(10 Marks)
6	a. b.	Explain the token-bucket algorithm in detail and compare with leaky-bucket algorithm.	
	٥.		(10 Marks)
7	_ ,	Develois TCD hander from format	(10 Marks)
7	a. b	Explain TCP header frame format. Explain the connection establishment and connection release using 3-way	handshake
	0.	protocol.	(10 Marks)
			(40.36 *)
8	a.	Explain E-mail system in detail.	(10 Marks)
	b.	Write a note on: (i) DNS CMRIT LIBRARY CMRIT LIBRARY CMRIT LIBRARY CMRIT LIBRARY	
		DANGALUNG -	

(ii) WWW

BANGALORI

(10 Marks)

Important Note: 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.

2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.