Printed	Page:- 04	Subject Code:- ACSBS0602					
		Roll. No:					
	NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA						
	(An Autonomous Institute Affiliated to AKTU, Lucknow)						
	В.Т	ech					
		MINATION (2023 - 2024)					
	•	outer Networks					
	B Hours	Max. Marks: 100					
	Instructions:						
		aper with the correct course, code, branch etc.					
	uestion paper comprises of three Sec s (MCQ's) & Subjective type questions.	ctions -A, B, & C. It consists of Multiple Choice					
	um marks for each question are indicate	ed on right -hand side of each auestion					
	ate your answers with neat sketches whe						
	e suitable data if necessary.						
	ably, write the answers in sequential ord	er.					
6. No sh	eet should be left blank. Any writt	en material after a blank sheet will not be					
	d/checked.						
	SECTIO	ON A 20					
1. Attem	pt all parts:-						
1-a.	The physical layer is concerned with	(CO1) 1					
	(a) bit-by-bit delivery						
	(b) process to process delivery						
	(c) application to application de	elivery					
	(d) port to port delivery						
1-b.	Which transmission media provide	es the highest transmission speed in a 1					
		g					
	network? (CO1)						
	network? (CO1)						
	network? (CO1) (a) coaxial cable						
	network? (CO1) (a) coaxial cable (b) optical fiber						
1-c.	network? (CO1) (a) coaxial cable (b) optical fiber (c) twisted pair cable (d) electrical cable	link by two or more devices is called 1					
1-c.	network? (CO1) (a) coaxial cable (b) optical fiber (c) twisted pair cable (d) electrical cable						
1-c.	network? (CO1) (a) coaxial cable (b) optical fiber (c) twisted pair cable (d) electrical cable The sharing of a medium and its						

	(b) Multiplexing	
	(c) Micropleixng	
	(d) Duplexing	
1-d.	Guard bands are used for(CO2)	1
	(a) WDM	
	(b) FDM	
	(c) TDM	
	(d) CDM	
1-e.	In the Protocol, the sender sends its frames one after another with no regard to the receiver.(CO3)	1
	(a) Simplest	
	(b) Selective-Repeat ARQ	
	(c) Stop-and-Wait	
	(d) Go-Back-N ARQ	
1-f.	The checksum is used for (CO3)	1
	(a) data recovery	
	(b) data transfer	
	(c) error detection	
	(d) error recovery	
1-g.	Transport layer aggregates data from different applications into a single	1
	stream before passing it to: (CO4)	
	(a) data link layer	
	(b) application layer	
	(c) physical layer	
	(d) network layer	
1-h.	Routing tables of a router keeps track of: (CO4)	1
	(a) MAC Address Assignments	
	(b) Port Assignments to network devices	
	(c) Distribute IP address to network devices	
	(d) Routes to use for forwarding data to its destination	
1-i.	Which is not an application layer protocol? (CO5)	1
	(a) HTTP	
	(b) SMTP	

	(C) FIP	
	(d) TCP	
1-j.	Application layer offers service.(CO5)	1
	(a) End to end	
	(b) Process to process	
	(c) Node to Node	
	(d) Host to host	
2. Atte	empt all parts:-	
2.a.	What is Router? (CO1)	2
2.b.	Five channels, each with a 100-kHz bandwidth, are to be multiplexed together. What is the minimum bandwidth of the link if there is a need for a guard band of 10 kHz between the channels to prevent interference? (CO2)	2
2.c.	What is the significance of redundant bit? (CO3)	2
2.d.	Define Masking? (CO4)	2
2.e.	Define HTTP. (CO5)	2
3. Ansv	SECTION B wer any <u>five</u> of the following:-	30
3-a.	What is the need for Layered Architecture? (CO1)	6
3-b.	Explain the need of IEEE standards and enlist some IEEE standards used in computer networks.(CO1)	6
3-c.	Define Go-back–N ARQ. (CO2)	6
3-d.	Explain the importance of asynchronous TDM.(CO2)	6
3.e.	Why we use multiple access protocols? (CO3)	6
3.g.	What are the function of application gateway in firewalls?(CO5)	6
3.f.	What is meant by Encapsulation and de capsulation?(CO4)	6
	SECTION C	50
4. Ansv	wer any <u>one</u> of the following:-	
4-a.	Explain all the types of network topology with its merits and demerits. (CO1)	10
4-b.	Why do we need networking? Explain the components of computer networks. (CO1)	10
5. Ansv	wer any <u>one</u> of the following:-	
5-a.	Explain the working of WDM. (CO2)	10
5-b.	Explain spread spectrum techniques. (CO2)	10

6. Answer any one of the following:-Explain any two data link protocols used for noisy channel with help of 6-a. 10 diagrams.(CO3) 6-b. Differentiate between FDMA, TDMA and CDMA channelization protocols. (CO3) 10 7. Answer any one of the following:-7-a. Explain the Process-to-Process delivery on transport layer protocol. (CO4) 10 Explain the window management for the transport layer. (CO4) 7-b. 10

8. Answer any one of the following:-

8-a.	Explain the architecture and services of e-mailing system. (CO5)	10
8-b.	Explain about Application layer and its services in detail? (CO5)	10

