



## **BRAINWARE UNIVERSITY**

Term End Examination 2023-2024 Programme - Dip.CSE-2022 Course Name – Computer Networks **Course Code - DCSE-PC405** (Semester IV)

Full Marks: 60	Time: 2:30 Hours
[The figure in the margin indicates full marks. Candidates are required to give their	answers in their
own words as far as practicable.]	

**Group-A** 1 x 15=15 (Multiple Choice Type Question) Choose the correct alternative from the following: (i) Identify which of the following are transport layer protocols used in networking. b) UDP and HTTP a) TCP and FTP d) HTTP and FTP c) TCP and UDP (ii) Predict which of the following allows LAN users to share computer programs and data? b) Network a) File server d) Print server c) Communication server (iii) Identify when a DNS server accepts and uses incorrect information from a host that has no authority giving that information, then it is called b) DNS hijacking a) DNS lookup d) DNS authorizing c) DNS spoofing (iv) Identify during datagram switching, the packets are placed in \_\_\_\_\_ to wait until the given transmission line becomes available. b) Queue a) Stack d) Routing table c) Hash (v) Select the correct option regarding computer networks. b) A collection of interconnected computers a) A device used to display information on a and devices that can communicate and computer screen share resources c) A type of software used to create d) The physical casing that protects a

documents and presentations computer's internal components (vi) Select from following that is not a function of network layer? a) congestion control b) error control c) routing d) inter-networking (vii) Indicate that when collection of various computers seems a single coherent system to its client, then it is called a) computer network

b) distributed system

	/::··	c) networking system		d) mail system	
	(VIII)	Select that a is a de	vice that forwar	ds packets between networks by	
		processing the routing information	on included in t	he packet.	
		a) Bridge		b) Firewall	
		c) Router		d) Hub	
	(ix)	•	k laver protoco		
	(ix) Select from following the network layer protocol used for assigning IP addresses dynamically?				
		a) ARP			
				b) DHCP	
	(س)	c) DNS		d) ICMP	
(x) On a simplex data link, choose from the following that is a possible error recovery					
		technique?			
		<ul><li>a) Backward error correction (BEC</li></ul>		b) The use of hamming codes	
		c) Automatic Repeat Request (AR	Q)	d) Downward error correction (DEC)	
(xi) Choose the maximum efficiency of pure aloha at G = 1/2?					
		a) 1.89		b) 17.99	
		c) 18.999		d) 18.4	
(	2	Choose from following the statem		•	
	,	used on communications link?			
				N Funny detection connet be used on si	mnley
		a) Cyclic Redundancy Check (CRC)		b) Error detection cannot be used on si	Inpiex
		can detect as well as correct err		links.	
		c) Hamming code can detect up to	3-DIT (	d) All of the these	
1.	:: <b>\</b>	errors.			
()	-	Select that Logical Address may be			
		a) MAC Address		o) IP Address	
		c) Physical Address		l) Network Address	
()	xiv)	Select the number of bits reserved	d for the networ	k portion in a Class B IPv4 address?	
	á	a) 8 bits	b	) 16 bits	
		c) 24 bits	d	) 32 bits	
(:	xv)	Select the IPv6 address type that is	s used for comm	nunication within the same subnet?	
		a) Unicast		) Multicast	
		c) Anycast		) Link-local	
	`	J Allycust	۵,	, Ellin 1992.	
			Group-l		
		(She	ort Answer Type		3 x 5=15
		(3110	on Answer Type	questions	2 X 2=T2
	rs"				
		ine framing and the reason for its			(3)
	3. Enumerate the differences between CSMA/CA and CSMA/CD.				(3)
	4. Illustrate Address Resolution Protocol (ARP)?				(3)
	5. Review the leaky bucket algorithm.				(3)
6.	6. Estimate the significance of DNS (Domain Name System) in internet communication.			(3)	
			OR		
	Sum	marize the role of FTP (File Transf	er Protocol) in d	ata exchange over networks	(3)
			Group-C		
		(Lon	g Answer Type	Questions)	x 6=30
7.	Co	mare well known norts and enha	meral ports		<b>/</b> E\
<ul><li>7. Compare well known ports and ephemeral ports.</li><li>8. Decide the way link-state routing protocol differ from a distance-vector routing protocol?</li></ul>				(5) (5)	
9. An organization is granted the block 130.56.0.0/16. The administrator wants to create 1024 (				(5) 1 (5)	
٠.		nets. Estimate the subnet mask ar			+ (5)
10					(E)
10. Explain the concept of Hamming Distance. consider four codewords as: c1=010, c2=011, c3=111, c4=101. Compute the Hamming Distance between the codewords and the				(5)	
		, Compute the Hallill	ווום הוצומוונה מהו	March the concanoins and file	

Minimum Hamming Distance.	(5)
11. Illustrate the advantages of optical fibre over twisted pair and coaxial cable.	(5)
12. Compare static NAT with dynamic NAT	(5)
OR	r=1
Evaluate the role of post office protocol.	(5)

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