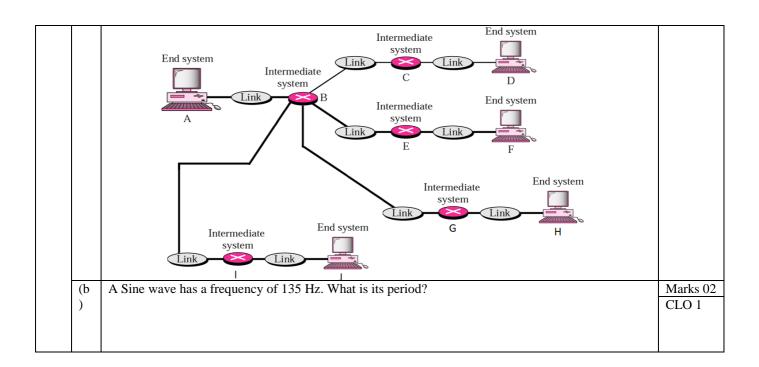
Department of Electrical Engineering Mid – Term Assignment Spring 2020 Date: 13/04/2020

			Course Details		
		e Title: actor:	Computer Communication Network		06 30
N	ame	•	Student Details IQBAL HUSSAIN	Student ID: 13	- 8690
Q1.	(a)	 Set of 3. is med ASK Data The The A sign A 56 Kbps In med Whe layer A 	topology has unidirectional movement of traffic. of rules that govern communication is called of a network is the frequency of failure and net easured. A. PSK, FSK and QAM are all examples of synchronization is a function related with layer changes bits into electromagnetic information to be communicated in a network is called the topology requires the maximum number of I/O por gnal that repeats itself is a signal. Sk modem can download at a rate of Kbps and st. esh topology, if there are five nodes then there will be n data is transmitted from device A to device B using interest and the component frequency is the collection of all the component frequency in the collection of all the component frequency is th	modulation. ayer. signals. ts. ad upload at a rate of links. ternet model, the header from A's	Marks 14 CLO 1
Q2.	(a)	 How A phexam Give capa How exam A local 	are frames different from packets? Explain with examples one line being analog can we send digital data on phone uples. some details about fault tolerance, which network bility? is logical addressing different from physical address uples. cal telephone company wants to connect the LANs in all case which network category would be used?	s. lines? Support your answer with topologies have fault tolerance sing? Support your answer with	Marks 10 CLO 1
Q3.	(a)		the following network, how many hops will it require for	data to reach from node A to node	Marks 04 CLO 1



	Page (1)	
Q1(a) 1	Ring topology has unidirectional movement of traffic.	
(2)	Sect of rules that govern Communication is called Protocol	
(3)	Reliability of a network 18 the frequency of failure and network recovery time after a failure is measured.	
(4)	ASK, PSK, FSK and BAM are all examples of Digital modulation.	
(5)	Data synchronization is a function - related with Physical layer.	
(d)	The information to be communicated	
(6)	The Physical layer changes - bits into electromagnetic signals.	
77,	The information to be communicated in a network is called the message	
(8)	Mesh topology requires the maximum number of I/O Ports.	

Name: Hussain Igbad Hussain

	Page (2)	
CH)	A signal that repeals itself is a Periodic Signal.	
(IC)	A 56K modern can download at a rate of 33.6 Kbps.	(
(1.1)	In mesh topology, if there circ five nodes then there will be 10 links.	
(02)	When data is transmitted from device A to device B using internet model, the header from A's layer 4 is read by B's Transport layer	
(13)	(ADC) Convertes	
(14)		
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Name	Vbad Hussain Id: 1369	U
	Page (3)	<i>p</i> 1
7:2 (a)	1 How are frames different	
	1 How are frames different from packets? Explain with	
	examample"	
ans:	Frame: The term frame originated	
	from networking specially	
	Communication over series lines	
4	where sender 'frames the data	
	which is a collection of bits	
	by addying special characters before and after the transmitted	
	data	
	A frame can be defined	
	as a data unit used in	
22.140	Data link layer. A frame is consist of markers which	
	dipicts the start and end	
	of the packet and addresses	
	for sending and recieving.	
	· ·	<u> </u>
	Example:	
Maria Maria	Frame is the Ethernet frame.	
4	frame is the Ethernet Frame.	A
	Packet:	
Total S	A Packet can be	
	any small block of data sent	
	the town lains break network	.0 (P
	the term derives from character oriented protocods that are	1
2 49	added special start-of-frame	
736	and end-of-frame characters	nelval

Name: 1 Hussain Id: 136	90
Inbad Page (4).	
- When transmitting packets.	
A packet is the protocol	4
data unit used in the	
network layer. As the primary	
tunction of the Network	1201
layer is to deliver a	
layer is to deliver a packet from one logical	
address (IP address) to emother	
A packed is a solitary	
unit or data interchangered	
bedween two devices on a	
network, the router uses IP	·
packed header to send	
packets through the neckwark from source	
to destinction.	
example:	
an enoamous file is	
broken into many packets	
and then transmitted across	
The nectisoris one at a time.	
the nedwork handware	
Conveys the packed to the	
Certain destination, where	
a Software regathers them into a single Rile again.	
into a single live again.	
	and the second

		l'aje (5)	
Q:2(a)	(2)	A phone line being analog	
		can we send digital data	
		on phone lines? support your	
		answer with examples?	1 1/4 1/4
Ansi		Computer transmit digital	4
		data expressed as electrical	
		impulses where as phones	
		transmit voice frequeinces	
	-	an analog signacista	
		transmit digital data. the sending modern must	
· · · · · · · · · · · · · · · · · · ·		first modulate ex encode	
		a computers oligitad signad	
		into an anadog signail that	
		can traved over the phone	
		line.	
4			
	(3)	Example:	
		Digital telephone sending High-speed data over speed phone lines new communication	
	1 3	The lines new communication	
		Systems are over digital.	_
		ancidos is stowly on its	,e
		Systems are over digital. analog is slowly on its way out therefore local	
- m		tedephone companies may ofter some all of these	
		after some all of these	
		digital services you can reconnected to your customers.	
		reconnected to your customers.	1.5
			-
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Name: . Inbal Hussein

		Page (6)	
O:2(a)	3	Give some details about fault tolevance, which network topologie	
		have fault tolerance Capability	2
Ans:		randt lolerance:	
		of a Consister and the	
		of a Computer system that gracefully hundles the failure of component hundware or Software. A system can be described as fault tolerent	
	177	of component hardware or	
		described as found tolored	
		16 Continious Co operate	All Control
~		Scitisfactorilly in the presence. Or one or more system	
		failure conclitions.	9.39
		Mesh Topology.	146
		Mesh Topology:- A mesh topology has multiple connections making	
		it the most facult tolerent	
		topology available. Every	
		Component of the network is connected directly to every other component.	
		every other component.	1
	-	0	**
100 mg/m	in the		

le.	Page (7)
Q2(a) (1	
	different from physical addressing
	support my answer with examples
Ans:	Logical address:
	Logical address:
	required for internet wwork
	communication with different
	address formet it is also
	Known as vivial address-
	Physical address:
1 6	
	the address of a node
	in a network or we
	Can call it link
	address is adequate for
	intranetwork having same
	address formal.
	F. 1.
	Example: if we travel across
	one state to another in
	pakistan, our CNIC card is
44	sufficient for our identity
	but it we cross the international
	border we need other identity
	proof like pussport.

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Name: Ighad Hussain

		Page (8).	
(0:2(4)	(5)	A local telephone company	
		A local telephone company wants to connect the LAIVS	. 41
		in all its offices throughout	
	- 1	a city. For this case which	
	, :	network category would be	÷ ,
	4.5	used?	
Ans:	1,5	we can connect the lans	
**	70.7	in all its offices throughout	
		a city through WAN Civicle	
		area neckwork) because WAN.	
		connects different smaller	
*)	1.	nections including local area	
		networks (LANG) and metro	
		this ensures that computers and	
	-	users in one location can	
		communicate with computers and	
		users in other locations. WAN	
		implementation can be done	
The state of the s		either with the help of	
		the public transmission system	
		or a private networlt.	
	14		
-	per le		
	-	* 4 620,77	

Nam	
	Uban Jussein
	100 Mass
	Page (9)
0:3	(a) Consider the following network.
	how many hops will it
	how many hops will it require for data to reach.
1)	From node A to nod J.
Mns.	They have 3 hops will
	required for data to
	reach from node A to
-	(1) From End-System A
	(1) From End-System A
	System.
	(2) From router B to
Manufacture and a confusion from control and of the	100(10)
	3, from router I do
	end System to router J.
(b)	A sine wave has a
	frequency A 135HZ. What
	is its Period?
	Soclution:
	JOB CLANTON
	Gruen data:
	P= 135H2
	Required:
	F = 135H2
	T= 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1
	T=0.0074sec Required Answer.
	Jurec Alngwer.