Date	:_/_/20_ Page 2
*********	1GB = 8x109 bits
	So
	Packet transmittin time = 8x109 bit
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6	= 8 x 10 sec
大人国	3 0 × 10 300
	Dady 1 1 2 2 2 5
	Packet transmission time = 8×105 sec
	- xx - xp - xp - xe-x
	Propegation delay:
	There is difference
	How propegation dalay and
	transmission time.
N.	-> transmission time is The
	time regime for a packet
	to be send completly.
	- propagation delay is the time taken by the first bit
	time taken by the first bit
	of a packet to be travel
9	from Sender to receiver During. This twin the receiver is unautyre
	That a mostage is bring
	that a message is being - transmitted.
7	(Tans vii) Hea
ļ ļ	-xx -xx -xx -xy
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	PITO

Super : The distance = 5 km Actority = 3×10 ⁸ m/s hundwith = 1000 Lps Required: The time there = 2 Sul As we know that Packet delivery time = Transmission time + propagation delay Propagation delay in Second can be calculated by dividing data in meter by the propagation Speed in m/s Speed in m/s Tobot X/o S Propagation delay = 16.7 x/o S Propagation delay = 16.7 x/o S Propagation delay = 16.7 y/o S		Question No: 02:
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Actorists = 3×10 m/s handwidth = 1000 Lps Required: Total time taker = 2 Packet de Invery time = 7 Packet delivery time = Transmine time + propagation delay Propagation delay in Second con Loe Calculated by dividing data in meter by it propagation Speed in m/s: Speed in m/s: - 1067x/0 S Propagation delay = 16.7 x10 S		murge Spe = 1 KB
Required: Total time taken = ? Packet de livery time = ? Propagation delay in Second con the local collected by dividing data in meter by it propagation speed in m/s. Speed in m/s. Propagation delay = 3×10° m/s Propagation delay = 16.7×10° S. Propagation delay = 16.7×10° S.	4	internec = 5km
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Required: Total time taken = ? Packet delivery time = ? Propagation delay in Second can be calculated by dividing data in me ter by ith propagation speed in m/s. So propagation delay = \$\frac{5}{3}\text{m}\$ Propagation delay = \$\frac{5}{16.7} \text{x} \text{lo S} Propagation delay = \$\frac{16.7}{16.5} \text{x} \text{lo S}	h	and in the = lose box
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Propagation delay = $\frac{5 \times 10^{3} \text{ m}}{3 \times 10^{8} \text{ m/s}}$ $= 1.67 \times 10^{-5} \text{ s}$ Propagation delay = $16.7 \times 10^{-5} \text{ s}$	Count	in m/s.
= 1.67x10 S Propagation delay = 16.7 x10 S	Speed	5 x 10 ³ m
= 1.67x10 S Propagation delay = 16.7 x10 S	Danage	A: delay = 3x/08 m/s
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	Transmujion time = 1000 b/s
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	= 8x103 b 1 Byte
	(0 ³ b/2.
1	transmission time = 8 sec
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	Packet delivery time = 8 see + 16.7 450
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	= (8+0.0000167) 511
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	{Packet delivery time = 8.6000 167 sec
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	D 03.
1	Question No: 03:
	Given: - musage size = 1024 bits bandwitth = 1000 M bit/sec Xand trip time = RTT = 1 sec
	= musage size = 1024 bits
	bandwith = 1000 M bit/sec
	round trip time = RTT = 1 see
	- B Balance a Bakanin
-11	Required:
-#	Pagints.
	Link Utilization = ?
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2.1. V1 1.2. A		Packet Size
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Tate:_	//20
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	The HFC (hybrid Fiber Coax) is
	17.1 - for cable internet alless.
	17. Inthe Coayla Cables 4.11
	(i) I I I I I I I I I I I I I I I I I I I
100	HEC every Packet Travel Travel
	to every home. In upstream channel
	of HFC every packet Sent 5y a home
	travel to heart end.
	Since Cable Interned Uses a
	Shared medition to transmit the
	Packet, The HFC fransmission
1	rate is Shared amount the
	Uzers.
	Collision is occurred when
	multiple Source sent the packets
	Simultinizorsly into the Shared
	medium. For example, in upstream
	channel of HFC multiple
	homes sent packets to heard
	end Smultinously. Thus collision are
	Possible in opstream chennel.
	But in downstream every packet
	is sent by only single same
	called bead end. Thus, Collisions
	are not possible in downstram
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	The second secon
10.1	12 2ND Assignment 4: