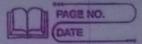
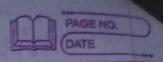
Assignment: OL}



Nome - Aman kumar Dingh EN - 200510101159 Batch - C Subject - DCN (Data Computer Network) 1. Define Network & Band width. Ars A Network consist of two or more computers that are dinked in order to Share resources, such as enchange files, or allow electronic communication? It is the data transfer capacity of a computer network in bib per second. It measures of how much information a network can transfer. Draw OSI reference Model & Emplain. There are 'n' number of user who use computer network and are located over the world. So to ensure national and woldwide data communication, systems must to be developed which are compatible to communicate with each other. ISO has developed a Standard. Iso stands for International organisation of Standaridization. This is called a model for open system interconnection (OSI)

and is commonly known as OSI model.



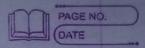
A STREET		
	It has seven layer in Ost model.:-	
	(i) Application Layer [7]	
	(i) Application Layer [6]	
	(ii) Presentation Layer (6)	The same
	Will Sevien Layer [5]	THE STATE
	(in Transport Layer 19)	
	(iv) Transport Layer [4] (v) Network Layer [3]	
	(vi) Data Link Layer 12	
	(vii) Physical Layer [1]	2013
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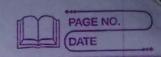
What is Framing? Explain character count method of framing. AM Framing is a node to node connection b/w two computers or devices consists of a wire in which data is transmitted as a stream This method is varely used and is generally elequired to count total number of character that are present is home. This is be done by using field in header character count method ensures data clinic clayer at the receiver or destination exposit total number of characters that follow, and about where the frame 4) Enplain CRC error + detection method with enample AM In CRC, a sequence of Medundant bits, called eyelic redundancy wheele bits, are appended to the end of data unit sol that the vesulting data unit becomes enauty divisible by a second, predeter minded binary number. At the destination, the incoming data unit is divided by the same number. If at this step there is no remainder, the data units is assumed to be connect and is there fore accepted.



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5.>	Enplain Checksum and Birmous Panty
it divin	check-error-detection method with enample.
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Carry The	Parity Check - Error Defection
. 1.)	Charles Davids Charles
and I	Blocks of data from the source are
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	hit generator form, where a parity of o-
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Kinsk	O is added if it contains even number of 1's
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	Sender bobennish over world d
	Sender 100011 1 so even panty Check
	10010 => 1001010 => odd panty check,
21014	got g its diese todayer roses nintret to
(0)	Two - Dimensional Ponty Check
1	Pan'ty check bits are calculated for each row,
14	Lation conjuntant in a simple party check bit.
10,	Parity check are also calculated for all column, &
	then both are sent along with the data.
	At the receiving and these are compound
	with the parity bits calculated on the
	Merieved data.
	La la minter de la contracta d
11	[10011001   11100010   00100100   1000 0100]
L .	
hame Cir	and the throughout remains the report to the second
	second and an mention turnerance function -



Check sum 1 has a sent of the For error detection by checkeum, data is divided into fixed Sized frames or Segment.

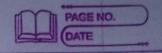
\* Sender: End. the Sender adds the Segments using

1's complement anithmetic to get the sum.

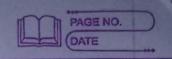
It is then complement the sum to get the

checksum and sends it along with the

data frames. Reviewer End - the receiver add the incoming Segment along with the checksum using 150 complement anithmetic to get the som and then complement it. If the viesults is zero. the received frames are applied, otherwise they are discarded. values roots of troots [ ] and parity chea Enplain error control with its 3 techniques. From control in the data link layer is a process of detecting and wetransmitting the data which has been lost or corrupted during the transmission of data. There are the 3 techniques: 3-Stop-and-wait ARU The housings A timeout counter is maintained by the cender, which is storted when a frame is sent. If the sender receives acknowledgement of the sent Rame, within time, the sender is confirmed about successful delivery of the Frame.



It then transmits the next frame in queue. IF the sender doesn't revieve the adenowledgement within time, the sender assumes that either the frame or its acknowledgment is Jost in transit. It then retainen's the frame. If the sender recieves a negative acknowledgment, the sender vietransmits the frame. obsilis of Grow-Back - Nos ARUS arrow A Arrestory. The gender sends multiple frames based upon the sending-window kize, without receiving the acknowledgment of the previous ones. \* The Reciever receive frames one by one . It keeps track of incoming frames sequence number and \* After the cender has sent all the frames in window, it cheeke up to what sequence no. it has recieved positive a denowledgment for all the Frames it sends nent set of Frames \* If sender recieves NACK or how not recieve any Ack for a particular frame, it vietransmits au the frames after which it does not recieve (iii) Selective Repeat ARQ Both the sender and the recieves have buffers called sending window and recaving window verpectively. I as notch a sociant



\* The genders sends multiple Frames based upon
the gending window size, without receiving
the acknowledgment of the previous ones,

\* The viewer also receives multiple frames
within the vieweiving window size. The viewer
keeps track of insoming frames sequence
number, buffers the frames in memory. It
send acknowledgment for all succenfully
viewed frames and sends Negetive acknowledge
ment for only frames which are missing.

\* The gender in this case, sends only packet for
which negetive acknowledgment is received.

Enplain Sliding window protocol, with an enomple

AW

The Sliding window is an technique for sending multiple frames at a time. It control the double frames at a time. It devices where vieliable and gradual delivery of data frames is needed. It is also used in TCP. In this technique, each frame has cent from the sequence number. The sequence number are also extred used to finds the missing data in the vierciver end. The purpose of the sliding window technique is to avoid duplicate data, so it uses the sequence number.