

SHRI VAISHNAV INSTITUTE OF INFORMATION TECHNOLOGY  
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING  
MID SEM EXAMINATION - I, SESSION 2019-20

Vision of the Department  
“To be renowned for excellence in Computer Science & Engineering.”

Mission of the Department

“To impart quality education, meeting the latest industry requirements, futuristic research & development in Computer Science & Engineering.

MID SEM TEST-I

CLASS: - BTECH CMC – IBM (SEC – E) YEAR : II SEM: IV  
SUBJECT NAME: Computer Networks (BTIT – 502 )

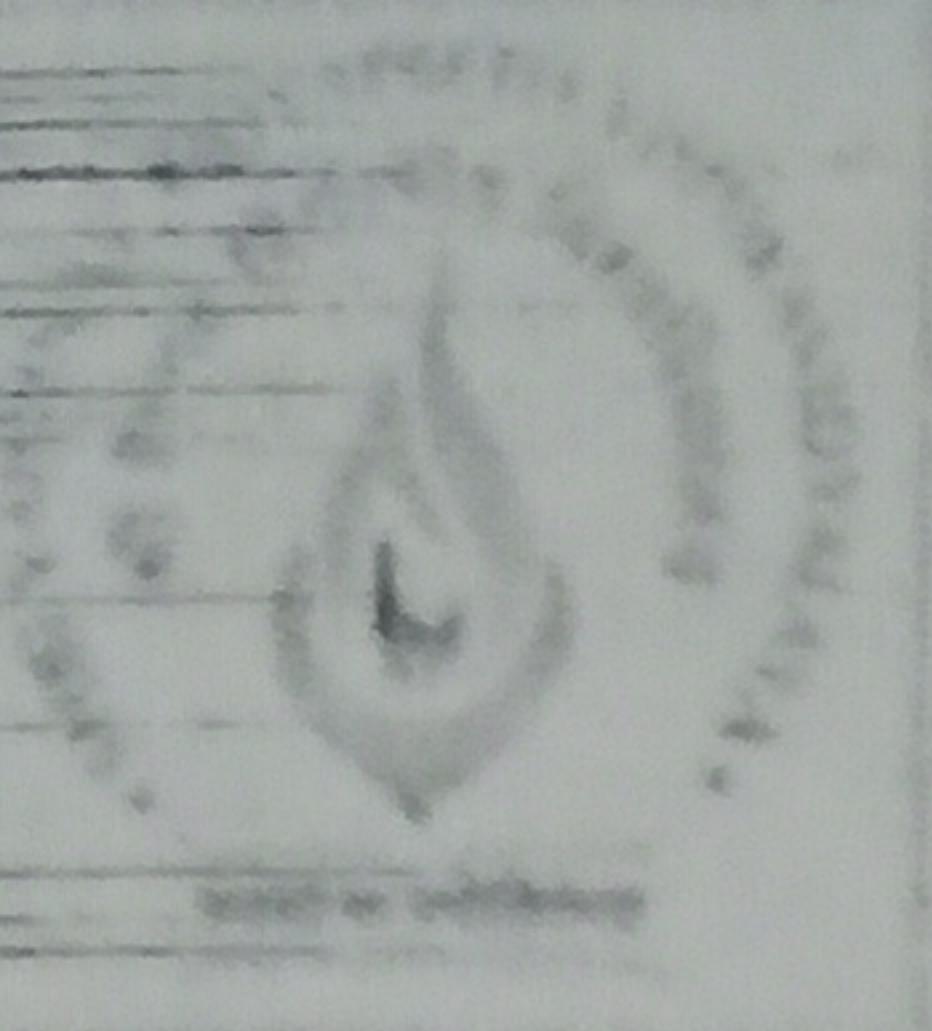
TIME- 01 hour  
Max. Mark : 20

NOTE :- Attempt all questions . Assume data if required.

Q. No.	Question	Max Marks
Q.1	<p>Explain the reason of using layered protocol ?</p> <p>Or</p> <p>Differentiate between OSI &amp; TCP/IP model .</p>	4
Q.2	<p>A 100 km long cable runs at T1 data rate , the propagation speed in cable is 20 msec . Calculate the number of bits that fits in the cable ?</p> <p>Or</p> <p>Describe AR techniques .</p>	4
Q.3	<p>Describe the working of a selective repeat protocol.</p> <p>Or</p> <p>Explain HDLC frame format .</p>	4

COURSE OUTCOME:

1. Understanding the fundamental concepts of computer networking.
2. Creating students interest in the basic taxonomy and terminology of the computer networking area.
3. Applying advanced networking concepts for student knowledge.
4. Creating the student for entry Advanced courses in computer networking.



SHRI VAISHNAV VIDHYAPEETH VISHWAVIDHYALAYA  
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Q.4

A channel has bit rate of 4 kbps and a propagation delay of 20 m sec , for what ranges of frames size does stop and wait give an efficiency of atleast 50% ?

4

Or

Given an error free 64 kbps satellite channel which is used to send 512 bytes data frames in one direction with very short acknowledgement coming back the other way .what will be the maximum throughput for window size of 1 , 7, 15 and 127 ?

Q.5

what is a bit stuffing ?if the bit string 0111101111101111110 is subjected to bit stuffing .what is the output string ?

4

Or

A channel has a bit rate of 4 kbps and a propagation delay of 20msec for what range of frame size does stop and wait protocol give an efficiency of atleast 60 percent.

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