C 55 120

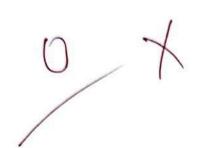
Chief ?

FAIT 2012.2

Foral Marks 15

Name Folim Conhan

 [CO2] Suppose, XYZ. Telecom company has a bandwidth of 4.5 kHz (0.3 to 4.8 kHz) assigned for voice calls. If the signal-to-noise ratio is 4025. What is the theoretical highest bit rate of the channel? How many levels are required to send the signal? [5]



[CO2] Write the difference between bandwidth and throughput. If the distance between the sender and receiver is higher then the transmission delay becomes higher as well. Yes

The difference between bandwidth and trough-

Yes, if the dastance between the sender and receiver is higher then the transmission delay becomes higher a well Because if we increase the distance the transmission delay will increase And if we decrease the distance between sended and neciver the transmission delay will be reduced. 3. [CO2] Suppose an end device A wants to send a frame containing a black and white image to another end device B. There are a total of 4 routers(R1,R2,R1,R4) in between them. The image being sent is a 1080*1920-pixel image. Every pixel is represented with 1 bit. The processing time(p) of each router in given below:

The image is being sent through a link of bandwidth 7 MBps and device B is 8500 Km away from device A. The signal passes through the link at a speed of 2.5x10°8m/s. Considering there is no queuing time, calculate the total delay for this transmission. [5]



4. [CO2] A non-periodic composite signal contains frequencies from 5 to 40 KHz. The peak amplitude is 10 V for the lowest and the highest signals and is 30 V for the 20-KHz signal. Assuming that the amplitudes change gradually from the minimum to the maximum and then maximum to the minimum, draw the frequency spectrum. [3]

