1996 Paper 9 Question 2

Digital Communication II

CD quality (16 bits per sample, stereo, 22 KHz analog bandwidth) audio is to be sent over an ATM network. Assuming that cells are filled with samples what cell rate is required to carry this traffic?   [4 marks]

What is the approximate packetization delay?   [4 marks]

What is the effect of an undetected cell loss?   [4 marks]

Design an adaptation layer to detect cell loss. What is the effect to the application of detected cell loss?   [8 marks]