## ITS323 - Quiz 3

Name:	_ ID:	Marks:	(10)
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## Question 1 [3 marks]

The path between SIIT Bangkadi and SIIT Rangsit is measured to have a power loss of 110dB. Both transmit and receive antenna's are identical, with a gain of 20dBi. Using a transmit power of 12dBm, what is the maximum receive power threshold for successful reception? Show your calculations.

## Question 2 [3 marks]

You are making a voice call via your computer (e.g. using Skype or similar software). The software, which uses a PCM encoder with 64 code numbers (or levels), generates data at a rate of 24kb/s.

(a) What is the sampling period used by the encoder? [3 marks]

## Question 3 [4 marks]

The following signal was generated using frequency shift keying. The signalling rate is 50 signal elements per second. The first four bits of data are 1001.

