

CARLETON UNIVERSITY

Department of Systems and Computer Engineering

SYSC 5608 Wireless Communications Systems Engineering

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QUIZ 1

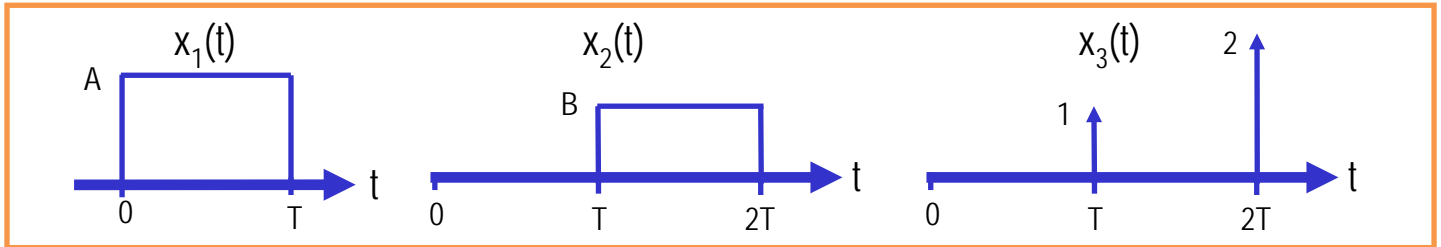
12 January 2016

Name:

Student #:

E-mail:

Q1. Convolution: $y(t) = x_1(t) * x_2(t)$. Sketch $y(t)$. $z(t) = x_2(t) * x_3(t)$. Sketch $z(t)$.



Q2. Sketch the PDF (probability density function) and CDF (cumulative distribution function) curves for a Gaussian random variable.

Q3 In a statistical experiment, the five possible outcomes for the random variable X are as follows: $\{1, 4, -3, -2, 5\}$. All the outcomes are equally-likely with probability $1/5$. Find the mean and variance of X .