

Signals and Systems (EE2008)

Date: February 25th, 2025

Course Instructor(s)

Dr. S.M. Sajid, Khalid Ijaz

Sessional-I Exam

Total Time (Hrs.): 1

Total Marks: 30

Total Questions: 3

Roll No

Section

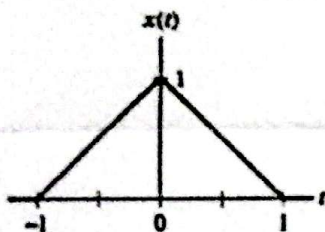
Student Signature

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Attempt all the questions.

CLO 1: Express different types of signals and systems.

Q1: Express the types of operations involved in the given signal $x(t)$ for the following transformations. Also, sketch the resulting signals derived from $x(t)$. [2.5+2.5+2.5+2.5 marks]



- (a) $x(3t)$
- (b) $x(3t+2)$
- (c) $x(-2t-1)$
- (d) $x(2(t+2))$

CLO 2: Apply mathematical and graphical convolution techniques to analyze continuous time and discrete time systems.

Q2: Apply mathematical convolutional technique to compute the convolution of $e^{\lambda t}u(t)$ with $u(t)$. [10 marks]

CLO 2: Apply mathematical and graphical convolution techniques to analyze continuous time and discrete time systems.

Q3: Consider the following two signals $x_1(t)$ and $x_2(t)$ as shown below. Apply graphical convolutional technique to compute the convolution of these two signals. [10 marks]