

North South University
Mat-350, Sec- 7, 8 & 16, Fall-2021
MakeUp Quiz, Total Marks-15, Time-15 mins

Name: _____ Id# _____ Date# 05/01/2022

Q1. Define Fourier Integral. Find the Fourier cosine and sine integral representation of the function

$$f(x) = \begin{cases} x & \text{if } 0 < x < 1 \\ 0, & \text{if } x > 1 \end{cases} \quad .$$

Sketch $f(x)$ and its periodic extensions. Show the answer in details.

(Where $k \neq 0$ is the 4th digit of your student Id# . If $k = 0$ then choose $k = 1$.)