National University

of Computer & Emerging Sciences Peshawar Campus

Program: BS (CS)
Semester: Spring-2021
Course: MT205-Probability & Statistics

Examination: Assignment # 05
Total Marks: 10, Weightage: **2.5**
Date of Submission: 18 / 06 / 2021

Problem

The time it takes to repair a personal computer is a random variable whose density, in hours, is given by

$$f(x) = \begin{cases} \frac{1}{2} & 0 < x < 2 \\ 0 & \text{otherwise} \end{cases}$$

The cost of the repair depends on the time it takes and is equal to $4 + 3\sqrt{x}$ when the time is x. Compute the expected cost to repair a personal computer.

The End