



National University

of Computer & Emerging Sciences Peshawar Campus



Name: _____

Roll No: _____

Program: BS (CS)

Semester: Spring – 2021

Time Allowed: 1: 20 (hour: min)

Course: Parallel & Distributed Computing

Examination: Mid-Online

Total Marks: 60 Weightage: 30

Date:

Instructor: Muhammad Amin

NOTE: Attempt all questions. *All questions carry equal marks*

Q1. You want to choose a way to provide mutual exclusion for the following scenario: You have 2 very high quality, fast computers both connected to the same Ethernet switch. Requests are sent to *both* computers, and only one should act upon the request. When the request arrives, it should be assigned to one or the other computer, which then processes it. Exactly one computer should handle each request.

What mutual exclusion protocol would you use? Justify your answer in terms of its performance, implementation complexity, and other factors you feel are important. A few sentences will do.