Fast**National University of Computer & Emerging Sciences, Karachi  
Fall-2022**

**FAST School of Computing  
Lab Midterm   
17th October 2022, 01:30 pm – 3:00 pm**

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| **Course Code: CL1002** | **Course Name: Programming Fundamentals Lab** | |
| **Instructor Name: Muhammad Nadeem Ghouri - PAPER A** | | |
| **Student Roll No:** | | **Section No: BS-RA C-1** |

Instructions:

* Return the question paper after exam
* Read each question completely before answering it. There are **3 questions and 2 pages**.
* In case of any ambiguity, you may make assumption. But your assumption should not contradict any statement in the question paper.
* You are **not allowed to write** anything on the question paper (except your ID).
* For Exam submission: Create a folder named **“Your student-id” i.e. (K22-0026).**

Paste the .c file for each question named as **Q1.c, Q2.c** and **Q3.c** in that folder.

**Time: 90 minutes Max Marks: 20 Points**

**Question No. 1**  **[30 mins, Points]**

Your PF lab Instructor makes an announcement in start of each lab about the lab task submission days after the announced days you are charged with some marks deduction. If your lab submission is late about 2 days or less than 4 days, then you are charged with 2 marks deduction. If your lab is late more than 5 days but less than 7 days, then your marks are deducted double and if your lab is late more than 7 days then your marks deduction is triple. Write a program which finds out the total marks deduction as per late submission policy.

**Question No. 2**  **[30 mins, Points]**

FAST NUCES Pizza Shop is providing discounts on the pizza due to the PROCOM-22 Event. If the price of Pizza is less than 1000 it will give a discount up to 5%. If the price of Pizza is 1000 to 2000, a 10% discount will be applied. If the price of Pizza is 2000 to 3000, a 20% discount will be applied. If it's more than 3000 then 35% discount will be applied to the price of Pizza. Print the actual amount, saved amount and the amount after discount. The Minimum amount eligible for a discount is 500.

**Question No. 3**  **[30 mins, 5 Points]**

FAST NUCES ACM society arranged Coders Cup in upcoming semester, let us consider in Coders Cup Competition you are given a task of writing code/program which can takes integer inputs from the user continuously and returns the square of the even numbers till the user enter integer within range (16,19). Your code should also provide the information that how many input integers are negative and how many are positive and how many are in range (200-500).

Hint (Zero is neither nor positive not negative).

**Question No. 4**  **[30 mins, 5 Points]**

Write a program for the following series using loop

[Hint: series starts from -9 and ends at 9 with alternate multiplication of +1 and -1.]

