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-B** | | |
| **Student Roll No:** | | **Section No: BSRA C-1** |

Instructions:

* Return the question paper and make sure to keep it inside your answer sheet.
* Read each question completely before answering it. There are **3 questions and 2 page**.
* 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, 05 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, 5 Points]**

FAST - DECS Dramatics and Extra Curricular Society arranged Welcome Party and Annual Picnic '22 and ask you design a software program for simulating the DECS ticket procedure for 2000 participants. You are asked to write a program for the mentioned task with following operations:

1. Purchase a ticket. The ticket price is PKR 1000 for sophomore’s students and 500 for junior’s students. You also offer 15% discounts who buy more than 5 tickets.

2. Displaying the number of seats available free and the total amount of sold tickets.

3. Termination of the program.

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

In fifth semester you are Appoint as a PF Teaching Assistant (TA) you are asked by your Professor to write a program which can help him in student’s assignments grading. He gives you the following requirements:

1. Reads the marks of 5 students in Assignment-01 Assignment-02 and Assignment-03.

2. Returns the average marks in each assignment.

3. Average marks of all students in all assignments.

Write a c program which meet above mentioned requirements each assignment total marks are 100.

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

Write a program for the following series using loop

