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, 10 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:

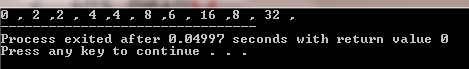
1. Purchase a ticket. The ticket price is PKR 1000 for sophomore’s students and 500 for junior’s students. You also offer 15% discounts who buy more than 5 tickets.

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

3. Termination of the program.

**Question No. 2** **[30 mins, 5 Points]**

Write a program for the following series using loop



**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 (using loops) in Assignment-01 Assignment-02 and Assignment-03.
   1. Assignment 1 is of 50 marks
   2. Assignment 2 is of 80 marks
   3. Assignment 3 is of 100 marks

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.