This quiz is designed to help you prepare for the hand-coding exam, focusing on the concepts we have covered so far: Variables, Arithmetic Operations, Control Statement, Loops, Arrays and File Processing.

You will be given an additional A4 sheet to write your answers. Please use the concepts you have learned to solve the problems and submit your completed answer sheet.

- **Write your student ID and name in the upper right corner.**
- **Submit only the answer sheet; you may keep the question paper.**

The top 3 scorers in this quiz will receive a free pass for one future quiz, so do your best!

Q1) Variables (★)

Declare two integer variables a, b with values 12 and 25. Print both variables and their sum.

• **Input:** No input

• **Output:** a = 12, b = 25, Sum = 37

Q2) Arithmetic Operations (★★)

Input two integers x, y and write a program that calculates and prints:

- Quotient (integer division), Remainder, Real division result

• **Input:** Two integers (e.g., "x=2, y=17")

• **Output:** Free

Q3) Control Statement – Maximum (★★)

Input three integers. Print the largest value.

• **Input:** Three integers (e.g., "28, 79, 15")

• **Output:** Maximum = ?

Q4) Loops – Sum and Product (★★★)

Input an integer n. Compute the sum of 1 to n and the product of 1 to n.

• **Input:** A single integer n (e.g., "5")

• **Conditions:** Sum = ?, Product = ?

Q5) Arrays – Sum and Average (★★★)

Declare an integer array of size 5. Input 5 integers into the array. Compute the sum and the average.

• **Input:** Five integers (e.g., "12, 18, 21, 7, 89")

• **Output:** Sum = ?, Average = ?

Q6) Control + Loops – Prime Check (★★★★)

Input an integer n. Check if it is a prime number.

• **Input:** A single integer n (e.g., "7")

• **Output:** ~ is prime number. / ~ is not a prime number. (~ : e.g. number)

Q7) Arrays – Maximum and Minimum (★★★★)

Declare an integer array of size 7. Input 7 integers. Print the maximum and minimum.

• **Input:** Seven integers (e.g., "17, 3, 90, 38, 85, 67, 23")

• **Output:** Min = , Max =

Q8) File Processing – Data Summary (★★★★★)

The sum of numbers where remainder is 2 when divided by 3 A text file "Numbers.txt" contains several integers. Read them all, compute the sum and average, and write the results into "Result.txt".

• **Input:** File “Numbers.txt” with integers (make free)

• **Output:** File "result.txt" should contain → Sum, Average