COMSATS University Islamabad
Sahiwal Campus
(Department of Computer Science)

Course Title:	Programming Fundamentals			Course Code:	CSC103		Credit Hours:	4
Course Instructor:	Dr. Javed Ferzund			Programme Name:	BSCS			
Semester:	2nd	Batch: SP22	Section:	A & B		Date:	20/01/2023	
Time Allowed:	150 Minutes			Maximum Marks:			40	
Student's Name:	Hanzala Akeel.			Reg. No. CUI/ SP22-BS-CS-004				/SWL

Important Instructions / Guidelines:
Read the question paper carefully and answer the questions according to their statements.
Mobile phones are not allowed. Calculators must not have any data/equations etc. in their memory.
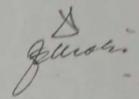
Terminal Examination FALL-22
(Part 2)

Note: All questions carry equal marks.

1. Create an array to store height of 50 students. Write the code to find the maximum height value in the created array.

2. Create a 10*5 2-dimensional array to store the marks of 10 students obtained in 5 subjects. Rows represent the students and columns represent the subjects. Calculate the sum of marks of all subjects for each student. [hint: cell[0][0] contains the marks of 1st student in the 1st subject]

3. Write a function that takes an integer number as argument and returns the sum of its digits.

4. Write a function that takes 2 parameters: first parameter is a number and second parameter is power of the number which user wants to take. The function calculates the power of number and returns the result.

5. Write an example to differentiate Pass by Value and Pass by Reference in functions.

6. Define a structure Student having data members name, age and program. Create two Student variables and assign values to its data members by getting from user.

7. Define a structure Room having data members id, type and capacity. Create an array of 5 Rooms and assign values to the data members of each Room using for loop.

8. Write a function that takes array of Room as argument and returns the Room id with maximum capacity.

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Course Instructor:	Dr. Javed Ferzund		Programme Name:	BSCS		
Semester:	2nd	Batch: FA21 Section: D		Date:	04/07/2022	
Time Allowed:	130 Minutes		Maximum Marks:		35	
Student's Name:			Reg. No. CUI/			/SWL

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Terminal Examination Spring-22
(Part 2)

1. Write a program to calculate and display the sum of even numbers present in an array of 10 elements.

2. Create a 4*4 matrix using 2-dimensional array and display the values of its elements except the diagonal values.

3. Write a function that takes an integer number as argument and returns the factorial of that number.

4. Write a function that takes 2 parameters: first parameter is a number and second parameter is power of the number which user wants to take. The function calculates the power of number and returns the result.

5. Define a structure Person having data members name, age and profession. Create two Person variables and assign values to the data members.

6. Define a structure Book having data members title, author and price. Create an array of 5 Books and assign values to the data members.

7. Write a function that takes array of Book as argument and returns the total price of all books present in the array.