

TERM-III EXAMINATION - MONSOON 2024

Computer Programming

CSE: UG1-IC

Date: 29-10-2024

Duration: 90 Mins (09:15-10:45 AM)

Max. Marks: 24

Instructions:Roll No: 520240010020

1. All questions are compulsory.
2. Write the answers legibly.
3. This is a closed book exam. No material and electronic devices are allowed.

1	Let there are two files (one.txt & two.txt) with sorted marks in them. Merge these two sorted lists into a single list and write it to the third file (merged.txt).	[6 Marks]
2	<ol style="list-style-type: none"> 1. Explain the difference between struct and union. 2. Explain how to create a linked list and insert a node at front with proper diagrams and code? For example, the list is: 3, 5, 2, 8, 1, 7. 	[6 Marks]
3	<ol style="list-style-type: none"> a. What do you understand about memory leak, and how can it be prevented? b. Write a program in C to find the largest element using Dynamic Memory Allocation. 	[3 Marks] [3 Marks]
4	<ol style="list-style-type: none"> a. What is the output of following code <pre>#include <stdio.h> struct product { int code; char *name; double price; }; int main() { struct product p[] = { (1001, "Laptop", 55000.50), (1002, "Smartphone", 20000.75), (1003, "Tablet", 15000.25) }; printf("Code: %d, Name: %s, Price: %.2lf, Price: %.2lf\n", (*p + 2).code, p[0].name, (1[p]).price, p[2].price); return 0; }</pre> b. Write a C program that: <ol style="list-style-type: none"> 1. Accepts a series of command-line arguments (excluding the program name itself). 2. Prints the length of the longest argument passed. 	[2 Marks]

	<p>3. If no arguments are passed (other than the program name), displays the message: " No arguments Passed"</p> <p>Additionally, provide at least 2 test cases to validate your program. For each test case, include:</p> <ul style="list-style-type: none">• Input (Command-line arguments)• Expected Output	[4 Marks]
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