Internal Assessment Question Paper – 1
M.S. Ramaiah Institute of Technology
(Autonomous Institute, Affiliated to VTU)
Department of CSE

Programme: B.E
Course: Principles of Programming in C
Sem: I
Max Marks: 30

CIE: I
Time: 1Hr

Term: Oct 2024 – Jan 2025
Course Code: PPC18
Section: All
Portions for Test: L1-L13

Instructions to Candidates: Mobiles, smart watches or any electronic gadgets are strictly banned.
Question 1 is compulsory. Answer any one from question 2 and 3.

Sl #			Question	Marks	Bloom's Level	CO Mapping
1	a)	i.	If x, and y are integer variables and z is a floating point variable, where x=2 and y=3 what will be the value of z if z=x/y?	5	3	CO1, CO2
		ii.	If a=3, b=4, c=5, find the value of y. $y = --a * (3+b) / 2 - c++ * b$			

		iii.	What will be the output?
			`int number=5;`
			`switch (number)`
			`{`
			`  case 1:`
			`  case 2:`
			`  case 3:    printf("One, Two, or Three.\n");   break;`
			`  case 4:`
			`  case 5:`
			`  case 6:    printf("Four, Five, or Six.\n");    break;`
			`  default:   printf("Greater than Six.\n");`
			`}`			

		iv.	What will be the output
			`int count = 1;`
			`while (count <= 25)`
			`{`
			`   printf("%d",count);`
			`   count = count - 1;`
			`}`			

		v.	Find the error in the following code snippet:
			`for (int i = 0; i <= 10; i--);`
			`      printf("%d ", i);`			

	b)		Analyze the following code snippet and answer the questions below:	5	3	CO3

		`int arr[5] = {1, 2, 3};`
		`for (int i = 0; i < 5; i++)`
		`   printf("%d ", arr[i]);`
		i. What happens to the uninitialized elements of the array
		ii. Is the declaration int arr[5] = {1, 2, 3}; valid? Why or why not?
		iii. Modify the code to initialize all array elements to 0 without explicitly specifying each element.
		iv. Predict the output of the above code.			

	c)	what is an array? Explain the declaration and initialization of an array with an example.	5	2	CO3
2	a)	Explain the structure of the C program in detail with examples.	5	2	CO1
	b)	What are formatted input and output statements in C. Explain with an example.	5	2	CO1
	c)	What is a data type? Explain different datatypes in c and write a c program to calculate the area and circumference of a circle using PI as a defined constant.	5	3	CO1
OR					
3	a)	What is the difference between implicit and explicit type conversion in C? Write a C-Program to print the number and sum of digits in an integer	5	3	CO2
	b)	What is the difference between pretest and post-test loops? Provide examples of each. Write a program to calculate the sum of the first 10 natural numbers using a pretest loop.	5	3	CO2
	c)	Explain different conditional statements in C with example.	5	2	CO2

Course Outcomes meant to be assessed by the IA Test-I:

- CO1: Identify the basic elements of Computing Systems and C Programming Constructs.
- CO2: Demonstrate the use of Operators & Expressions, Decision Making and Looping Statements.
- CO3: Explore Arrays and User-Defined Functions in Implementing Solutions to Real worldProblems