

Basavarajeswari Group of Institutions

2025 SCHEME

BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT

(Autonomous Institute under Visvesvaraya Technological University, Belagavi)

USN

--	--	--	--	--	--	--	--	--	--

Course Code

1BEITI105/2025

First/Second Semester B.E. Degree Examinations, July 2026

PROGRAMMING IN C

Duration: 3 hrs

Max. Marks: 100

Note: 1. Answer any FIVE full questions choosing ONE Full Question from each Module
2. Missing data, if any, may be suitably assumed

<u>Q. No</u>	<u>Question</u>	<u>Marks</u>	<u>(RBTL:CO: PI)</u>
<u>Module-1</u>			
1.	a. What are computer languages? Explain the types of languages.	06	(2 :1: 2.6.2)
	b. Explain the general form of a C program with example.	07	(2 :1: 2.6.2)
	c. Draw flow chart and write a C program to find the largest of 3 numbers (using conditional operators).	07	(3 :1: 2.6.2)
(OR)			
2.	a. Write a brief history of C language.	06	(1 :1: 2.6.2)
	b. Discuss in detail "Storage class specifiers".	07	(2 :1: 2.6.2)
	c. Develop a C program to multiply, subtract and division by taking two whole numbers. Choose suitable data types for variables.	07	(3 :1: 2.6.2)
<u>Module-2</u>			
3.	a. Explain the Two-Way selection (if and if-else) in C language with syntax & example.	06	(2 :2: 1.6.1)
	b. What is meant by iterative statements? Explain the different types of iterative statements in C.	07	(2 :2: 1.7.1)
	c. Write a complete C program using the if-else if ladder structure to accept a student's numerical score and print the corresponding grade according to the following criteria: A (90-100), B (80-89), C (70-79), and Fail (below 70).	07	(3 :2: 2.5.1)
(OR)			
4.	a. Explain unconditional statements break, continue and exit with an example.	06	(2 :2: 1.6.1)
	b. Analyze the differences between gets() vs. scanf() and puts() vs. printf().	06	(4 :2: 1.7.1)
	c. Write a C program using the switch statement that accepts an integer from 1 to 7 representing the day of the week (1=Monday, 7=Sunday). The program must output "Weekday" for days 1 through 5, and "Weekend" for days 6 and 7.	08	(3 :2: 2.5.1)
<u>Module-3</u>			
5.	a. Define an array. Explain how a two dimension array is declared and initialized.	08	(2 :2: 1.6.1)
	b. Explain pointer operators (& and *) with suitable examples.	06	(2 :2: 1.7.1)

Note: (RBTL - Revised Bloom's Taxonomy Level: CO - Course Outcome: PI- Performance Indicator)

	c.	Write a C program that reads N integer numbers and arrange them in ascending order using Bubble Sort technique.	06	(3 :2: 2.5.1)
		(OR)		
6.	a.	Explain how an array of strings is declared in C with example.	06	(2 :2: 1.6.1)
	b.	Define string. Explain string declaration and initialization with a simple program.	07	(2 :2: 2.6.2)
	c.	Write a C program to compute the length of a string, compare & concatenate two strings using standard library functions.	07	(3 :2: 2.5.1)
		Module-4		
7.	a.	Define function. Explain the terms function declaration/prototype, function definition & function call with related example.	06	(2 :3: 2.6.2)
	b.	What are Command Line Arguments in a C program? Explain two parameters argc and argv in the main() function.	07	(2 :3: 2.6.2)
	c.	Write a complete C program to swap two integer values using a separate function that implements the call by reference parameter passing technique.	07	(3 :3: 2.6.2)
		(OR)		
8.	a.	Define function. Explain the terms function declaration/prototype, function definition & function call with related example.	06	(3 :3: 2.6.2)
	b.	What are pointers to functions, and how can they be used to call functions.	07	(2 :3: 2.6.2)
	c.	Define recursion. Write a C program that computes the factorial of a given non-negative integer using a recursive function.	07	(3 :3: 2.6.2)
		Module-5		
9.	a.	What are structures in C? Write a program to declare, initialize, and access structure members.	06	(3 :4: 2.6.2)
	b.	Define enumeration (enum) in C. Write a program using enum.	07	(3 :4: 2.6.2)
	c.	A local library needs to store and display details of its books, including title, author, and year of publication. Design a structure that can hold these details and develop a C program to display a list of all books entered.	07	(3 :4: 2.5.1)
		(OR)		
10.	a.	Define a union in C. Compare structures and unions with respect to memory allocation.	06	(2 :4: 2.6.2)
	b.	What are bit fields in C? Explain their syntax and advantages with an example.	07	(2 :4: 2.6.2)
	c.	Develop a C program to access and modify the members of structures, in array of structures in C.	07	(3 :4: 2.5.1)

*** ** **