Amrita Vishwa Vidyapeetham

Amrita School of Computing/Engineering, Amaravati

B. Tech. End semester Examinations –January 2025

First Semester

Computer and Communication Engineering

23CCE103 Computer Programing

Duration: Three hours

Maximum: 100 Marks

Course Outcomes (COs):

CO	Course Outcomes
CO01	Understand the syntax and semantics of programming
CO02	Apply appropriate programming constructs.
CO03	Analyze programs and debug errors.
CO04	Develop programs to solve specific problems.

Answer all questions

1) Explain the concept of operators in programming and outline three distinct types with relevant examples. [10] [CO01] [BTL 2]

2) Convert the following numbers:
(i) $(10101011101.011)_2 = ()_{16}$ (ii) $(123)_{10} = ()_2$ (iii) $(574.32)_8 = ()_2$
(iv) $(1011.10)_2 = ()_{10}$ (v) $(334.43)_8 = ()_2$ [10] [CO01] [BTL 3]

3) A. What do you mean by Parameter passing? [4] [CO03] [BTL 2]
B. Analyse different types of parameters passing mechanism in C with examples[6][CO03] [BTL 2]

4) Evaluate a program utilizing a structure called 'date' with members: date, month and year. The program should compare two provided dates and display "Equal" if they match or "Unequal" if they differ. [10] [CO04] [BTL 5]

5) A. Distinguish between structures and arrays? [5] [CO01] [BTL 2]
B. Give an example program for array of structures. [5] [CO01] [BTL 3]

6) What is string? Explain different string functions with examples. [10] [CO02] [BTL 3]

7) A. Explain the dynamic memory allocation [5] [CO03] [BTL 2]
B. Various functions for dynamic memory allocation with suitable examples. [5] [CO03] [BTL 3]

8) Write a program to check a number is prime number or not. [10] [CO02] [BTL 4]

9) Determine the largest element within a 3x3 matrix by using C program. [10] [CO04] [BTL 4]

10) Implement a C program that utilizes recursive programming principles to generate and display the Fibonacci series. [10] [CO04] [BTL 5]

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Course Outcome /Bloom's Taxonomy Level (BTL) Mark Distribution Table

CO	Marks	BTL	Marks
CO01	30	BTL 1	
CO02	20	BTL 2	30
CO03	20	BTL 3	30
CO04	30	BTL 4	20
CO05		BTL 5	20
CO06		BTL 6	