(Pages: 2) Reg. No..... (CUCBCSS-UG) CC15U BCS1 B01/CC15U BCA1 B01 - PROBLEM SOLVING USING - C (Core Course) (2015 & 2016 Admissions - Supplementary) Maximum:80 Marks I. Answer the following. Each question carries 1 mark. 1. What are identifiers? 2. Define string constant. 3. Give the syntax of else-if ladder. 4. Explain symbolic constants. 5. What do you mean by C tokens? 6. Define Structure. 7. What is an algorithm? 8. What are arrays? 9. What are preprocessor directives? 10. What is register storage class? (10 x 1 = 10 Marks)II. Answer *all* questions. Each question carries 2 marks. 11. Explain any two string handling functions 12. Explain command line arguments. 13. Explain basic structure of C programs, 14. What are the elements of user-defined function? 15. Explain getchar() and putchar() functions with an example. $(5 \times 2 = 10 \text{ Marks})$ III. Write any *five* questions. Each question carries 4 marks. 16. Explain the syntax and execution of 'while' loop and 'for' loop.

- 17. What is the difference between passing by value and passing by reference?
- 18. What are the different types of variable storage class in C?
- 19. Explain break, continue and goto statements with suitable examples.
- 20. What are data types in C? Explain the different types of data types with example.
- 21. Write an algorithm and flowchart to compute the sum of digits of a given integer number.

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Name:

FIRST SEMESTER B.Sc./B.C.A. DEGREE EXTERNAL EXAMINATION, NOV. 2019

Time: Three Hours

- 22. What is meant by dynamic memory allocation? Explain various memory allocation functions.
- 23. Explain declaration and initialization of one and two dimensional arrays.

(5 x 4 = 20 Marks)

- IV. Answer any *five* questions. Each question carries 8 marks.
 - 24. Explain different types of operators available in C language with suitable examples.
 - 25. Explain decision making and branching statements with example.
 - 26. What is a recursive function? Write a recursive function to find the factorial of a number.
 - 27. Explain the concept of array of structures. Write C program to find the average mark obtained by each student, given the marks in three subjects for a group of 4 students.
 - 28. What do you mean by files? Explain the syntax of declaration and different modes of opening a file.
 - 29. Write a C program to find the roots of Quadratic equation.
 - 30. What is meant by pointers? How can you declare and initialize pointers? Explain with example.
 - 31. Write C program using the concept of functions to add two given matrices.

(5 x 8 = 40 Marks)
