Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_\_

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**End Semester Examination – Apr/May – 2018**

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| **Code :** | **16CS2003** | **Duration :** | **3hrs** |
| **Sub. Name :** | **FUNDAMENTALS OF C PROGRAMMING** | **Max. marks :** | **100** |

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| **Q. No.** | **Questions** | **Course Outcome** | **Marks** |
|  | **PART-A(20X1=20 MARKS)** | | |
| 1. | What is an identifier? | CO1 | 1 |
| 2. | How many bytes are required to store integer type value? | CO1 | 1 |
| 3. | What is a variable? | CO1 | 1 |
| 4. | Define expression. | CO1 | 1 |
| 5. | What is the use of getchar() function? | CO2 | 1 |
| 6. | Give syntax of simple if statement. | CO1 | 1 |
| 7. | Is a switch statement faster than if else? Justify. | CO1 | 1 |
| 8. | Do-while statement is otherwise called as \_\_\_\_\_\_\_\_\_\_\_. | CO1 | 1 |
| 9. | What is the purpose of break statement? | CO1 | 1 |
| 10. | Define function. | CO2 | 1 |
| 11. | What is an array? | CO2 | 1 |
| 12. | The function call itself again and again is called \_\_\_\_\_\_\_\_\_\_\_. | CO2 | 1 |
| 13. | What do you mean by NULL character? | CO2 | 1 |
| 14. | Define string. | CO2 | 1 |
| 15. | Give the syntax of declaration of a pointer. | CO2 | 1 |
| 16. | List out the operators used in a pointer. | CO2 | 1 |
| 17. | Define union. | CO2 | 1 |
| 18. | A structure can be nested inside another structure. (True/False) | CO2 | 1 |
| 19. | What is a file in C? | CO3 | 1 |
| 20. | \_\_\_\_\_\_\_\_\_\_\_ function accepts the file pointer as the parameters and read one character at a time from the file. | CO3 | 1 |

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|  | **PART B(10 X 5= 50 MARKS)**  **(Answer any 10 from the following)** | | |
| 21. | Explain the various data types used in C. | CO1 | 5 |
| 22. | Discuss the various types of constant in C with examples. | CO1 | 5 |
| 23. | Differentiate while and do-while statements in tabular form. | CO1 | 5 |
| 24. | Write a C program to find the sum of n natural numbers using for loop. | CO1 | 5 |
| 25. | Explain the gets() and puts() function with examples. | CO2 | 5 |
| 26. | Write a C program to check whether the number is odd or even using function. | CO1 | 5 |
| 27. | Explain the goto statement with example. | CO1 | 5 |
| 28. | Explain the reading and writing string using printf() and scanf() functions. | CO2 | 5 |
| 29. | Write a C program to addition of two numbers using pointer. | CO2 | 5 |
| 30. | How to access a structure members in C? Explain with example. | CO2 | 5 |
| 31. | Explain the concepts of union in C. | CO2 | 5 |
| 32. | Discuss about opening and closing a file in C. | CO3 | 5 |

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|  | **PART C(2 X 15= 30 MARKS)**  **(Answer any 2 from the following)** | | | |
| 33. | a. | Explain the arithmetic, relational, logical and bitwise operators in C with examples. | CO1 | 10 |
| b. | Write a C program to find the greatest of three numbers. | CO1 | 5 |
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| 34. | a. | Write a C program to display arithmetic operator using switch case. | CO1 | 8 |
| b. | Write a C program to find factorial of a given number using recursion. | CO2 | 7 |
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| 35. | a. | Explain the methods of passing argument to a function with examples. | CO2 | 10 |
| b. | Differentiate structure and union in C. | CO2 | 5 |