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

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**End Semester Examination – Nov/Dec – 2018**

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| **Code :** | **17CA2004** | **Duration :** | **3hrs** |
| **Sub. Name :** | **PROGRAMMING IN C** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Draw a flowchart to find the sum and product of digits. | CO1 | 7 |
| b. | Explain the components of a computer. | CO1 | 6 |
| c. | Define algorithm. Write down the algorithm for finding the area of circle. | CO1 | 7 |
| (OR) | | | | |
| 2. | a. | Justify why C programming is insisted as structured programming through suitable examples. | CO1 | 14 |
| b. | Explain the different phases of Software Life Cycle Model. | CO1 | 6 |
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| 3. | a. | What is a Keyword? List down few key words available in C. | CO3 | 5 |
| b. | Distinguish between constant and variables in C with example. | CO3 | 5 |
| c. | List and explain the different types of constants supported by C | CO3 | 10 |
| (OR) | | | | |
| 4. | a. | What is the result of following operation?  i) 1 1 0 0 ii) 1 0 1 0 iii) 1 1 0 0 iv) 1 1 0 0  0 1 0 1 (&) 0 1 0 1 ( | ) 1 1 0 0 ( ^) (~) | CO3 | 5 |
| b. | With suitable example, explain the various types of operators available in C. | CO3 | 15 |
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| 5. | a. | Explain the various types of decision making statements in C with suitable programs. | CO4 | 15 |
| b. | Distinguish between entry controlled loop and exit controlled loop. | CO4 | 5 |
| (OR) | | | | |
| 6. | a. | What is a function? Explain the four categories of functions in C with suitable examples | CO4 | 15 |
| b. | Write a program to find the sum of all elements stored in an array | CO4 | 5 |
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| 7. | a. | Write short notes on i) Automatic ii) Register iii) External iv) static variables. | CO3 | 8 |
| b. | Write a C program to store student details like reg\_no, name, gender and display the student record using array of structures. | CO6 | 12 |
| (OR) | | | | |
| 8. | a. | Discuss any five string handling functions in C with suitable example. | CO4 | 14 |
| b. | Distinguish between structure and union. | CO4 | 6 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. | a. | Write down the uses of typedef data type. | CO4 | 5 |
| b. | Write a program to get the student information from the user and store the contents in a file. | CO4 | 7 |
| c. | Explain the various file handling functions. | CO6 | 8 |