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

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

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| **Code :** | **13CS101** | **Duration :** | **3hrs** |
| **Sub. Name :** | **FUNDAMENTALS OF COMPUTING AND PROGRAMMING** | **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. | Discuss about the basic computer organization. | CO1 | 15 |
| b. | Determine the octal equivalent of (459)10 | CO1 | 5 |
| (OR) | | | | |
| 2. | a. | Illustrate about the types of software. | CO1 | 10 |
| b. | List and explain the software development steps. | CO1 | 10 |
|  |  |  |  |  |
| 3. | a. | Draw a flow chart to calculate simple interest. | CO2 | 5 |
| b. | List the rules for declaring a variable. | CO2 | 5 |
| c. | Explain the data types available in C. | CO2 | 10 |
| (OR) | | | | |
| 4. | a. | Explain about relational, logical, bitwise operator | CO2 | 15 |
| b. | Develop a program to check to find the given number is odd or even using conditional operator. | CO2 | 5 |
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| 5. |  | Elaborate about the various decision control statement. | CO2 | 20 |
| (OR) | | | | |
| 6. | a. | Develop a program to check whether the given number is amstrong number or not. | CO2 | 5 |
| b. | Discuss about loop control statements with suitable example. | CO2 | 15 |
|  |  |  |  |  |
| 7. | a. | Compare call by value and reference with suitable example. | CO3 | 14 |
| b. | What is recursion? Write a program to calculate the factorial of a number using recursion. | CO3 | 6 |
| (OR) | | | | |
| 8. | a. | Explain about storage class with suitable example. | CO3 | 10 |
| b. | Explain any five string handling functions with example. | CO3 | 10 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. | a. | Differentiate structure and union. | CO3 | 10 |
| b. | Develop a program to maintain student mark details using structure. | CO3 | 10 |