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

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**End Semester Examination – Nov/Dec – 2017**

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| **Code :** | **17CS1001** | **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. | Elaborate the various generations of computer. | CO1 | 10 |
| b. | Construct a block diagram and explain in detail about basic computer organization. | CO1 | 10 |
| (OR) | | | | |
| 2. | a. | Classify the types of computers. | CO1 | 10 |
| b. | Solve the following   1. ( B4) **16**  = ( ? ) **10** 2. ( 10101101 ) **2** = ( ? ) **8** 3. (36) **8 =** ( ? ) **2** 4. ( 101101101101 ) **2** = ( ?) **16** 5. ( DA3E ) **16=**( ? ) **2** | CO1 | 10 |
| 3. | a. | Develop an algorithm to calculate area of a circle. Draw a flowchart for the same. | CO2 | 10 |
|  | b. | Demonstrate the data types available in C. | CO2 | 10 |
| (OR) | | | | |
| 4. | a. | Illustrate with examples the following Operators in C  i. Bitwise operators. ii. Arithmetic Operators. iii. Assignment Operators. | CO2 | 10 |
|  | b. | Explain the Input and Output Functions in C with examples. | CO2 | 10 |
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| 5. | a. | Construct a C program to find the largest of three numbers. | CO3 | 6 |
|  | b. | Explain string handling functions with an example program for each function. | CO5 | 14 |
| (OR) | | | | |
| 6. | a. | Compare break and continue statement with illustrations. | CO4 | 6 |
|  | b. | Build a C program to find the sum of elements in an array and display the array elements in reverse order. | CO5 | 14 |
| 7. | a. | What is Call by Reference. Create a C program to swap two numbers using call by reference. | CO4 | 10 |
|  | b. | Define recursion. Develop a C program to calculate factorial of a given number using recursion. | CO4 | 10 |
| (OR) | | | | |
| 8. | a. | Discuss about the storage classes in C. | CO4 | 15 |
|  | b. | Demonstrate enumerated data type. | CO6 | 5 |
|  | | **Compulsory**: |  |  |
| 9. | a. | Summarize computer software and its types. | CO1 | 10 |
|  | b. | Construct a C program to display the student details using structures. | CO6 | 10 |

ALL THE BEST