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



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – Nov/Dec – 2016**

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|  |  | **Semester :** | **2016-17 ODD** |
| **Code :** | **14CS1001** | **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. | Describe the various computer generations along with the key characteristics of each generations. | CO1 | **15** |
| b. | List out the type of internet connection. | CO1 | **5** |
| **(OR)** | | | | |
| 2. | a. | Explain program development cycle with the help of block diagram. | CO1 | **10** |
| b. | Model a flow chart and pseudo code for the following problem statement.  “Calculate the area of circle” | CO3 | **10** |
| 3. | a. | What are the different signed and unsigned data types available in C programming? | CO4 | **10** |
| b. | Explain the structure of a C program with example. | CO1 | **10** |
| **(OR)** | | | | |
| 4. | a. | What are escape sequences? Explain the different types of unformatted functions in C programming. | CO4 | **10** |
|  | b. | Write a C program to demonstrate the usage of bitwise operators. | CO4 | **10** |
| 5. | a. | Write a C program using **for** loop, to find the sum of following series | CO3 | **10** |
|  | b. | What are decision statements? Draw its block diagram and explain with example? | CO4 | **10** |
| **(OR)** | | | | |
| 6. | a. | Write a C program using user-defined functions to convert the given number of seconds to hours, minutes and seconds. Pass int seconds as arguments to a function called “convert”. Then display the time in hh:mm:sec format. | CO3 | **10** |
|  | b. | What are the features of pointers? Explain void pointer with example. | CO4 | **10** |
| 7. | a. | What is storage class? List and explain the storage classes with example. | CO4 | **10** |
|  | b. | Write a C program to accept a text up to 20 characters and count the number of vowels, consonants and spaces. | CO3 | **10** |
| **(OR)** | | | | |
| 8. | a. | Demonstrate the usage of pointers with arrays, array of pointers and pointer to pointer with example. Also state the advantages of pointers. | CO4 | **15** |
|  | b. | Describe recursive function with example. | CO3 | **5** |
|  | | **Compulsory:** |  |  |
| 9. | a. | Write a C program to open a file named “Hello.txt” and write some text into the file, then open another file named “Upper.txt” in write mode then copy the contents of “Hello.txt” to “Upper.txt” in upper case. |  | **10** |
|  | b. | What is structure and union in C programming? Explain with suitable of example. | CO4 | **10** |

ALL THE BEST