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– 2017**

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| **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. | Explain the different generations of computer with its key characteristics. | CO1 | 15 |
| b. | What is software piracy? List its types. | CO1 | 5 |
| (OR) | | | | |
| 2. | a. | Demonstrate program development life cycle with example. | CO1 | 10 |
| b. | Model a flow chart and pseudo code for the following problem statement.  “Calculate the area of a triangle” | CO3 | 10 |
|  |  |  |  |  |
| 3. | a. | What is a variable? What are the rules to declare a variable? Explain the different data types of variable. | CO2 | 15 |
|  | b. | List out the types of internet connection. | CO1 | 5 |
| (OR) | | | | |
| 4. | a. | List and explain the various formatted and unformatted functions. | CO2 | 10 |
|  | b. | Describe type conversion with example. | CO3 | 10 |
|  |  |  |  |  |
| 5. | a. | Write a C program using **for** loop, to find the sum of following series | CO3 | 10 |
|  | b. | Draw the flow chart of switch – case statement and define its usage with an example program. | CO2 | 10 |
| (OR) | | | | |
| 6. | a. | Write a C program to read 10 integers in a single dimensional array and print the ascending and descending order. | CO3 | 10 |
|  | b. | |  |  | | --- | --- | | inti;  for (i=1; i<=5; i++)  {  if (i==3)  break;  printf(“%d”,i);  } | inti;  for (i=1; i<=5; i++)  {  if (i==3)  continue;  printf(“%d”,i);  } |   Predict and explain the output of the following code. | CO2 | 10 |
|  |  |  |  |  |
| 7. | a. | Write a C program using user-defined functions to convert the given number of seconds to hours, minutes and seconds. Pass into seconds as arguments to a function called “convert”. Then display the time in hh:mm:sec format. | CO3 | 15 |
|  | b. | What is recursive function? Write some example. | CO2 | 5 |
| (OR) | | | | |
|  |  |  |  |  |
| 8. | a. | List and explain the storage classes in C programming with example. | CO2 | 10 |
|  | b. | Describe the features of pointer and its types. | CO2 | 10 |
|  | | **Compulsory**: |  |  |
| 9. | a. | Write a C program using structure to manage the student details like name, regno, age, CGPA. Create an array of structure variables to store 10 students detail and then display with proper headers. | CO3 | 10 |
|  | b. | Discuss the difference between structure and union with example. | CO2 | 10 |

ALL THE BEST