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 :** | **16CS2002** | **Duration :** | **3hrs** |
| **Sub. Name :** | **FUNDAMENTALS OF JAVA 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. |  | Explain in detail about different types of operators in java with appropriate pseudo codes. | CO3 | 20 |
| (OR) | | | | |
| 2. | a. | Write a program to add diagonal, row wise and column wise elements in a matrix. | CO1 | 8 |
| b. | Studying the motion of objects, the distance (S) travelled by an object with initial velocity (u) in a certain time (t) with an acceleration (a) is given by S= ut+1/2(at^2). Write a program in java to calculate distance travelled by an object (S) by taking all other parameters as user inputs. | CO2 | 12 |
| 3. |  | Describe constructor overloading in java and its significance. Write a program in java using constructor overloading to calculate   1. Area of a Triangle 2. Volume of cube 3. Surface area of a sphere (*A=4πr^2)* ‘r’ is radius | CO1 | 20 |
| (OR) | | | | |
| 4. |  | Define inheritance in java. Write a program in java of your own choice to demonstrate the use of inheritance concept | CO3 | 20 |
| 5. |  | Define string handling in java. Write java programs for the following:   1. Find length of string 2. Concatenate 2 strings without using inbuilt function 3. Trim and replace | CO2 | 20 |
| (OR) | | | | |
| 6. |  | Explain the concept of multithreading concept with java program and give one example. | CO3 | 20 |
| 7. |  | Write a program in java to demonstrate the following exception handling mechanisms   1. Divide by zero 2. Index Array Out of Bounds 3. Negative Exception | CO1 | 20 |
| (OR) | | | | |
| 8. |  | Explain in brief on i. Garbage collection ii. Finalize method iii. JDBC connectivity. | CO2 | 20 |
|  | | **Compulsory**: |  |  |
| 9. |  | Write a java program to design a user registration form using AWT Graphics and Event Handling mechanisms. The registration form should consist of   1. TextFields:Username,password, email id 2. Radio Button: Gender input 3. List Menu : Choosing Country 4. Checkboxes : For Languages known 5. Button : Click to Register Successful Text | CO1 | 20 |