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



**End Semester Examination – Nov / Dec – 2019**

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| **Code :** | **14CS2040** | Duration : | **3hrs** |
| **Sub. Name :** | **PROGRAMMING IN JAVA** | 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 any three features of Java. | CO1 | 9 |
| b. | List any six primitive data types in Java. | CO1 | 3 |
| c. | Write a program in Java to count the number of digits in a number. | CO1 | 8 |
| (OR) | | | | |
| 2. | a. | Differentiate between entry control loop and exit control loop with sample code. | CO1 | 6 |
| b. | Illustrate any three bitwise opeartors. | CO1 | 6 |
| c. | Demonstrate labelled break and labelled continue with sample code. | CO1 | 8 |
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| 3. | a. | Explain the role of garbage collector with sample code. | CO1 | 6 |
|  | b. | Explain static polymorphism with sample code. | CO1 | 6 |
|  | c. | Illustrate the usage of variable arguments. | CO1 | 8 |
| (OR) | | | | |
| 4. | a. | Demonstrate dynamic method dispatch with sample code. | CO1 | 10 |
|  | b. | Illustrate the usage of try, catch, finally, throw and throws. | CO1 | 10 |
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| 5. | a. | Write necessary code snippet to create multiple threads using runnable interface. | CO4 | 10 |
|  | b. | Demonstrate the purpose of using isAlive( ) and join( ). | CO4 | 10 |
| (OR) | | | | |
| 6. | a. | Explain auto boxing and auto unboxing with sample code. | CO1 | 10 |
|  | b. | Examine the following code.  class Test{  inti;  public Test(inti) {  this.i = i;  }  }  Convert the class, Test into a generic class which can accept any type of argument in its constructor. | CO1 | 10 |
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| 7. | a. | Explain any two string handling methods/functions with sample code. | CO1 | 4 |
|  | b. | Write a program to read all the contents in a text file using FileReader and BufferedReader classes. | CO1 | 10 |
|  | c. | Explain serialization and deserialization. | CO1 | 6 |
| (OR) | | | | |
| 8. | a. | Explain TCP socket programming with sample code. | CO3 | 10 |
|  | b. | Explain the lifecycle methods of Applet with necessary code snippet. | CO2 | 10 |
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|  | | **Compulsory**: |  |  |
| 9. | a. | Demonstrate any two layout managers with necessary code snippet and diagrams. | CO2 | 10 |
|  | b. | Explain any five AWT controls with sample code. | CO2 | 10 |