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



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

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| **Code :** | **17CA2011** | **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. | List the arithmetic operators in Java and develop a program that uses these operators. | CO1 | 10 |
| b. | Explain the primitive data types in Java with examples. | CO1 | 10 |
| **(OR)** | | | | |
| 2. | a. | Explain the features of Java as object oriented programming language. | CO3 | 10 |
| b. | Outline the control statement in Java using suitable example. | CO1 | 10 |
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| 3. | a. | Explain the types of constructors with suitable example. | CO2 | 10 |
| b. | Explain method overriding with examples. | CO3 | 10 |
| **(OR)** | | | | |
| 4. | a. | Create an array of objects of the *Employee* class and read and print the details of n objects. | CO2 | 8 |
| b. | Explain inheritance in java with suitable example. | CO3 | 12 |
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| 5. | a. | Develop a program to use interface in java. | CO3 | 10 |
| b. | Design a program to handle an exception in java. | CO4 | 10 |
| **(OR)** | | | | |
| 6. | a. | How exceptions are handled in java? Explain with example. | CO4 | 10 |
| b. | Explain the use of package with suitable example. | CO3 | 10 |
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| 7. | a. | Outline the life cycle of an applet and write a program to display message in an applet window. | CO6 | 10 |
| b. | Construct a program to set priorty to thread. | CO5 | 10 |
| **(OR)** | | | | |
| 8. |  | Explain multithreading with suitable examples. | CO5 | 20 |
|  | | **Compulsory**: |  |  |
| 9. | a. | Explain any three layouts in java with example. | CO6 | 10 |
| b. | Design an applet window using AWT controls. | CO6 | 10 |