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



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

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| **Code :** | **16CA2011** | **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 the selection structures in Java with suitable examples. | CO1 | 10 |
| b. | List the arithmetic, relational and logical operators used in Java and develop a program that uses these operators. | CO1 | 10 |
| **(OR)** | | | | |
| 2. | a. | Explain the features of Java as a programming language. | CO1 | 10 |
| b. | Elaborate the datatypes in Java. | CO1 | 10 |
|  |  |  |  |  |
| 3. | a. | Create a class *Employee* with data members *emp\_name, emp\_id, designation* and *salary*. Use *get()* and *display()* methods to read and print the details. | CO1 | 10 |
| b. | Demonstrate how Java supports method overloading with an example. | CO1 | 10 |
| **(OR)** | | | | |
| 4. | a. | Create a class *Book* with the data members *title, author* and *pages*. Derive a class *publication* with the data members *publisher*, *edition.* Use methods to display book details. | CO1 | 10 |
| b. | Explain constructor with suitable example. | CO1 | 10 |
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| 5. | a. | Explain package with suitable example. | CO1 | 10 |
| b. | How exceptions are handled in Java? | CO2 | 10 |
| **(OR)** | | | | |
| 6. | a. | Explain method overriding with suitable example. | CO1 | 10 |
| b. | Build a program to create an interface in java. | CO1 | 10 |
|  |  |  |  |  |
| 7. | a. | Explain the creation of thread in Java with suitable example. | CO2 | 10 |
| b. | Build a program to create threads and to set priority for each thread. | CO2 | 10 |
| **(OR)** | | | | |
| 8. |  | Explain input and output operations in java. | CO1 | 20 |
|  | | **Compulsory**: |  |  |
| 9. | a. | Outline the life cycle of an applet and write a program to create an applet window to display welcome message. | CO3 | 10 |
| b. | Explain any three layouts in Java with suitable example. | CO3 | 10 |