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



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

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| **Code :** | **17CS2038** | **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. | a. | Discuss on the various features of Java. | CO1 | 10 |
| b. | Explain various iteration statements with necessary example. | CO2 | 10 |
| **(OR)** | | | | |
| 2. | a. | Explain in detail about operators in java with necessary example. | CO2 | 10 |
| b. | Write a java program to get two decimal numbers from user and perform anyone of the following operation using switch case.  i) Addition ii) Subtraction iii) Multiplication iv) Division | CO2 | 10 |
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| 3. | a. | Create a class called Account. Use constructor to initialize necessary data members like account\_holder\_name, account\_number and initial\_amount, etc. Account class should have following methods deposit(), withdraw() and balance\_Enquiry() to perform necessary operations. Create an object for above class to utilize all data members and methods. | CO1 | 10 |
| b. | Define an interface called “Shape” that contains a method called area().Write a java program to calculate the area of two shapes, Square and Rectangle by implementing the “Shape” interface. | CO1 | 10 |
| **(OR)** | | | | |
| 4. | a. | What is inheritance? Demonstrate various types of inheritance with necessary example. | CO1 | 15 |
| b. | Discuss various applications of packages in java. | CO4 | 5 |
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| 5. | a. | What is exception? How do you handle exception in Java? Discuss following exception handling keywords with necessary example.  i) Try ii) Catch iii) Throws. | CO4 | 15 |
| b. | Write short notes on enumeration in java. | CO5 | 5 |
| **(OR)** | | | | |
| 6. |  | Demonstrate the implementation of interthread communication with a suitable example. | CO3 | 20 |
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| 7. |  | Create a file named resume.txt. Write your resume in the file, resume.txt. Create another file called profile.txt. Write a java program copy the contents of resume.txt to profile.txt. | CO5 | 20 |
| **(OR)** | | | | |
| 8. |  | Demonstrate the various string functions with suitable example. | CO2 | 20 |
|  | | **Compulsory**: |  |  |
| 9. | a. | Discuss the following layout manager with suitable illustrations.  i) Flow layout ii) Border layout iii) Grid layout | CO6 | 15 |
| b. | Create a AWT frame based application program for addition of two numbers. | CO6 | 5 |