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



**End Semester Examination – Nov/Dec – 2017**

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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. | Discuss the features of Java. | CO1 | 8 |
|  | b. | Create a menu driven program to perform the various operation of ATM  i. Deposit ii. Withdraw iii. Display Balance | CO2 | 12 |
|  |  | (OR) |  |  |
| 2 | a. | List out the Arithmetic and logical operators used in Java with suitable examples. | CO1 | 10 |
|  | b. | Twenty-five numbers are entered from the keyboard into an array. Write a Java program to find out how many of them are even and how many are odd.Finally prints out number of odd and even numbers and list odd number and even numbers separately. | CO2 | 10 |
|  |  |  |  |  |
| 3 | a. | Illustrate the enhanced for loop to find cube of each element in a given array and display the same. | CO1 | 10 |
|  | b. | Create a class Account with two overloaded constructors. First constructor is used for initializing, name of account holder, account number and initial amount in account. Second constructor is used for initializing name of account holder, account number, address, type of account and current balance. Account class is having methods Deposit(), Withdraw(), and Get\_Balance().Make necessary assumption for data members and return types of the methods. Create objects of Account class and perform the above operations. | CO2 | 10 |
|  |  | (OR) |  |  |
| 4 | a. | Write a program in Java to create a Player interface. Inherit classes Cricket \_Player, Football \_Player and Hockey\_ Player from Player. Add the necessary features and functionality as given below in each class and customize members and functions according to the type of game. i. Add Player ii. Edit Player iii. Delete Player | CO2 | 10 |
|  | b. | Differentiate Error and Exception? How do you handle exceptions in order to avoid the stop midstream of the program? | CO1 | 10 |
|  |  |  |  |  |
| 5 | a. | Create an enumeration for months of year which includes days of month as member. Get any 2 months and calculate the difference. | CO2 | 10 |
|  | b. | What is Synchronization? How do you achieve in multithreading? Give Example. | CO1 | 10 |
|  |  | (OR) |  |  |
| 6 | a. | List character extraction string functions. And write a program to count the occurrence of a given character in a given String. | CO1 | 10 |
|  | b. | Write a program in Java that executes three threads. First thread displays “Good Morning” every one second, the second thread displays “Hello” every two seconds and the third thread displays “Welcome” every three seconds. Create the three threads by extending the Thread class. | CO2 | 10 |
|  |  |  |  |  |
| 7 | a. | Develop an application to provide perfect implementation of producer-consumer problem using Inter-thread Communication. | CO1 | 12 |
|  | b. | Draw and discuss the various AWT controls with sample code. | CO4 | 8 |
|  |  | (OR) |  |  |
| 8 | a. | Discuss about any four Listeners interface along with its methods and Event class with suitable example for any one Listener. | CO4 | 10 |
|  | b. | List the predefined layout manager classes and elucidate any two with example for arranging the calculator controls. | CO4 | 10 |
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|  |  | **Compulsory** |  |  |
| 9 | a. | Write a Java program to read content of two files and write the combined content on another file. | CO3 | 8 |
|  | b. | Create a student class with name ,regno, cpga, getdata() and printdata(). Create five student objects do to following operation,   1. Write above details into a file called “stu\_data.txt” through serialization 2. Retrieve data from “stu\_data.txt” and Print on console. | CO3 | 12 |

ALL THE BEST