CHRIST DEEMED TO BE UNIVERSITY, BENGALURU - 560029

End Semester Examination September/October - 2019 Bachelor of Computer Applications III SEMESTER

Code: BCA333 Max.Marks: 100
Course: OBJECT ORIENTED PROGRAMMING USING JAVA Duration: 3Hrs

SECTION A

Answer ALL the questions

10X2 = 20

- 1 How is Garbage Collection performed in Java?
- **2** What is the use of final keyword?
- **3** How will you declare 3 dimensional arrays in java?
- **4** Differentiate between the way you declare array in C/C++ and Java.
- **5** Can you declare a class as abstract and final also? Justify your answer.
- **6** When is the method "isEmpty()" of String class used?
- 7 Why the methods of interface are public and abstract by default?
- **8** What is a Byte Stream class? Give an example.
- **9** State the various window panes available in swing.
- 10 Which method is used to create JavaFX application?

SECTION B

Answer any FIVE questions

5X6 = 30

- 11 Develop a program in Java to do the following tasks in the given one dimensional integer array. a) the smallest integer in the array b) sum of the odd numbers in the array c) count of prime numbers in the array.
- 12 Write a program to explain constructor overloading.
- 13 Develop a program to find the number of words in a given string.
- 14 Develop a Java program to count the number of lines in a file.
- 15 What is a thread? Explain different methods of thread class?
- 16 What are the most commonly used methods of Component Class?
- 17 Write a JavaFx application to create a layout and add button to it.

SECTION C

Answer any FIVE questions

5X10 = 50

- 18 Develop a program in Java to accept a year from the keyboard and test whether it is leap year or not with all the conditions.
- 19 Define a class called Room with the following attributes:length, height, wall area, breadth and floor Area. Define a suitable constructor for this class and a method to display the details of the room.
- 20 Explain different uses of A final A keyword in Java with a sample code.
- Write a program to create a user defined exception "NoSuchProductException" which is thrown if any product name other than following is entered:Bread,Butter,Jam.
- 22 Define an interface for a Queue Data Structure. Create an IntegerQueue Class which implements this interface. The program should use an integer array for the data structure.
- 23 Explain different InputStream classes in Java.
- 24 Develop a simple calculator using Java Swing components with only +, -, /, * operations.