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Register Number:

DATE: 21-04-2017

**ST. JOSEPH’S COLLEGE (AUTONOMOUS), BENGALURU-27**

**IV Semester Examination, April 2017**

**B C A**

**CA 4315 : Java Programming**

**Time 3Hrs Max Marks 70**

 **This paper contains 2 printed pages and 3 parts**

**PART-A**

**Answer all TEN questions 2 x10 = 20**

1. Briefly explain how java differ from C++

2. Write a note about java virtual machine.

3. Write down the precedence of arithmetic operators.

4. When do we declare a method or class final?

5. What do you mean by wrapper classes?

6. Define an interface.

7. How applet differ from applications?

8. Discuss different levels of access protection available in java.

9. Briefly explain the concept of streams.

10. Write any four drawing methods of the graphics class.

**PART-B**

**Answer any FIVE questions 6 x5 = 30**

11. Differentiate while loop and do while loop with suitable diagram and example.

12. Explain Nested if statement. Write a java program to find out the largest among 3 numbers using nested if structure.

CA-4315-B-17

13. Explain the following with suitable example

 a) Static members (2 marks)

 b) Abstract Methods and classes (2 marks)

 c) Nesting of methods (2 marks)

14. a) Define inheritance. Explain various types inheritance in java.

b) Write a java program to find out the area and volume of a rectangle using inheritance.

15. a) Differentiate class and interface.

 b) Explain the life cycle of a thread

16. a) Explain how do we set priorities for threads? Give one example.

 b) Write a detailed note about byte stream classes.

17. How do we define try block and catch block in java? List some of the most common types of exception and causes of exception that might occur in java.

**PART-C**

**Answer any TWO questions 10 x2 = 20**

18. Explain switch statement with suitable diagram. Write a program to print the Julian date using switch statement.

19. a) Differentiate overloading and overriding of methods.

b) What do you mean by constructor overloading? Explain different types of constructors with suitable example.

20. Explain how to create and access packages.