**KLS Gogte Institute of Technology, Belgaum**

**Department of Computer Science & Engg Academic Year: 2016-17 (odd semester)**

**Internal Assessment Test II**

**Subject : OOP with Java Code: 15CS36 Semester: III**

**Div: A, B, C & D Date: 08/10/2016 Max. Marks: 25 Duration: 1 Hr.**

**Note: All questions are compulsory 5X5M=25M**

1. Construct a **Swapper** class in Java with two integer instance variables **x** and **y** and a constructor with two parameters that initialize the two variables. Also include three methods: A **getX()** method that returns x, a **getY()** method that returns y and a **void swap()** method that swaps the values x and y. Then create a **SwapperDemo** class that tests all the methods. [L3] [CLO2, PO4]
2. Define **this**. Demonstrate its use with the help of a suitable program in Java. [L2] [CLO2, PO4]
3. What are static methods? Explain its use. List their restrictions. [L2] [CLO2, PO1]
4. What is method overloading? Suppose that a class has an overloaded method named **add** with following implementations. *double* add (*double* x, *int* y) { *return* x+y;}

*double* add(*int* x, *double* y) { *return* x+y+1;}

*int* add (*double* x, *double* y) { *return* x+y;}

*double* add (*int* x, *int* y) { *return* x+y;}

(**Hint**: Can consider the role of automatic type conversion)

Identify the results of following method calls? [L3] [CLO2, PO1]

**i.** add (3, 3.14) **ii.** add (3.14, 3) iii**.** add (3, 3) **iv.** add (3.14, 3.14)

1. Demonstrate the concept of method with objects as arguments and objects as return type with suitable java program. [L3] [CLO2, PO4]

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