**SoCSET**

**BTech Semester III (2022-2025) - OOPJ**

**CET 1 Syllabus**

**UNIT 1**

1. **Basics of Java**
   1. History of Java
   2. Features of Java
   3. What is byte code and its importance
   4. JDK, JVM and JRE
   5. Java literals, keywords and variables
   6. The data types in Java
   7. The Java operators
   8. Implicit and Explicit Type Casting between primitives
   9. Java Control Statements - if, switch, loops- for, enhanced for, while, do-while and their nesting concepts, break, continue
2. **Arrays**
   1. What are Java arrays
   2. Advantage and disadvantage of Java arrays
   3. Declaration, Creation and Initialization of arrays
   4. Single and Multidimensional arrays
3. **Strings**
   1. What is a String in Java? Is it an object or a primitive?
   2. How to declare, create and initialize strings?
   3. What is the String Constant Pool and its effect?
   4. Common String methods
   5. What is StringBuffer in Java?
   6. Differentiate String versus StringBuffer
   7. Common StringBuffer methods
4. **Command Line Arguments**
   1. What are CLAs and their importance
   2. Demonstrate CLAs by writing some utility programs
5. **Java Wrapper Class**
   1. What are Wrapper Class and their importance
   2. How many types of wrappers are there
   3. Concept of autoboxing and unboxing

Inclusive:

1. Prepare the questions of detecting error and output for given code snippets
2. Prepare and practice Java programs related to the above three topics
3. Compile time error like possible loss of precision, cannot find symbol, number too large etc and runtime error NullPointerException, ArrayIndexOutOfBoundsException etc.

Subject Teachers

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