

SRINIX COLLEGE OF ENGINEERING, BALASORE



**DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING**

**ASSIGNMENT ON
OBJECT ORIENTED PROGRAMMING USING JAVA**

OBJECT ORIENTED PROGRAMMING USING JAVA

Assignment-I

- 1 a) Explain History and Evolution of Java?
 b) Summarize Java Buzz Words?
- 2 What are Java Selection Statements? Give an example to each one.
- 3 Illustrate the Iteration Statements with example.
- 4 Demonstrate what are Jump statements? Give an example for each of them.
- 5 a) Define Data Type. Criticize the declaration of variable in Java.
 b) What is Byte Code? Interpret the different states of Java Program execution?
- 6 a) Write a Java program to interchange the values without using temporary variable.
 b) Write a Java program to use Bit-wise operators.
- 7 a) Tell about the varargs in java? Write the syntax and develop any program.
 b) Give the Structure of Java? Explain type of programs in Java.
- 8 a) What is an Array? Explain types of arrays in Java with example.
 b) Write a Java program to read and display the array elements in order.
- 9 List the Java Tokens and discuss in detail.
- 10 What is an Operator? Explain type of operators in Java with example programs.

Assignment-II

- 1 a) What is mean by OOP? Explain OOP Concepts?
b) Explain in detail about Garbage Collector in Java.
- 2 a) Define Class, Method and Object? Show the syntax to define these in java.
b) What is a Constructor? Explain types of Constructors in Java? Write a java program to find the Area of Circle using Constructor.
- 3 Discuss about the static, final keywords with an example.
- 4 a) Recall Inheritance? Illustrate the types of inheritances.
b) Write a java program to implement multilevel inheritance concept.
- 5 a) Discuss about the super keyword in java with example.
b) Compare Method Overriding and Method Overloading.
- 6 Explain about the Dynamic Method Dispatch in Java with example program.
- 7 What is an abstract class? Explain all the cases to implement abstract class.
- 8 a) Create a java program to display “Hello! Java” using Class, Object and Method.
b) Give the differences between Abstract class and Interface
- 9 a) Discuss in detail about Abstract Classes in Java
b) What is an interface? List the rules to create an interface in java with example
- 10 a) Recall what is package? Explain how to create user defined package in java with example
b) Write a java program to find the factorial value of the given number using user defined package concept.

Assignment-III

- 1 a) What is a Java Exception and its Types
b) Explain about try, catch, statements with examples
- 2 a) Demonstrate Nested try statements with an example
b) List Java's Built-in Exception? Write the importance of finally block.
- 3 Write a java program to create own exception for Negative Value Exception if the user enter negative value.
- 4 Explain Exception handling fundamentals
- 5 a) Show what is meant by Uncaught Exception
b) Explain Java exception hierarchy
- 6 Inspect about multiple clauses with an example of arithmetic exception.
- 7 a) Explain about creating your own Exception clauses
b) Can we have an empty catch block? Justify
- 8 a) Summarize in detail about chained Exception?
b) Evaluate what happens when an exception is thrown by main method?
- 9 Contract in detail about throw and throws statements with examples
- 10 a) Give the difference between checked and unchecked exceptions?
b) Show the use of finally statements with examples

Assignment-IV

- 1 a) What is Multithreading? What are the ways to create multiple threads in java.
b) Explain about Thread Life Cycle.
- 2 a) Discuss how to set the priority to threads? What are the different ranges.
b) Write a java program to create two threads and execute simultaneously
- 3 a) Tell what is synchronization? Give its types and explain.
b) Write a java program to implement inter thread communication.
- 4 a) Define Daemon Threads? Explain with an example.
b) Write a java program to implement join() method in multithreading.
- 5 a) Define String? Explain different String declarations with an example
b) Write a java program to check the given string is palindrome or not.
- 6 a) Write the difference between String and StringBuffer classes.
b) Create a java program to sort the given names into ascending order.
- 7 List and explain any five string methods.
- 8 Write a Java program that creates three threads. First thread displays "Hello!" every one second, the second thread displays "Wear Mask !" every two seconds and "Use Sanitizer !" every 5 seconds.
- 9 Write the difference between Extending thread and implementing runnable?
- 10 Explain in detail about thread methods?

Assignment-V

- 1 Explain about Delegation Event Model in Event Handling with [CO6][L2] [12M] example.
- 2
 - a) Write a java program to implement Mouse Events.
 - b) Discuss about Source, Event and Listeners in event handling
- 3 Write a java program to develop Login Window using AWT
- 4
 - a) List out any 10 AWT classes and their syntax.
 - b) Demonstrate the Layout Managers in java? Explain.
- 5
 - a) Write a java program to implement Key events
 - b) Explain about the AWT Menu design.
- 6 Write a java program to develop Notepad Application using AWT.
- 7
 - a) Difference between AWT and Swings?
 - b) Create a java swing program implement Border Layout.
- 8 Write a java swing program to find the sum of two numbers.
- 9 Write a java swing program to find the factorial of the given number
- 10 Explain the following layout managers.
 - (a) Border layout.
 - (b) Grid layout.
 - (c) Flow layout.