



**SIDDARTHA INSTITUTE OF SCIENCE AND TECHNOLOGY
PUTTUR**

Siddharth Nagar, Narayanavanam Road – 517583

QUESTION BANK (DESCRIPTIVE)

Subject with Code : Object Oriented Programming through JAVA(19CS0510)

Course & Branch : B.Tech – CSE II Year

**UNIT-I
INTRODUCTION OF OOP & THE JAVA LANGUAGE**

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|----|----|--|-----------|------|
| 1 | a) | Explain History and Evolution of Java. | [L2][CO1] | [4M] |
| | b) | List and Explain Java Buzz Words. | [L1][CO1] | [8M] |
| 2 | a) | Define Conditional Operator. Narrate with the suitable example. | [L3][CO1] | [6M] |
| | b) | State the Java Selection Statements. Give an example to each one. | [L2][CO1] | [6M] |
| 3 | a) | With an example Explain about the Iteration Statements. | [L3][CO1] | [6M] |
| | b) | Illustrate the following OOP concepts: Abstraction, Encapsulation, Inheritance, Polymorphism. | [L2][CO1] | [6M] |
| 4 | a) | Define an Array. Classify the types of arrays in Java. | [L4][CO1] | [6M] |
| | b) | Define an Operator. Explain type of operators in Java with examples. | [L4][CO1] | [6M] |
| 5 | a) | List out the Jump statements in java. Give an example for each of them. | [L2][CO1] | [6M] |
| | b) | Discuss about command line arguments. Write a Program to add two numbers using command line arguments. | [L6][CO1] | [6M] |
| 6 | a) | Define the java Data Type. Give the declaration of variable in Java. Write the Rules. | [L3][CO1] | [6M] |
| | b) | What is the use of varargs in java? Describe with example program. | [L3][CO1] | [6M] |
| 7 | a) | Define a Byte Code. Give the different states of Java Program execution? | [L5][CO1] | [6M] |
| | b) | Write a Java program to use Bit-wise operators. | [L1][CO1] | [6M] |
| 8 | a) | Explain Java security, and Illustrate the Portability. | [L4][CO1] | [6M] |
| | b) | Explain the Structure of Java program. Explain type of programs in Java. | [L3][CO1] | [6M] |
| 9 | a) | Explain the Control Statements in Java with example. | [L3][CO1] | [6M] |
| | b) | Survey the use of static keyword in java with programming example. | [L4][CO1] | [6M] |
| 10 | a) | Write a Java program to read and display the array elements. | [L3][CO1] | [8M] |
| | b) | Identify the use of type casting in java programming. | [L3][CO1] | [4M] |

UNIT-2
INTRODUCING CLASSES

| | | | | |
|----|----|--|-----------|-------|
| 1 | a) | What is mean by OOP? Illustrate the Concepts OOP. | [L4][CO2] | [6M] |
| | b) | Write about Garbage Collector in Java and test how it works | [L5][CO2] | [6M] |
| 2 | a) | Define a Class, Method and Object. Write the syntax to define these in java. | [L3][CO2] | [4M] |
| | b) | What is a Constructor? Classify the types of Constructors in Java. | [L4][CO2] | [8M] |
| 3 | a) | Discuss about the static, final keywords with an example. | [L6][CO2] | [6M] |
| | b) | Write a java program to illustrate Constructor Overloading. | [L5][CO2] | [6M] |
| 4 | a) | Distinguish between method overloading and method overriding in java with suitable example. | [L4][CO2] | [4M] |
| | b) | What is Inheritance? Explain types of inheritances. | [L4][CO2] | [8M] |
| 5 | a) | Conclude the use of super keyword in java with example. | [L5][CO2] | [6M] |
| | b) | Write a java program to implement Method Overriding . | [L5][CO2] | [6M] |
| 6 | | Explain about the Dynamic Method Dispath in Java with example program. | [L3][CO2] | [12M] |
| 7 | | What is an abstract class? Explain all the cases to implement abstract class. | [L2][CO2] | [12M] |
| 8 | | Develop a java program to implement inheritance concept. | [L6][CO2] | [12M] |
| 9 | a) | What is a package? How to create user defined package in java with example. | [L1][CO2] | [6M] |
| | b) | What is an interface? Rules to create an interface in java with example. | [L1][CO2] | [6M] |
| 10 | | Write a java program to find the factorial value of the given number using user defined package concept. | [L3][CO2] | [12M] |

UNIT-III
EXCEPTION HANDLING & MULTITHREADED PROGRAMMING

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|----|----|---|-----------|-------|
| 1 | | What is an Exception? Explain different types of Exception with example. | [L4][CO3] | [12M] |
| 2 | a) | Explain about Nested try statements with an example. | [L3][CO3] | [6M] |
| | b) | What are Java's Built-in Exception? Write the importance of finally block. | [L6][CO3] | [6M] |
| 3 | a) | Write a java program to create own exception for Negative Value Exception if the user enter negative value. | [L3][CO3] | [6M] |
| | b) | Distinguish between caught and uncaught exception. | [L4][CO3] | [6M] |
| 4 | a) | What is Multithreading? Illustrate the ways to create multiple threads in java. | [L4][CO3] | [6M] |
| | b) | Explain about Thread Life Cycle. | [L2][CO3] | [6M] |
| 5 | a) | Discuss how to set the priority to threads? what are the different ranges. | [L6][CO3] | [6M] |
| | b) | Write a java program to create two threads and execute simultaneously. | [L3][CO3] | [6M] |
| 6 | a) | What is synchronization? How many types? Explain. | [L6][CO3] | [6M] |
| | b) | Justify with an example java program to implement inter thread communication. | [L5][CO3] | [6M] |
| 7 | a) | What are Daemon Threads? Explain with an example. | [L3][CO3] | [6M] |
| | b) | Write a java program to implement join() method in multithreading. | [L3][CO3] | [6M] |
| 8 | a) | What is a String? Explain different String declarations with an example. | [L1][CO3] | [6M] |
| | b) | Write a java program to check the given string is palindrome or not. | [L3][CO3] | [6M] |
| 9 | a) | Write the difference between String and String Buffer classes. | [L4][CO3] | [6M] |
| | b) | Write a java program to sort the given names into ascending order. | [L3][CO3] | [6M] |
| 10 | | Write a Java program that creates three threads. First thread displays — Good Morning every one second, the second thread displays- Hello every two seconds | [L3][CO3] | [12M] |

UNIT-4
GENERIC & INTRODUCING FILE HANDLING

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|----|----|--|-----------|-------|
| 1 | | Define Generics. Explain about Generics in java. | [L3][CO4] | [12M] |
| 2 | | Illustrate Generic class with an example. | [L5][CO4] | [12M] |
| 3 | | What is collection in java? Describe about collection class in java. | [L2][CO4] | [12M] |
| 4 | | Write short notes on collection frameworks of java. | [L4][CO4] | [12M] |
| 5 | | Write a program illustrating following framework. a)Array List b)Vector c)Hash Table d)Stack | [L2][CO4] | [12M] |
| 6 | a) | Write about various stream classes in java. | [L6][CO4] | [6M] |
| | b) | Discuss about various file methods in java. | [L6][CO4] | [6M] |
| 7 | | Discuss about the File Input Stream and File Output Stream in java with examples. | [L1][CO4] | [12M] |
| 8 | a) | How will you create a file in java with example. | [L3][CO4] | [6M] |
| | b) | How do you Write and Read a file in java with an example. | [L3][CO4] | [6M] |
| 9 | | Explain File handling using File class. | [L6][CO4] | [12M] |
| 10 | a) | Write a java Program to read a text file and print the number of unique words. | [L3][CO4] | [8M] |
| | b) | Explain File operations in java? | [L2][CO4] | [4M] |

UNIT-V
INTRODUCING THE AWT & JAVA8 FEATURES

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|----|----|---|-----------|-------|
| 1 | | Write a java Program to implement an AWT based calculator with basic operations. | [L6][CO5] | [12M] |
| 2 | | What is AWT? Discuss about AWT controls. | [L1][CO5] | [12M] |
| 3 | a) | Differentiate between AWT and SWING. | [L4][CO5] | [8M] |
| | b) | State the features of swings in java. | [L1][CO5] | [4M] |
| 4 | | List out the steps for creating simple user Registration form using java swing with an example. | [L3][CO5] | [12M] |
| 5 | | Explain Stream API in java. | [L3][CO5] | [12M] |
| 6 | | List and Explain Java Method References with an example. | [L6][CO5] | [12M] |
| 7 | | What is double colon operator? Explain and how to use double colon operator? | [L5][CO5] | [12M] |
| 8 | a) | Explain Lambda Expression. | [L3][CO5] | [8M] |
| | b) | Discuss Functional Interface in java. | [L2][CO5] | [4M] |
| 9 | | Explain the following methods in java. a) Default method b)Static method | [L3][CO5] | [12M] |
| 10 | a) | Explain java date and Time with an example. | [L6][CO5] | [8M] |
| | b) | Illustrate the operations on Streams. | [L5][CO5] | [4M] |

Prepared by
Dr.M.A.Manivasagam
Department of CSE, SISTK.