



**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY::PUTTUR**  
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**QUESTION BANK (DESCRIPTIVE)**

**Subject with Code:** Object Oriented Programming through Java (20CS0506)

**Course & Branch:** B.Tech – CSM, CAD &CAI

**Year & Sem:** II- B.Tech & II Sem

**Regulation:** R20

**UNIT-I**

**THE JAVA LANGUAGE & INTRODUCTION OF OOP**

|    |    |  |           |       |
|----|----|--|-----------|-------|
| 1  | a) | State the Java Selection Statements? Give an example to each one.  | [L1][CO1] | [6M]  |
|    | b) | List and Explain Java Buzz Words?  | [L2][CO1] | [6M]  |
| 2  | a) | Illustrate Following operators With the suitable example.<br>a) Bit-wise operator<br>b) Conditional operator | [L3][CO1] | [6M]  |
|    | b) | Explain History and Evolution of Java?   | [L2][CO1] | [6M]  |
| 3  |    | With an example Explain about the Iteration Statements.  | [L2][CO1] | [12M] |
| 4  |    | Define an Operator? Explain type of operators in Java with examples.   | [L2][CO1] | [12M] |
| 5  | a) | Explain Java security, and Illustrate the Portability?   | [L3][CO1] | [6M]  |
|    | b) | Describe command line arguments? Write a Program to add two numbers using command line arguments.            | [L6][CO2] | [6M]  |
| 6  | a) | Define a Data Type? Give the declaration of variable in Java. Write the Rules?                               | [L2][CO1] | [6M]  |
|    | b) | Write a Java program to read different data types using Scanner .  | [L6][CO1] | [6M]  |
| 7  | a) | Define a Byte Code? Give the different states of Java Program execution?                                     | [L2][CO1] | [6M]  |
|    | b) | Define an Array? Classify the types of arrays in Java.   | [L4][CO1] | [6M]  |
| 8  | a) | List Jump statements? Give an example for each of them.  | [L2][CO1] | [6M]  |
|    | b) | Explain the Structure of Java? Explain type of programs in Java.   | [L2][CO1] | [6M]  |
| 9  |    | Explain the Control Statements in Java with example.   | [L2][CO1] | [12M] |
| 10 |    | Write a Java program to read and display the array elements.   | [L6][CO2] | [12M] |

**UNIT-II  
INTRODUCING CLASSES**

|    |    |   |           |       |
|----|----|---|-----------|-------|
| 1  | a) | What is mean by OOP? Illustrate the Concepts OOP?   | [L3][CO1] | [6M]  |
|    | b) | Write about Garbage Collector in Java and test how it works   | [L6][CO2] | [6M]  |
| 2  | a) | Define a Class, Method and Object? Write the syntax to define these in java.                              | [L6][CO1] | [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.   | [L2][CO2] | [6M]  |
|    | b) | Write a java program to illustrate Constructor Overloading.   | [L6][CO2] | [6M]  |
| 4  | a) | What are the varargs in java? Write the syntax and develop any program.                                   | [L6][CO2] | [4M]  |
|    | b) | What is Inheritance? Explain types of inheritances.   | [L2][CO2] | [8M]  |
| 5  | a) | What is a package? How to create user defined package in java with example.                               | [L1][CO2] | [6M]  |
|    | b) | Distinguish Method Overriding and Method Overloading.   | [L5][CO2] | [6M]  |
| 6  |    | Write a java program to implement an interface using your own example.                                    | [L3][CO2] | [12M] |
| 7  |    | What is an abstract class? Explain all the cases to implement abstract class.                             | [L2][CO2] | [12M] |
| 8  |    | Write a java program to implement inheritance concept.  | [L6][CO2] | [12M] |
| 9  | a) | Write about the super keyword in java with example.   | [L6][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 fibonnaci series of the given number using user defined package concept. | [L6][CO2] | [12M] |

**UNIT-III**  
**EXCEPTION HANDLING & MULTITHREADED PROGRAMMING**

|    |    |  |           |       |
|----|----|--|-----------|-------|
| 1  |    | What is an Exception? Explain different types of Exception?  | [L2][CO3] | [12M] |
| 2  | a) | Explain about Nested try statements with an example.   | [L2][CO3] | [6M]  |
|    | b) | What are Java's Built-in Exception? Write the importance of finally block.   | [L6][CO3] | [6M]  |
| 3  |    | Write a java program to create own exception for Negative Value Exception if the user enter negative value.  | [L6][CO3] | [12M] |
| 4  | a) | What is Multithreading? Illustrate the ways to create multiple threads in java.  | [L6][CO4] | [6M]  |
|    | b) | Explain about Thread Life Cycle.   | [L2][CO4] | [6M]  |
| 5  | a) | Describe how to set the priority to threads? what are the different ranges.  | [L2][CO4] | [6M]  |
|    | b) | Write a java program to create two threads and execute simultaneously.   | [L6][CO4] | [6M]  |
| 6  | a) | What is synchronization? How many types? Explain.  | [L2][CO3] | [6M]  |
|    | b) | Illustrate creating of Thread in Java.   | [L3][CO4] | [6M]  |
| 7  | a) | What are Daemon Threads? Explain with an example.  | [L2][CO4] | [6M]  |
|    | b) | Write a java program to implement join() method in multithreading.   | [L6][CO3] | [6M]  |
| 8  | a) | What is a String? Explain different String declarations with an example.   | [L2][CO3] | [6M]  |
|    | b) | Write a java program to check the given string is palindrome or not.   | [L6][CO2] | [6M]  |
| 9  | a) | Write the difference between String and StringBuffer classes.  | [L4][CO2] | [6M]  |
|    | b) | Write a java program to sort the given names into ascending order.   | [L6][CO2] | [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 and the third thread displays Welcome every three seconds. | [L6][CO4] | [12M] |

**UNIT-IV**  
**GENERIC & INTRODUCING FILE HANDLING**

|    |    |  |           |       |
|----|----|--|-----------|-------|
| 1  | a) | Define Generics. Explain the importance of generics in java  | [L2][CO4] | [4M]  |
|    | b) | Develop with an Example program on Generics in java.   | [L6][CO5] | [8M]  |
| 2  |    | Illustrate General form of Generic class with an example.  | [L3][CO4] | [12M] |
| 3  | a) | List out and Describe about collection class in java.  | [L2][CO4] | [6M]  |
|    | b) | Establish the following concepts with java programs<br>a) Array list b) TreeSet c) LinkedHashMap                 | [L3][CO5] | [6M]  |
| 4  | a) | Write short notes on collection interfaces and their methods   | [L6][CO4] | [6M]  |
|    | b) | Establish the following interfaces with java programs<br>a) The Collection Interface b) The Set c) The Map.Entry | [L3][CO5] | [6M]  |
| 5  |    | Write a program illustrating following framework.<br>a)Vector<br>b)Array List<br>c)Hash Table<br>d)Stack         | [L6][CO4] | [12M] |
| 6  |    | Explain about various stream classes in java.  | [L2][CO4] | [12M] |
| 7  |    | Discuss about the File Input Stream and File Output Stream in java with examples.                                | [L1][CO4] | [12M] |
| 8  | a) | How to create a file in java with example.   | [L6][CO4] | [6M]  |
|    | b) | How to Write and Read a file in java with an example.  | [L3][CO4] | [6M]  |
| 9  |    | Explain File handling using File class.  | [L2][CO4] | [12M] |
| 10 | a) | Write a java Program to read from a file using FileReader class?   | [L6][CO4] | [8M]  |
|    | b) | Explain File operations in java?   | [L2][CO4] | [4M]  |

**UNIT-V**  
**INTRODUCING THE AWT & JAVA8 FEATURES**

|           |    |  |           |       |
|-----------|----|--|-----------|-------|
| <b>1</b>  |    | Write a java Program to design Simple Registration page window using AWT Controls.                         | [L6][CO5] | [12M] |
| <b>2</b>  |    | Write a java Program to implement an AWT based calculator with basic operations.                           | [L6][CO6] | [12M] |
| <b>3</b>  | a) | State the features of swing in java.   | [L1][CO5] | [4M]  |
|           | b) | Difference between AWT and SWING?  | [L4][CO6] | [8M]  |
| <b>4</b>  |    | List out the steps for creating simple Login Page using java swing with an example.                        | [L6][CO5] | [12M] |
| <b>5</b>  |    | What is Swing? Discuss about Swing controls.   | [L2][CO5] | [12M] |
| <b>6</b>  | a) | Give the importance of Lambda Expression with syntax   | [L1][CO6] | [6M]  |
|           | b) | Create a java program to pass multiple parameters with Lambda Expression                                   | [L6][CO5] | [6M]  |
| <b>7</b>  |    | List and Explain Java Method References with an example.   | [L2][CO5] | [12M] |
| <b>8</b>  | a) | Explain java date and Time with an example.  | [L2][CO5] | [8M]  |
|           | b) | Illustrate the operations on Streams.  | [L3][CO5] | [4M]  |
| <b>9</b>  |    | Explain the following methods in java.<br>a) Default method<br>b) Static method<br>c) forEach() method     | [L2][CO5] | [12M] |
| <b>10</b> | a) | Illustrate with an example to explain the similarities for method reference operator and Lambda Expression | [L3][CO5] | [6M]  |
|           | b) | Explain Reference to an instance method of an arbitrary object of a particular type                        | [L2][CO5] | [6M]  |

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