1702IT402–JAVA PROGRAMMING				
Academic Year :	2019-2020	**Question Bank**	Programme	B. Tech – Information Technology
Year / Semester :	II / IV		Course Coordinator	LAVANYA R

Course Objectives	Course Outcomes:
1. Enable learners to write Java programming using Object Oriented Programming Concepts 2. Develop Java programming using Event Driven and Strings 3. Familiar with Swings concepts using Java 4. Learn to think Java program using real time concepts and paradigms	After completion of the course, Student will be able to CO1: Understand the basic concepts of Java Programming CO2: Develop Java program using classes, objects, and Encapsulation CO3: Design Inheritance and Interface using Java CO4: Implement Event Handler, JDBC and Exception Handling concepts using Java CO5: Create real time application using Java

PART – A (2 Mark Questions With Key)				
S.No	**Questions**	**Mark**	**COs**	**BTL**
UNIT I – CLASSES AND OBJECTS				
1	**What is meant by Object Oriented Programming?** ● Method of programming in which programs are organized as cooperative collections of objects	2	1	K1
2	**What is meant by class and object?** **Class:** ● A template for a set of objects that share a common structure and a common behavior **Object:** ● An instance of a class. ● It has state, behaviour and identity	2	2	K1
3	**Difference between C++ and JAVA** **C++** ● Platform Dependent ● Support pointer, goto statement, multiple inheritance **JAVA** ● Platform independent ● Does not Support pointer, goto statement, multiple inheritance	2	1	K2
4	**What are the core OOP's concepts?** ● Abstraction, Encapsulation, Inheritance and Polymorphism are the core OOP's concepts.	2	1	K1
5	**What is meant by Encapsulation?**			

	● Process of compartmentalizing the elements of an abstraction that defines the structure and behavior	2	2	K1
6	**What are methods and how are they defined?** ● Methods are functions that operate on instances of classes in which they are defined. Objects can communicate with each other using methods and can call methods in other classes	2	2	K1
7	**What gives java it's "write once and run anywhere" nature?** ● All Java programs are compiled into class files that contain bytecodes. ● These bytecodes can be run in any platform and hence java is said to be platform independent.	2	1	K1
8	**Differentiate constructor and destructor?** ● Constructor is an operation that creates an object and/or initializes its state. ● Destructor is an operation that frees the state of an object and/or destroys the object itself. In Java, there is no concept of destructors. Its taken care by the JVM.	2	2	K2
9	**What is the difference between constructor and method?** ● Constructor will be automatically invoked when an object is created whereas method has to be called explicitly	2	2	K2
10	**In Java, How to make an object completely encapsulated?** ● All the instance variables should be declared as private and public getter and setter methods should be provided for accessing the instance variables.	2	2	K1
11	**List any four javadoc multiline comments** ● @author ● @param ● @return ● @exception	2	1	K1
12	**What is the purpose of javadoc multiline comment** ● Used to document all java source code	2	1	K1
13	**What is the purpose of final keyword** ● Used to avoid further modification of a variable, method or class	2	2	K1
14	**Difference between static and non-static variable** ● **Static variable**- Shared among all instance of classes ● **Non-static** – specific to single instance of that class	2	1	K2
15	**Why java does not support destructors and how does finalize method help in garbage collection** ● Java has in built mechanism of cleaning up called garbage collection which automatically deallocates the memory of unused variables. So no there is no need of destructor Finalization cleaning up the native resources before the objects are garbage collected	2	1	K1
16	**What is meant by access specifier? List its types** It control access to data fields, methods and classes ● Public	2	1	K1

	● Private ● Default			
17	**Write a java program to find the area of a rectangle using constructor** ● Program	2	2	K2
18	**Write a java program to find whether the given number is even or odd** ● program	2	2	K2
19	**Write a java program to find the largest of three numbers** ● program	2	2	K2
20	**How dynamic initialization is achieved in java** ● Variables are allowed to get initialized at run time	2	2	K1
UNIT II – ARRAYS, STRINGS, INHERITANCE				
1	**What is an Array? List its types** ● Array – Similar Data items collection, representation of data in single variable. **Types of array** ● Single dimensional array and ● Multi-dimensional array	2	3	K1
2.	**How to create one dimensional array?Give example** ● **Syntax:** data type array_name []=new datatype[size]; ● **Example** Int a[]=new int[10];	2	3	K1
3.	**What is meant by string? Give an example for string declaration** ● Collection of characters ● **Eg:** String s=”hello”	2	3	K1
4	**Write a java program to concatenate two strings** program	2	3	K2
5	**What is meant by string tokenizer?** ● Helps to separate out the tokens from the input string	2	3	K1
6	**L:ist out the types of inheritance which are supported in java** ● Single Inheritance ● Multilevel Inheritance ● Hybrid Inheritance	2	3	K1
7	**What is meant by I/O stream in JAVA** ● The **java.io** package contains nearly every class you might ever need to perform input and output (I/O) in **Java**. ● All these **streams** represent an input source and an output destination.	2	3	K1
8	**What is the difference between Array and vector?** ● Array - set of related data type and static ● vector - growable array of objects and dynamic	2	3	K2
9	**Is String is data type?** ● String in Java is not a primitive data type like int, long or	2	3	K1

	double. ● String is a class or in more simple term a user defined type ● String is defined in java.lang package and wrappers its content in a character array.			
10	**How is polymorphism achieved in java?** ● Inheritance, Overloading and Overriding are used to achieve Polymorphism in java.	2	3	K1
11	**What is the meant by Inheritance and what are its advantages?** ● Inheritance is the process of inheriting all the features from a class, that is taking some properties from the parent	2	3	K1
	The advantages of inheritance are ● Reusability of code ● Code sharing ● Information hiding Rapid Prototyping			
12	**How to prevent Inheritance?** ● If we declare particular class as final then no class can be derived from it	2	3	K1
13	**What are interface and its use?** ● Interface is similar to a class which may contain method's signature only but not bodies and it is a formal set of method and constant declarations that must be defined by the class that implements it. **Interfaces are useful for:** ● Declaring methods that one or more classes are expected to implement ● Capturing similarities between unrelated classes without forcing a classrelationship. ● Determining an object's programming interface withoutrevealing the actual body of the class.	2	3	K1
14	**Difference between method overriding and method overloading** **Method overriding** ● Subclass inherits the methods of super class and sometimes it modifies the implementation of a method defined ion super class **Method overloading** ● Many methods having the same function name. but can pass different number/types of parameters	2	3	K2
15	**What is meant by Polymorphism?** ● Taking more than one form. ● Polymorphism is a characteristic of being able to assign a different behavior or value in a subclass, to something that was declared in a parent class.	2	3	K1
16	**What is meant by abstract class** ● Super class is so general and less specific that it does nothing. But list out only the common features of other classes. Such a super class is called abstract class	2	3	K1
17	**Name some important input and output streamclasses**	2	3	K1

	Input streamclasses ● FileInputStream ● FilterInputStream **Output streamclasses** ● FileOutputStream ● FilterInputStream			
18	**Why is multiple inheritance using a classes a disadvantage in java?** ● The child class is derived from two or more parent classes which leads to ambiguity when two base classed implement a method with same name	2	3	K1
19	**Is there any error in the given java statement? Justify your answer char[ ] string="abcdef";** ● Yes the statement will show the error "Incompatible types" due to double quote declaration. The correct statement is Char[ ]string={'a','b','c','d','e','f'};	2	3	K2
20	**Write a java program to print the numbers from 1 to 10 using an array** ● Program	2	3	K2
21	**Write a java program to check the palindrome of a given string** ● Program	2	3	K2
22	**What are the two ways to create a string** ● String literal ● Using new keyword	2	3	K1
UNIT III– EVENT DRIVEN PROGRAMMING				
1	**What is a package?How to declare it?** A collection of classes, Methods and interfaces that provides a high-level layer of access protection and name space management **Declaration syntax**: Package package name	2	4	K1
2	**List out the usage of Java packages.** ● To organize files when a project consists of multiple modules. ● It also helps resolve naming conflicts when different packages have classes with the same names. ● Allow to protect the data from being used by the non-authorized classes.	2	4	K1
3	**Mention the necessity of import statement? Give Example** ● It is used to refer classes and methods that are present in particular package ● **Example** Import java .io.* ● Allow to use useful functionalities for performing input and output operation	2	4	K1
4	**Draw the life cycle of an applet? and List out its stages** Diagram	2	4	K1

	● Initialization state ● Running state ● Display state ● Idle state ● Dead state			
5	**What is AWT** Abstract Window Toolkit A class library which contains classes and interfaces that are required for graphical programming	2	4	K1
6	**How to run the applet** ● Using web browser ● Using Applet viewer	2	4	K1
7	**What are the advantages of event delegation model** Allows clear separation between components and design Accelerate the performance of application in which multiple events are used	2	4	K1
8	**What is an exception?** An event, which occurs during the execution of a program that disrupts the normal flow of the program's instructions.	2	4	K1
9	**Mention the different ways to generate an Exception?** ● Exceptions can be generated by the Java run-time system. Exceptions thrown by Java relate to fundamental errors that violate the rules of the Java language or the constraints of the Java execution environment. ● Exceptions can be manually generated by the code. Manually generated exceptions are typically used to report some error condition to the caller of a method.	2	4	K1
10	**Difference between AWT and swing** **AWT** ● Heavy weight component ● Occupies more memory space **Swing** ● Light weight component ● Occupies less memory space	2	4	K2
11	**What is Jpanel object** ● Subclass of Jcomponent ● It is a general purpose container on which various controls can be added	2	4	K1
12	**Listanyfour features of swing not present in JAVA** ● It has rich set of GUI components ● It has not pluggable look and feel support ● Can create it as an applet and run it in browser ● Support for data transfer is built in to swing and work between swing components with in an application, between java application and between java and native applications	2	4	K1

13	**List out some swing components** ● Abstract button ● JApplet ● JLabel ● JSlider ● JTextField ● JCombobox	2	4	K1
14	**Write an applet program to print "Hello world" using applet tag** Program	2	4	K2
15	**How frames are created in java?** ● By extending frame class ● By using instance of frame class	2	4	K1
16	**What is the use of canvas** It is created on frames and Used for drawing the graphical components such as oval,line…	2	4	K1
17	**What is meant by adapter classes** ● A class in java hat implements an interface with a set of dummy methods ● Eg: Container adapter, Mouse adapter	2	4	K1
18	**What is meant by Event class and Event object** ● **Event class**- classes responsible for handling events in event handling mechanism ● **Event Object**- In java event is represented as object	2	4	K1
19	**What s meant by Model View Controller** |It separate software components in to three distinct pieces ● Model –stores the content ● View – displays the content and ● Controller- managing the user interaction with the model	2	4	K1
20	**Write a java program for arithmetic exception** Program	2	4	K2
21	**List out some in built exception in java** ● Arithmetic exception ● IO Exception ● ArrayindexOutofBound Exception ● NullPonter exception	2	4	K1
UNIT 4 - CONNECTIVITY				
1	**How servlet works?** The server checks if the servlet is requested for the first time. **If yes,** web container ● loads and instantiates the servlet class. ● calls the init method passing the ServletConfig object **else** ● calls the service method passing request and response objects ● The web container calls the destroy method when it needs to remove the servlet such as at time of stopping server or undeploying the project.	2	5	K1

2	**Write a simple servlet program to display “welcome”** Program	2	5	K2
3	**Difference between servlet and CGI** **Servlet** ● portable and efficient. ● sharing of data is possible. ● directly communicate with the web server. ● handle the cookies. **CGI** ● not portable ● sharing of data is not possible. ● cannot directly communicate with the web server. ● cannot handle the cookies	2	5	K2
4	**What is a Servlet?** Servlet is ● A technology which is used to create a web application. ● An API that provides many interfaces and classes including documentation. ● A class that extends the capabilities of the servers and responds to the incoming requests. It can respond to any requests. ● A web component that is deployed on the server to create a dynamic web page	2	5	K1
5	**List out some Servlet APIs** ● javax.servlet(Basic) ● javax.servlet.http(Advance)	2	5	K1
6	**What are the advantages of JSP over Servlet** ● Easy to maintain ● Fast Development: No need to recompile and redeploy ● Less code than Servlet ● Extension to servlet	2	5	K1
7	**What are the steps involved in life cycle of JSP** ● Tanslation of JSP Page ● Compilation of JSP Page ● Classloading (the classloader loads class file) ● Instantiation (Object of the Generated Servlet is created). ● Initialization (the container invokes jspInit() method). ● Request processing (the container invokes _jspService() method). ● Destroy (the container invokes jspDestroy() method).	2	5	K1
8	**Create a simple JSP page to print hello world** Program	2	5	K2
9	**Difference between multi-threading and multiprocessing** **Multi threading** ● Multiple parts of single program gets executed ● Cost effective ● Processor switches between multiple threads of a program **Multiprocessing** ● Multiple programs gets executed	2	5	K2

	● Cost expensive ● Processor switches between multiple programs or processes			
10	**Draw the life cycle of servlet** Diagram	2	5	K1
11	**Difference between thread and process** **Thread** ● Light weight process ● Does not require separate memory address for its execution **Process** ● Heavy weight process ● require separate memory address for its execution	2	5	K2
12	**Draw the lifecycle of a thread along with its sates** Diagram Different states are ● New ● Runnable ● Waiting ● Timed waiting ● Blocked ● terminated	2	5	K1
13	**How threads are executed?** ● Using Thread class ● Using Runnable interface	2	5	K1
14	**What is meant by thread synchronization** Process of ensuring one access at a time by one thread is called thread synchronization	2	5	K1
15	**What is meant by multithreading** An environment in which multiple threads are created and they execute simultaneously	2	5	K1
16	**What is JDBC driver? List its types** JDBC Driver is a software component that enables Java application to interact with the database. There are 4 types of JDBC drivers: ● JDBC-ODBC bridge driver ● Native-API driver (partially java driver) ● Network Protocol driver (fully java driver) ● Thin driver (fully java driver)	2	5	K1
17	**What are JDBC statements? Mention its types** In JDBC, Statements are used to send SQL commands to the database and receive data from the database. There are various methods provided by JDBC statements such as execute(), executeUpdate(), executeQuery, etc. which helps you to interact with the database. There is three type of JDBC statements ● **Statement**-Statement is the factory for resultset. It is used for general purpose access to the database. It executes a static SQL query at runtime	2	5	K1

	● **PreparedStatement-** used when we need to provide input parameters to the query at runtime. ● **CallableStatement** - used when we need to access the database stored procedures. It can also accept runtime parameters.			
18	**What is the difference between Java script and Java** **Java script** ● Scripting language ● Variables need not be declared before their use **Java** ● Programming language ● Strongly typed language and type checking is done at compile time	2	5	K2
19	**What are the uses of Java script** ● Used to create cookies ● Can get embedded in XHTML ● Used as an alternate to Java applet ● Used to validate the data	2	5	K1
20	**What is JSTL** JSP Standard Tag Library is a library of predefined tags that ease the development of JSP.	2	5	K1
21	**What are the three tags used in JSP bean development** ● jsp:useBean ● jsp:setProperty ● jsp:getProperty	2	5	K1
22	**Why should we use JDBC** We can use JDBC API to handle database using Java program and can perform the following activities: 1. Connect to the database 2. Execute queries and update statements to the database 3. Retrieve the result received from the database.	2	5	K1

PART – B (12 Mark Questions with Key)				
S.No	**Questions**	**Mark**	**COs**	**BTL**
UNIT I – CLASSES AND OBJECTS				
1	**Explain the basic concept of Object Oriented Programming**		1	K2
	Explanation about ● Object ● Class ● Inheritance ● Polymorphism ● Abstraction ● Encapsulation	2 2 2 2 2 2 2		
2	**Explain with example about Constructor and its types**		2	K2
	Constructor - Introduction and rules	3		
	Default constructor with example program	4		
	Parameterized constructor with example program	5		
3	**Describe the concept of Class, Object and Methods in Java with suitable example program**		2	K2
	Class ,Object and Methods - syntax and Description	6		
	Example Java Program	6		
4	**Create a class called math techniques that support the following constant and methods** **i) Pi-3.14159** **ii) Area of rectangle that passed height and weight** **iii) Perimeter of rectangle that passed height and weight** **iv) Area of circle that passed radius** **v) Perimeter of a circle that passed radius**		2	K3
	Program	12		
5	**Explain in detail about Encapsulation with an example and list its benefits**		2	K2
	Encapsulation-Description with example	8		
	Benefits of Encapsulation ● The fields of a class can be made read-only or write-only. ● A class can have total control over what is stored in its fields.	4		
6.a	**Write a Java program for finding the area of a rectangle using parameterized constructor**		2	K2
	program	6		
6.b	**Write a Java program for copy constructor**			
	program	6	2	K2
7.a	**Write a Java program for computing Fibonacci series**		1	K2
	Program	6		
7.b	**Write a Java program for swapping two numbers**		2	K2
	Program	6		

UNIT II – ARRAYS, STRINGS, INHERITANCE				
1	**Write a java Program for Matrix Operations**			
	● Java Program for matrix addition, subtraction and multiplication using	12		

<table>
<tr><td></td><td>switch case</td><td></td><td>3</td><td>K2</td></tr>
<tr><td>2</td><td>Write a Java program with base class Teacher and a sub class PhysicsTeacher. Class PhysicsTeacher extends the designation and college properties and work() method from base class. But the collegeName, designation and work() method which are common to all the teachers</td><td>12</td><td>3</td><td>K3</td></tr>
<tr><td></td><td>● Program</td><td></td><td></td><td></td></tr>
<tr><td>3</td><td>Explain in detail about Interfaces in Java with example</td><td></td><td></td><td></td></tr>
<tr><td></td><td>● Interface- Definition and syntax</td><td>3</td><td></td><td></td></tr>
<tr><td></td><td>● Description</td><td>3</td><td>3</td><td>K2</td></tr>
<tr><td></td><td>● Example program</td><td>6</td><td></td><td></td></tr>
<tr><td>4</td><td>Describe about one dimensional array and two dimensional array in detail with appropriate examples</td><td></td><td>3</td><td>K2</td></tr>
<tr><td></td><td>One dimensional array-
● syntax with Description</td><td>3</td><td></td><td></td></tr>
<tr><td></td><td>● Example</td><td>3</td><td></td><td></td></tr>
<tr><td></td><td>Two dimensional array
● syntax with Description</td><td>3</td><td></td><td></td></tr>
<tr><td></td><td>● Example</td><td>3</td><td></td><td></td></tr>
<tr><td>5.a</td><td>Write a Java program for Binary search</td><td></td><td>3</td><td>K2</td></tr>
<tr><td></td><td>Program</td><td>6</td><td></td><td></td></tr>
<tr><td>5.b</td><td>Write a Java program for Bubble sort</td><td></td><td></td><td></td></tr>
<tr><td></td><td>Program</td><td>6</td><td></td><td></td></tr>
<tr><td>6</td><td>Write a program to create interface method named customer. In this the method called information(), show() and also maintain the tax rate. Implement the interface in employee class and calculate the tax of the employee based on their income
<table>
<tr><th rowspan="2">income</th><th colspan="2">Tax percentage</th></tr>
<tr><th>Male</th><th>Female</th></tr>
<tr><td>>=1,90,000</td><td>nil</td><td>nil</td></tr>
<tr><td>>=2,00,222</td><td>10%</td><td>nil</td></tr>
<tr><td>>=5,00,000</td><td>20%</td><td>10%</td></tr>
<tr><td><5,00,000</td><td>25%</td><td>20%</td></tr>
</table>
Program</td><td>12</td><td>3</td><td>K3</td></tr>
<tr><td>7</td><td>Describe about Polymorphism and its types with an appropriate examples</td><td></td><td></td><td></td></tr>
<tr><td></td><td>● Polymorphism-Introduction</td><td>2</td><td>3</td><td>K2</td></tr>
<tr><td></td><td>Types
● Run time polymorphism with an example</td><td>5</td><td></td><td></td></tr>
<tr><td></td><td>● Compile time polymorphism with an example</td><td>5</td><td></td><td></td></tr>
</table>

UNIT III – EVENT DRIVEN PROGRAMMING				
1	**What is meant by package? Explain with an example program and its necessary steps**		4	K2
	Package -definition and syntax	3		
	Steps for creating and accessing the package	4		
	Example Program	5		
2.	**Explain about the Exception in detail with example**		4	K2
	Description about Exception and its types ● IO exception ● SQL exception ● Classnotfound exception ● Runtime exception – (arithmetic, nullpointer, Numberformat exception) ● IndexoutofBound exception	6		
	Example	6		
3.a	**Write a applet program to add an image in to the web page**		4	K2
	Program	6		
3.b	**Explain about the lifecycle of an applet ?**			
	Life cycle diagram and Description about ● Initialization state ● Running state ● Display state ● Idle state ● Dead state	6		
4	**Write a Program using swing to create a phonebook look up application which displays the phone number for the person selected**		4	K2
	Program	12		
5	**What is Event handling in Java? Explain in detail**		4	K2
	Event Delegation model- ● Event classes - Description ● Event Listener- Description ● Handling event Description ● Adapter classes- Description	4 4 4 4		
6	**Write a Java code to simulate the way a stack mechanism works with exception handling, throwing the exception such as stack is full or stack is empty**		4	K2
	Program	12		
UNIT IV – CONNECTIVITY				
1	**Explain about thread model in detail with an example**		5	K2
	Using thread class, Example	6		
	Using Runnable interface, Example	6		
2	**Write a Java program to create a table" Studentdetails" and insert the fields roll number and name with JDBC connectivity**		5	
	Program	12		
3.a	**Write a JSP to accept user name and then welcome the user by name**		5	K2
	Program	6		
3.b	**Explain about Servlet life cycle in detail with an example**			
	Explanation about servlet Life cycle and its methods	3		

	• init • Service • destroy			
	Example	3		
4	**Write a Java program for generating 4 threads to perform** • **Getting N numbers as input** • **Printing the numbers divisible by 5** • **Printing prime numbers** • **Com[putting the average**		4	K3
	Program	12		
5.a	**Explain in detail about DOM model in Java script**			
	• DOM model • DOM tree • Element access using DOM	6		
5.b	**Write a java script for verifying the form with two labels "enter the password" and "re-enter the password" and two Button "submit" and "reset"**			
	Java script	6		
6	**Explain about JSP Directive and Action elements in detail**			
	Directive element- Description	4	4	K2
	Action Element Description about • Standard action • Custom action • JSTL	8		

PART – C (20 Mark Questions with Key)				
S.No	**Questions**	**Mark**	**COs**	**BTL**
UNIT I – INTRODUCTION				
1	**Explain in detail about various operators supported in Java with suitable examples**		1	K2
	Arithmetic operators- ● Description ● example program	5		
	Relational operators ● Description ● example program	5		
	Logical operators ● Description ● example program	5		
	Assignment operators ● Description ● example program	5		
2	**Describe about various control statements in Java**		1	K2
	Description with syntax about ● if statement with an example	4		
	● if else statement with an example	4		
	● Switch statement with an example	4		
	● for loop with an example	4		
	● While statement with an example	4		
3	**Describe with appropriate example about Methods in java and its types in detail**		2	K2
	Methods- Syntax with description	5		
	Types: **Description with example about** ● Method without parameter and not returning value ● Method with parameter ● Method with parameter and returning value	5 5 5		
UNIT II – ARRAYS, STRINGS, INHERITANCE				
1	**Explain about inheritance and its types with an example**		3	K2
	Inheritance-Definition	2		
	Single Inheritance ● Description ● Example	3 3		
	Multilevel Inheritance ● Description ● Example	3 3		
	Hierarchical Inheritance ● Description ● Example	3 3		
2	**Describe about various input and output streams and their classes**			
	● I/O handling using byte stream	10		

	● I/O handling using character stream	10		
3	**Explain any four methods available in string handling with an example**			
	● int length() – returns string length ● Example	5		
	● String toLowercase()- returns a string in lower case ● Example	5		
	● string compareTo() -method compares the given string with current string ● Example	5		
	● String concat(string str) – concatenates the specified strings ● Example	5		
UNIT III – EVENT DRIVEN PROGRAMMING				
1	**Explain about AWT in detail**	20	4	K2
	Abstract Window Toolkit ● Introduction **AWT Controls** ● Button ● Canvas ● Scrollbar ● Checkbox **Layout managers and menus** ● Flow layout ● Border layout ● Grid layout ● Card layout	4 8 8		
2	**Draw the Swing class component hierarchy and Explain any 4 swing components with an example**		4	K2
	● Hierarchy diagram **Swing class- Description with example** ● Button group ● JApplet ● JCheckbox ● JTextfield	4 4 4 4 4		
3	**Explain in detail about handling Mouse and Keyboard events with example**		4	K2
	Mouse events **Description about** ● mouseClicked() ● mousePressed() ● mouseReleased() ● mouseEntered() ● mouseExited() with example	10		
	Keyboard events **Description about** ● keyPressed() ● keyReleased()	10		

	• keyTyped() with example			

UNIT IV – CONNECTIVITY				
1	**Write a Java script for a simple online shopping application(assume your own data)**			
	Java script	20	4	K3