SRM VALLIAMMAI ENGINEERING COLLEGE

SRM Nagar, Kattankulathur – 603 203

DEPARTMENT OF
COMPUTER SCIENCE AND ENGINEERING

QUESTION BANK

VII SEMESTER

1904010 –OBJECT ORIENTED PROGRAMMING

Regulation – 2019

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ODD SEMESTER

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SUBJECT :1904010- OBJECT ORIENTED PROGRAMMING

SEM/YEAR : VII / IV

UNIT I –INRODUCTION TO OOPS AND JAVA FUNDAMENTALS			
Object Oriented Programming - Abstraction – objects and classes - Encapsulation- Inheritance - Polymorphism- OOP in Java – Characteristics of Java – The Java Environment - Java Source File - Structure – Compilation. Fundamental Programming Structures in Java – Defining classes in Java – constructors, methods -access specifiers - static members -Comments, Data Types, Variables, Operators, Control Flow, Arrays , Packages - JavaDoc comments.			
	PART-A		
Q.No	**Questions**	**BT Level**	**Competence**
1	Express what is meant by Object Oriented Programming.	BTL 2	Understand
2	Compare class and object.	BTL 4	Analyze
3	List the core OOP's concepts.	BTL 1	Remember
4	Tabulate the difference between C++ and Java.	BTL 1	Remember
5	Discuss what is meant by abstraction.	BTL 2	Understand
6	Describe about Encapsulation, Inheritance and Polymorphism.	BTL 2	Understand
7	Point out the justification of the statement "Java is platform independent".	BTL 4	Analyze
8	Express a Java programming structure to display "Hello World".	BTL 2	Understand
9	List the various access specifiers supported by OOPS.	BTL 1	Remember
10	Illustrate constructors in Java.	BTL 3	Apply
11	Create a simple Java Program to find the given number is Prime or not.	BTL 6	Create
12	Evaluate the characteristics of objects.	BTL 5	Evaluate
13	Assess with example what is meant by parameter passing constructor.	BTL 6	Create
14	Quote the purpose of finalize methods.	BTL 1	Remember
15	List out the type of Arrays.	BTL 1	Apply
16	Show the working of Java Virtual Machine (JVM).	BTL 3	Remember
17	Define static variable and static method.	BTL 1	Remember

18	Explain what is meant by Java package.	BTL 4	Analyze
19	Infer how to import a single package.	BTL 3	Apply
20	Summarize any four Java doc comments	BTL 5	Evaluate
21	Give integer data types in java.	BTL 2	Understand
22	Evaluate Byte code? What is JVM and JIT?	BTL 5	Evaluate
23	Write a java program using control flow statements.	BTL 3	Apply
24	Differentiate break and continue statements.	BTL 4	Analyze

PART – B

1	Explain in detail about the different features of Object Oriented Programming.	(13)	BTL 5	Evaluate
2	(i)What is class? How do you define a class in Java? (ii)Examine the use of inheritance in OOPs with an example.	(7) (6)	BTL 1	Remember
3	Describe the following in detail (i)Data Abstraction and encapsulation. (ii)Polymorphism and dynamic binding.	 (7) (6)	BTL 1	Remember
4.	Describe in detail about the control flow statements in Java with suitable examples.	(13)	BTL 1	Remember
5	What is meant by constructor? Discuss the types of constructor with an example.	(13)	BTL 2	Understand
6	(i)Analyze and Develop a simple Java program to sort the given numbers in increasing order. (ii)Write a Java program to reverse the given number.	(7) (6)	BTL 4	Analyze
7	(i) Illustrate the characteristics of Java in detail. (ii) Show with an example the structure of Java Program	(8) (5)	BTL 3	Apply
8	(i)Summarize about access specifier in Java. (ii)Describe the term static fields and methods and explain its types with example.	(7) (6)	BTL 2	Understand
9	(i) Define Arrays. Explain it with an example program. (ii)Describe variables and operators in Java.	(8) (5)	BTL 1	Remember
10	Illustrate what is meant by package? How its types are created and implemented in Java.	(13)	BTL 3	Apply
11	Write the techniques to design classes in Java using JavaDoc.	(13)	BTL 6	Create
12	Explain packages in Java with an example.	(13)	BTL 4	Analyze
13	Discuss about the two-dimensional array with example program.	(13)	BTL 2	Understand
14	Illustrate the Program structure of Java in detail with an example program.	(13)	BTL 3	Apply
15	Discuss the following: (i) Control flow statements in Java. (ii) Data types in Java.	 (7) (6)	BTL 2	Understand
16	Explain with the help of a program how object oriented programming overcomes the shortcomings of procedure oriented programming.	(13)	BTL 5	Evaluate
17	Write a simple Java program to implement basic Calculator operations.	(13)	BTL 4	Analyze

PART - C				
1	Develop a Java application to generate Electricity bill. Create a class with the following members: Consumer no., consumer name, previous month reading, current month reading, type of EB connection (i.e domestic or commercial). Compute the bill amount using the following tariff. If the type of the EB connection is domestic, calculate the amount to be paid as follows: i. First 100 units - Rs. 1 per unit ii. 101-200 units - Rs. 2.50 per unit iii. 201 -500 units - Rs. 4 per unit iv. > 501 units - Rs. 6 per unit	(15)	BTL 6	Create
2	Evaluate a Java program to find a smallest number in the given array by creating one dimensional array and two dimensional array using new operator.	(15)	BTL 5	Evaluate
3	Explain and write Java Program to find the largest of three numbers using Ternary Operator and smallest of three numbers using Ternary Operator.	(15)	BTL 5	Evaluate
4	Develop a Java application with Employee class with Emp_name, Emp_id, Address, Mail_id, Mobile_no as members. Inherit the classes, Programmer, Assistant Professor, Associate Professor and Professor from employee class. Add Basic Pay (BP) as the member of all the inherited classes with 97% of BP as DA, 10 % of BP as HRA, 12% of BP as PF, 0.1% of BP for staff club fund. Generate pay slips for the employees with their gross and net salary.	(15)	BTL 6	Create
5	Create a java program using local, static and instance variable with proper justification.	(15)	BTL 6	Create

UNIT II –INHERITANCE AND INTERFACES

Inheritance – Super classes- sub classes –Protected members – constructors in sub classes- the Object class – abstract classes and methods- final methods and classes – Interfaces – defining an interface, implementing interface, differences between classes and interfaces and extending interfaces- Strings

PART-A

Q.No	Questions	BTL Level	Competence
1	Examine the importance of inheritance.	BTL 3	Apply
2	Summarize the characteristics of constructor function.	BTL 4	Analyze
3	Show the use of default constructor.	BTL 3	Apply
4	Identify what are the two ways of using super keyword.	BTL 1	Remember
5	Can we instantiate an abstract class?	BTL 1	Remember
6	Give how protected members in a subclass can be accessed in Java.	BTL 2	Understand
7	Show what methods are provided by the object class.	BTL 3	Apply
8	Point out the conditions to be satisfied while declaring abstract classes.	BTL 4	Analyze
9	Give the use of final keyword.	BTL 2	Understand
10	Generalize what is protected visibility.	BTL 6	Create
11	Define interface and write the syntax of the interface	BTL 1	Remember

12	Compose what is Dynamic Binding.	BTL 6	Create
13	Assess what is a cloneable interface and how many methods does it contain.	BTL 5	Evaluate
14	Describe whether you can have an inner class inside a method and what variables can you access.	BTL 1	Remember
15	Differentiate between abstract class and interface.	BTL 2	Understand
16	What is meant by object cloning?	BTL 1	Remember
17	Give the role of clone() method in Java.	BTL 2	Understand
18	Point out what are inner class and anonymous class.	BTL 4	Analyze
19	List out the rules in defining abstract classes.	BTL 1	Remember
20	Summarize any two string handling methods in Java.	BTL 5	Evaluate
21	Define nested interface with an example	BTL 2	Understand
22	How will you find out the length of a string in java? Give an example?	BTL 4	Analyze
23	Write a java program to compare two strings.	BTL 5	Evaluate
24	Show the structure of hierarchical inheritance in java.	BTL 3	Apply
	PART-B		
1	(i)Describe in detail about inheritance. (7) (ii)Write a program for inheriting a class. (6)	BTL 2	Understand
2	(i)Illustrate what is super and subclass in Java. (7) (ii)With an example, illustrate how the objects from sub class are inherited by the super class. (6)	BTL 3	Apply
3	Examine how to control top level and member level access for the members of the class with an example. (13)	BTL 1	Remember
4	Design with an example how passing objects as parameters to methods and returning objects from methods in Java. (13)	BTL 6	Create
5	Describe in brief about object class and its methods in Java with suitable example. (13)	BTL 1	Remember
6	(i)Discuss the concept of abstract class. (7) (ii)Give a program for abstract class with example. (6)	BTL 2	Understand
7	(i) Explain briefly on final keyword. (7) (ii)Explain the concept of final class with an example. (6)	BTL 4	Analyze
8	(i)Describe in detail about interface. (7) (ii)How is interface declared and implemented in Java? Give example. (6)	BTL 1	Remember
9	(i) Differentiate classes with interface with suitable examples. (8) (ii) Express in detail about object cloning. (6)	BTL 2	Understand
10	Discuss the implementation of method overloading and overriding with an example program. (13)	BTL 1	Remember
11	Explain the multilevel inheritance in java with suitable example program. (13)	BTL 5	Evaluate
12	Define multiple inheritance and implement the multiple inheritance in Java. (13)	BTL 4	Analyze
13	Illustrate with an example, how string objects are created. How it can be modified? (13)	BTL 3	Apply
14	Illustrate String handling class in Java with example. (13)	BTL 3	Apply
15	Explain briefly about final methods and classes. (13)	BTL 5	Evaluate

16	Point out the difference between single, Multilevel and Hierarchical inheritance.	(13)	BTL 4	Analyze
17	(i) Discuss about protected members in Java with example. (ii) Explain in detail about method overriding in java with an example.	(7) (6)	BTL 2	Understand
	PART – C			
1	Develop a Library interface which has drawbook(), returnbook() (with fine), checkstatus() and reservebook() methods. All the methods are tagged with public in the following ways: a. Using draw book() - get the required book based on title b. Using checkstatus – user book returned date details c. Using with fine() – whether failed to return the book within a time period charge -Rs.5/day d. Using reserve book() – block or reserve particular book for their account.	(15)	BTL 6	Create
2.	Assess and write an inheritance hierarchy for classes Quadrilateral, Trapezoid, Parallelogram, Rectangle and Square. Use Quadrilateral as the superclass of the hierarchy. Specify the instance variable and methods for each class. The private instance variables of Quadrilateral should be the x-y coordinate pairs for the four end points of the quadrilateral. Write a program that instances objects of your classes and outputs each objects area(except Quadrilateral)	(15)	BTL 5	Evaluate
3	Consider a class student .Inherit this class in UG Student and PG Student. Also inherit students into local and non-local students. Define five Local UG Students with a constructor assuming all classes have a constructor.	(15)	BTL 5	Evaluate
4	Develop a Java Program to create an abstract class named Shape that contains two integers and an empty method named print Area(). Provide three classes named Rectangle, Triangle and Circle such that each one of the classes extends the class Shape. Each one of the classes contains only the method print Area () that prints the area of the given shape.	(15)	BTL 6	Create
5	Develop a java program to perform the following operations. a. Find the string index. b. Compare two strings. c. Retrieve the single character from sting. d. Find the substring of the given string. e. Split the string.	(15)	BTL 6	Create

UNIT III-EXCEPTION HANDLING AND I/O			
Exceptions - exception hierarchy- throwing and catching exceptions – built-in exceptions, creating own exceptions, Stack Trace Elements. Input / Output Basics – Streams – Byte streams and Character streams – Reading and Writing Console – Reading and Writing Files			
PART-A			
Q.No	**Questions**	**BT Level**	**Competence**
1	Interpret what is an Exception. What is its use?	BTL 2	Understand
2	Predict what function does terminate and unexpected handlers call.	BTL 2	Understand
3	What is re-throwing an expression?	BTL 1	Remember
4	Define uncaught exception.	BTL 1	Remember
5	Summarize the task performed by exception handling.	BTL 2	Understand
6	Differentiate exception and error	BTL 2	Understand
7	Classify the exception types with example	BTL 4	Analyze
8	Draw the exception hierarchy.	BTL 5	Evaluate
9	What are the two methods available in stack trace elements?	BTL 1	Remember
10	Formulate the advantages of using exception handling.	BTL 6	Create
11	What are three types of I/O streams?	BTL 1	Remember
12	Show what is the purpose of the finally clause of a try-catch-finally statement?	BTL 3	Apply
13	Explain how to create custom exception.	BTL 4	Analyze
14	List the any five-byte stream class.	BTL 1	Remember
15	Illustrate any four character stream class.	BTL 3	Apply
16	Point out the syntax of buffered reader to connect to the keyboard	BTL 4	Analyze
17	What are streams? What are their advantages?	BTL 1	Remember
18	Write a Java program to demonstrate the use of readline method.	BTL 3	Apply
19	Develop a Java application using a printwriter class to handle console output.	BTL 6	Create
20	Generate a Java program to create a tiny editor.	BTL 5	Evaluate
21	Point out the use of write() method in Printstream Class.	BTL 4	Analyze
22	How to create a BufferReader object?	BTL 5	Evaluate
23	Give the methods defined in the file class.	BTL 2	Understand
24	Show how java handle integer overflow and underflow.	BTL 3	Apply
PART – B			
1	Discuss in detail about exception handling constructs and write a program to illustrate Divide by zero exception. (13)	BTL 2	Understand
2	Describe the following concepts with example (i) Try-catch-throw paradigm. (7) (ii)Exception specification. (6)	BTL 1	Remember
3	Describe about the syntax of catch and re-throw an exception with an example (13)	BTL 1	Remember
4	Explain on stack trace elements give example. (13)	BTL 4	Analyze
5	Tabulate any five classes to support exception handling in Java with an example for each. (13)	BTL 1	Remember
6	Summarize what is finally class. How to catch exception? Write an example. (13)	BTL 2	Understand

7	Analyze the following in detail with example program (i) Checked Exception. (7) (ii) Unchecked exception. (6)	BTL 4	Analyze
8	(i)Classify the errors and exception in Java. (7) (ii)Illustrate about multiple catching exceptions with example. (6)	BTL 3	Apply
9	Summarize the following with example program (i)Arithmetic exception. (5) (ii)Array out of bound exception. (4) (iii)String index out of bound exception. (4)	BTL 5	Evaluate
10	(i)Develop a program to read and count the characters from files. (7) (ii)Develop a Java program to transfer the content of one file to another file. (6) (6)	BTL 6	Create
11	Discuss briefly about the features (i) Byte streams input/output. (7) (ii)Character streams input/output. (6)	BTL 2	Understand
12	Explain the following with example (i)Reading console input. (7) (ii)Writing console output. (6)	BTL 4	Analyze
13	(i)Describe a Java program to read characters from the console. (7) (ii)write a Java program to read strings from the console. (6)	BTL 1	Remember
14	Illustrate in brief about (i)Reading from a file. (7) (ii)Writing in a file. (6)	BTL 3	Apply
15	How to create user defined exception in java. Explain it with an example (13)	BTL 5	Evaluate
16	Demonstrate the different ways to read and write to console in java (13)	BTL 3	Apply
17	(i) Describe the exception hierarchy in java. (8) (ii)Discuss any five built exception in java. (5)	BTL 2	Understand
	PART - C		
1	Develop a Java program to implement user defined exception handling. (15)	BTL 6	Create

2	(i) Custom exception has been created in the code given below. (15)
	Correct and evaluate the code
	Class myexception extends Exception
	{
	Myexception(string s)
	{
	super(s)
	}
	}
	Class excep
	{
	Public static void main(String args[])
	{‘ if(args[0]== “Hello”)
	System.out.println(“String is right”);
	else
	try
		BTL 5	Evaluate

	{
	Throw new myexception("Invalid string");
	}
	Catch(myexception ex)
	{
	System.out.println(ex.gemessage());
	}
	}
	}
	ii.The program calculates sum of two numbers inputted as command-line arguments.When will it give an exception?
	Class execp
	{
	Public static void main(String []args)
	{
	try{
	int n= Integer.parseInt(arg[0]);
	int n1=Integer.parseInt(arg[1]);
	int n2=n+n1;
	System.out.println("Sum is:" +n2);
	}
	Catch(NumberFormatException ex)
	{
	System.out.println(ex);
	}
	}
	}			

3	Develop the Java program to concatenate the two files and produce the output in the third file.	(15)	BTL 6	Create
4	Construct a Java program that reads a file name from the user, displays information about whether the file exists, whether the file is readable, or writable, the type of file and the length of the file in bytes.	(15)	BTL 5	Evaluate
5	Explain in detail about input and outstream of java in detail with examples.	(15)	BTL 5	Evaluate

UNIT - IV

Differences between multi-threading and multitasking, thread life cycle, creating threads, synchronizing threads, Inter-thread communication, daemon threads, thread groups.

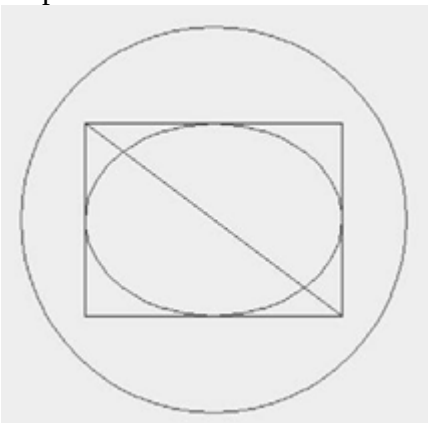
PART-A

Q.No	Questions	BT Level	Competence
1	Give the properties of thread.	BTL 2	Understand
2	Show the different states in thread.	BTL 3	Apply
3	Why synchronization is required in thread?	BTL 1	Remember
4	Analyze any four thread constructor.	BTL 4	Analyze
5	What is the need for thread?	BTL 1	Remember
6	List the importance of thread constructor.	BTL 1	Remember
7	Give the idea to achieve thread synchronization in Java.	BTL 2	Understand

8	Define multithreading.	BTL 1	Remember
9	Give the life cycle of thread.	BTL 2	Understand
10	Show how do we set priorities for threads.	BTL 3	Apply
11	Evaluate the methods related to Daemon thread.	BTL 5	Evaluate
12	What is the use of notify methods in multithreading?	BTL 1	Remember
13	Generalize some real life situations that illustrate the use of multithreading.	BTL 6	Create
14	Assess why do we need run() and start() method in Thread handling? Can ,we achieve it with only run method.	BTL 5	Evaluate
15	What are the parts of synchronizers that are often needed?	BTL 1	Remember
16	Give the methods used for inter thread communication.	BTL 2	Understand
17	Classify what are three ways in which a thread can enter the waiting state.	BTL 4	Analyze
18	Generalize what is daemon thread and which method is used to create the daemon thread.	BTL 6	Create
19	Differentiate between yielding and sleeping.	BTL 4	Analyze
20	Illustrate what is thread group.	BTL 3	Apply
21	Show how the interthread communication is done.	BTL 3	Apply
22	Analyze the use of notify and notifyAll() methods in java.	BTL 4	Analyze
23	Give the constructors of ThreadGroup Class.	BTL 2	Understand
24	Compare the Daemon threads and non-Daemon threads.	BTL 5	Evaluate
	PART - B		
1	Describe in detail about multithread programming with example. (13)	BTL 1	Remember
2	(i)Differentiate multithreading and multitasking. (7) (ii)Describe the properties of thread in detail. (6)	BTL 2	Understand
3	Summarize the two types of thread implementation supported by Java. Give example. (13)	BTL 2	Understand
4	(i)Illustrate the concept of synchronization in thread. (7) (ii)Write a Java code for reader writers problem. (6)	BTL 3	Apply
5	Describe how to implement runnable interface for creating and starting threads with an example program. (13)	BTL 1	Remember
6	(i)Explain what is inter-thread communication? List out the methods used for it. (7) (ii)Explain inter-thread communication using producer consumer problem. (6)	BTL 4	Analyze
7	Summarize the following (i)Thread priorities. (7) (ii)Daemon thread. (6)	BTL 5	Evaluate
8	Explain the following (i)States of a thread with a neat diagram. (7) (ii)Explain how threads are created in Java. (6)	BTL 4	Analyze
9	Develop a program to create threads in java by extending thread class. (13)	BTL 6	Create
10	Describe the lifecycle of thread in Java with an example (13)	BTL 1	Remember
11	(i)Analyze Daemon thread and its properties. (7) (ii)Write a program to implement the Daemon thread. (6)	BTL 4	Analyze
12	Describe the Concept of thread group class and its methods with (13	BTL 1	Remember

	an example program.			
13	Illustrate thread synchronization in detail with an example program.	(13)	BTL 3	Apply
14	Summarize thread group. How to implement the thread group. Explain it with example.	(13)	BTL 2	Understand
15	Write a java Program to implement the producer consumer problem using synchronization.	(13)	BTL 3	Apply
16	Discuss the methods used for interthread communication with an example program.	(13)	BTL 2	Understand
17	Explain the multithreading and multitasking in java. Discuss the advantages and disadvantages of Multithreading in java.	(7) (6)	BTL 5	Evaluate
PART - C				
1	Generalize multithreading for an sample sequence of strings with a delay of 1000 millisecond for displaying it using Java threads.	(15)	BTL 6	Create
2	Construct a Java program to perform the following tasks using three different threads. Each thread will be responsible for its own task only. Among these three threads one will find the average number of the input numbers, one will be responsible for finding the Maximum number from the input array of numbers, and one will be responsible for finding the Minimum number from the input array of numbers.	(15)	BTL 5	Evaluate
3	Develop a Java Application to create a list of numbers and then sort in ascending order as well as descending order simultaneously.	(15)	BTL 6	Create
4	Write a Java program using the thread function yield(), stop() and sleep methods	(15)	BTL 5	Evaluate
5	Explain the concept of readers writers' problem and implement the concept using the suitable class and methods available in Java	(15)	BTL 5	Evaluate
UNIT - V				
Graphics programming - Frame – Components - working with 2D shapes - Using color, fonts, and images - Basics of event handling - event handlers - adapter classes - actions - mouse events - AWT event hierarchy.				
PART - A				
Q.No	**Questions**		**BT Level**	**Competence**
1	List out some system colors available in Java and their purpose.		BTL 1	Remember
2	Give the role of layout manager. Which layout is default in Java? Define Border layout.		BTL 2	Understand
3	Give the steps needed to show a Frame.		BTL 2	Understand
4	Analyze the function of i. Set Layout ii. Flow Layout		BTL 4	Analyze
5	List the various methods available for drawing polygons and ellipses.		BTL 1	Remember
6	Name any four event of a button component.		BTL 1	Remember
7	List the various mouse events supported by Java.		BTL 1	Remember

8	Select a suitable method can be used for changing case of characters.	BTL 5	Evaluate
9	Formulate the AWT Event class.	BTL 6	Create
10	Why AWT is platform independent?	BTL 4	Analyze
11	Generalize what is an event and what are the models available for event handling.	BTL 6	Create
12	List the difference between scrollbar and scroll pane.	BTL 1	Remember
13	Differentiate between a Choice and a List.	BTL 2	Understand
14	Quote how can you create your own GUI components.	BTL 1	Remember
15	Analyze what is the purpose of the enableEvents() method?	BTL 4	Analyze
16	Write a program to print the names of all fonts on your system.	BTL 3	Apply
17	Show the methods of frame class.	BTL 3	Apply
18	Construct the structure of AWT Event Hierarchy.	BTL 5	Evaluate
19	Give the useful methods of components class.	BTL 2	Understand
20	Show what method can be used for changing font of characters?	BTL 3	Apply
21	Express the different ways to create a GUI using frames in AWT.	BTL 2	Understand
22	Analyze the advantages of adapter class.	BTL 4	Analyze
23	Show any five events and its eventlistener.	BTL 3	Apply
24	How will you create TextArea object and TextField object?	BTL 5	Evaluate
	PART - B		
1	(i)Describe in detail about working with 2D shapes in Java. (7) (ii)Identify a Java program to illustrate Mouse Events. (6)	BTL 1	Remember
2	Describe the types of layout management in detail with an example. (13)	BTL 1	Remember
3	Summarize in detail about graphics programming. (13)	BTL 2	Understand
4	(i)Discuss how an application can respond to events in Java? Write the steps and the example. (7) (ii)Discuss the adapter class using example. (6)	BTL 2	Understand
5	What is meant by event handling? Analyze and write a simple calculator using mouse events that restrict only addition, subtraction, multiplication and division. (13)	BTL 4	Analyze
6	Discuss in detail about 2D Geometric primitives with an example program (13)	BTL 1	Remember
7	Illustrate what is layout management? State the various types of layout supported by Java? Which layout is default one? (13)	BTL 3	Apply
8	Evaluate with an example program and discuss in detail about Mouse listener and Mouse Motion Listener. (13)	BTL 5	Evaluate
9	(i) Formulate the methods available in graphics for COLOR. (7) (i) Design the methods available to draw shapes (6)	BTL 6	Create
10	Illustrate the Action lister with a suitable example program, (13)	BTL 3	Apply
11	(i) Explain on AWT Event Hierarchy (7) (ii)Explain about Semantic and Low-Level Events (6)	BTL 4	Analyze
12	Describe the creating Frame Window by initiating and extending frame class (13)	BTL 1	Remember
13	(i)Give the types of adjustment events in scrollbar. (7) (ii)Discuss and write a program to demonstrate the usage of Scroll bar. (6)	BTL 2	Understand

14	Examine the following in detail (i)Handling a Text Field. (7) (ii)Using a Text Area. (6)	BTL 3	Apply
15	Which steps are must for event handling and what are the models available for event handling. (13)	BTL 4	Analyze
16	Summarize the components class and clearly explain its various methods (13)	BTL 5	Evaluate
17	How applet differ from applications and explain the applet life cycle in brief. (13)	BTL 2	Understand
	PART - C		
1	Develop a Java program to implement the following (15) Create four check boxes. The initial state of the first box should be in checked state. The status of each check box should be displayed. When we change the state of a check box, the status should be displayed and updated.	BTL 6	Create
2	Develop a Java program to display the following picture as output. (15) 	BTL 6	Create
3	Construct a Java program for event handling using actionlistener interface (15) 	BTL 5	Evaluate
4	Write an AWT GUI Application. Each time the “Count” button is clicked, the counter value will be increased by 1. (15)	BTL 5	Evaluate
5	Develop a java program to implement a 3 frame in a window .In each frame create rectangle and fill each with color, texture and gradient (15)	BTL 6	Create