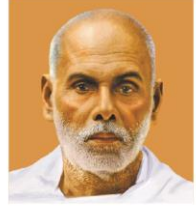


# **Sree Narayana Guru College of Engineering & Technology**

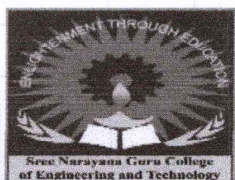
CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307



## **INTERNAL EXAM - QUESTION PAPER AND ANSWER KEY**

Name: .....

Roll No:- .....



## **SREE NARAYANA GURU COLLEGE OF ENGINEERING**

### **& TECHNOLOGY,**

Series Test	1	Academic Year / Semester	2022-23 / S3
Subject name with code	CST 205 OBJECT ORIENTED PROGRAMMING USING JAVA	Branch	CSE
Date of Exam	08/11/2022	Duration	120 mins
Starting time	9:30AM	Max. Marks	50

### **PART A**

**<MAX MARKS : 15>**

Q.No		Marks	CO	Level
1	Why the "main" method in Java is qualifies as public, static, void?	3	I	1
2	What is a class diagram? Sketch an UML class diagram for Online Movie Ticket Booking System.	3	I	1
3	How Array and Vector Class differ from each other in Java? Justify your answer.	3	II	1
4	List out the different datatypes in Java. Give example for each.	3	II	1
5	Define Package and Interface in java.	3	III	1

### **PART B**

**<MAX MARKS: 35>**

6	a	Show an UML Activity diagram for Food Ordering Systems which shows flows between the activity Order, Delivery, Food Item, Category, Payment.	6	I	2
	b	Outline an automated fire alarm system and bring out the difference between function oriented software design approaches and object oriented software design approach.	8	I	2

**OR**

7	a	Summarize the buzzwords of Java that defines the Java programming language.	5	I	2
	b	Demonstrate an interaction diagram for an order management system and differentiate the two types of interaction diagram based on it.	9	I	2

8	Extend the use of Looping statements in Java with examples.	14	II	2
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**OR**

9	a	Interpret the role of 'super and 'final' keyword in context with inheritance in Java with appropriate example.	5	II	2
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	b	Explain in detail various operators in java with appropriate examples.	9	II	2
10		Illustrate a Java package named 'even package', with a class Even containing a static method that check whether a number is even or not, and returns that information. Import this package in another class and use to check a number is even or not.	7	III	2
<b>OR</b>					
11		Elaborate the visibility of all Access Specifiers available in Java with respect to: same class, same package sub-class, same package non sub-class, different package sub-class, different package non sub-class.	7	III	2

### **CO - Course Outcome [CO]**

**CO I:** To introduce basic concepts of object oriented design techniques and to understand the basis of java language.

**CO II:** To get thorough knowledge of java languages and to utilize the features of java like datatypes, operators, control statements etc and how to use the object oriented concepts -classes, objects, constructors, data hiding, inheritance and polymorphism.

**CO III:** To understand the utilization of built in packages & interfaces and to illustrate how robust programs can be written in Java using exception handling mechanism, Input /Output Streams and Files in Java to develop programs

### **LEVEL - Bloom's Taxonomy Level**

**Level 1: REMEMBERING**

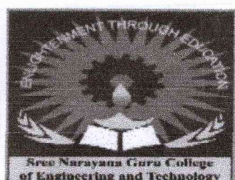
**Level 2: UNDERSTANDING**

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Name: .....

Roll No:- .....

**SREE NARAYANA GURU COLLEGE OF ENGINEERING****& TECHNOLOGY,****Answer Key /Valuation Scheme**

Series Test	1(Scheme)	Academic Year / Semester	2022-23 / S3
Subject name with code	CST 205 OBJECT ORIENTED PROGRAMMING USING JAVA	Branch	CSE
Date of Exam	8/11/2022	Duration	120 mins
Starting time	9:30 am	Max. Marks	50

**PART A****<MAX MARKS : 15>**

Q.No		Marks	CO	Level
1	Why the "main" method in Java is qualifies as public, static, void.  <b>Explanation for public, static, void keywords – 1 mark each</b>	3	I	1
2	What is a class diagram? Sketch an UML class diagram for Online Movie Ticket Booking System.  <b>Class Diagram-1mark, Class diagram for banking system-2 marks.</b>	3	I	1
3	How Array and Vector Class differ from each other in Java? Justify your answer.  <b>Any 3 points-3 marks.</b>	3	II	1
4	List out the different datatypes in Java. Give example for each.  <b>Listing -1 mark, Example for each datatypes-2 marks.</b>	3	II	1
5	Define Package and Interface in java.  <b>Definition -1.5 marks each</b>	3	III	1

**PART B****<MAX MARKS: 35>**

6	a	Show an UML Activity diagram for Food Ordering Systems which shows flows between the activity Order, Delivery, Food Item, Category, Payment.  <b>Activities -2.5 marks, Activity Diagram -3.5 marks.</b>	6	I	2
	b	Outline an automated fire alarm system and bring out the difference between function oriented software design approaches and object oriented software design approach.  <b>Figure- 2 marks, Explanation and Difference-6 marks.</b>	8	I	2



OR					
7	a	Summarize the buzzwords of Java that defines the Java programming language.  <b>Any 5 java buzzwords in detail -5 marks.</b>	5	I	2
	b	Demonstrate an interaction diagram for an order management system and differentiate the two types of interaction diagram based on it.  <b>Diagram -3 marks, types-1mark, Explanation-5marks.</b>	9	I	2
8		Extend the use of Looping statements in Java with examples.  <b>3 Loop statements with syntax/flowchart-6 marks, Example for each-8 marks</b>	14	II	2
OR					
9	a	Interpret the role of 'super and 'final' keyword in context with inheritance in Java with appropriate example.  <b>Explanation for each keyword -2 marks, Example for each -3 marks.</b>	5	II	2
	b	Explain in detail various operators in java with appropriate examples.  <b>Listing - 1 mark, Explanation -4 marks ,Example-4marks.</b>	9	II	2
10		Illustrate a Java package named 'even package', with a class Even containing a static method that check whether a number is even or not, and returns that information. Import this package in another class and use to check a number is even or not.  <b>Package creation- 2 marks, logic -1.5 marks, Program-3.5 marks.</b>	7	III	2
OR					
11		Elaborate the visibility of all Access Specifiers available in Java with respect to: same class, same package sub-class, same package non sub-class, different package sub-class, different package non sub-class.  <b>Table of Access Specifiers-7 marks.</b>	7	III	2

#### CO - Course Outcome [CO]

**CO I:** To introduce basic concepts of object oriented design techniques and to understand the basis of java language.

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**CO II:** To get thorough knowledge of java languages and to utilize the features of java like datatypes, operators, control statements etc and how to use the object oriented concepts -classes, objects, constructors, data hiding, inheritance and polymorphism.

**CO III:** To understand the utilization of built in packages & interfaces and to illustrate how robust programs can be written in Java using exception handling mechanism, Input /Output Streams and Files in Java to develop programs

**LEVEL - Bloom's Taxonomy Level**

**Level 1:** REMEMBERING

**Level 2:** UNDERSTANDING



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Name: .....

Roll No:- .....

**SREE NARAYANA GURU COLLEGE OF ENGINEERING****TECHNOLOGY, KANNUR**

Series Test	2	Academic Year / Semester	2022-23 / S3
Subject name with code	CST 205 OBJECT ORIENTED PROGRAMMING USING JAVA	Branch	CSE
Date of Exam	13/12/2022	Duration	120 mins
Starting time	9:30AM	Max. Marks	50

<b>PART A</b>		<b>&lt;MAX MARKS : 15&gt;</b>		
Q.No		Marks	CO	Level
1	Compare byte stream and character stream related classes in Java.	3	III	2
2	Show the life cycle of thread showing the different states and method involved in it.	3	IV	2
3	Contrast the difference between String and String Buffer class in Java with an example.	3	IV	2
4	Name any three Swing Layout Managers in java and point out their uses in GUI.	3	V	1
5	List out the features of Swing API.	3	V	1
<b>PART B</b>		<b>&lt;MAX MARKS: 35&gt;</b>		
6	Explain in detail exceptions and various exceptions handling keyword in Java with examples.	7	III	2
<b>OR</b>				
7	Extend the features of files in java with appropriate file handling operations.	7	III	2
8	Summarize different string comparison methods of String class with appropriate examples.	14	IV	2
<b>OR</b>				
9	Demonstrate the event handling mechanism in java using the Delegation Event Model with list of source events and corresponding event listener interfaces.	14	IV	2
10	Illustrate the steps to establish database connectivity in java with a sample code.	14	V	2
<b>OR</b>				
11	Outline a java program to illustrate the use of JTextField, JFrame and JLabel.	14	V	2

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**CO - Course Outcome [CO]**

**CO III:** To understand the utilization of built in packages & interfaces and to illustrate how robust programs can be written in Java using exception handling mechanism, Input / Output Streams and Files in Java to develop programs.

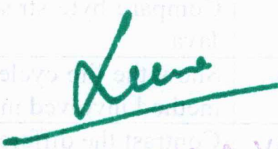
**CO IV:** To provide basic exposure for the application of programs in java using string handling mechanism, multithreading, collection framework and event handling mechanisms.

**CO V:** To impart the techniques creating GUI based applications and database connectivity.

**LEVEL - Bloom's Taxonomy Level**

**Level 1: REMEMBERING**

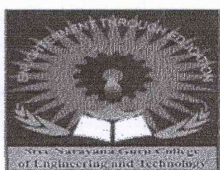
**Level 2: UNDERSTANDING**

  
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**KANNUR**



Name: .....

Roll No:- .....

**SREE NARAYANA GURU COLLEGE OF ENGINEERING****& TECHNOLOGY, KANNUR****Valuation Scheme/Answer Key**

Series Test	2(Scheme)	Academic Year / Semester	2022-23 / S3
Subject name with code	CST 205 OBJECT ORIENTED PROGRAMMING USING JAVA	Branch	CSE
Date of Exam	13/12/2022	Duration	120 mins
Starting time	9:30AM	Max. Marks	50

**PART A****<MAX MARKS : 15>**

Q.No		Marks	CO	Level
1	Compare byte stream and character stream related classes in Java. <b>Comparison 3 key points-3 marks.</b>	3	III	2
2	Show the life cycle of thread showing the different states and method involved in it. <b>Diagram-1.5marks, Explanation-1.5 marks</b>	3	IV	2
3	Contrast the difference between String and String Buffer class in Java with an example. <b>Comparison 3 key points-3 marks.</b>	3	IV	2
4	Name any three Swing Layout Managers in java and point out their uses in GUI. <b>Listing – 1.5 marks, Use-1.5 marks.</b>	3	V	1
5	List out the features of Swing API. <b>Any 6 Features – 3 marks.</b>	3	V	1

**PART B****<MAX MARKS: 35>**

6	Explain in detail exceptions and various exceptions handling keyword in Java with examples. <b>Definition-1 mark, Types-1 marks, Keywords &amp; Its examples-5 marks.</b>	7	III	2
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**OR**

7	Extend the features of any two file handling operations in java with appropriate examples for each. <b>List out – 1 mark , Explanation – 3 marks each.</b>	7	III	2
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8	Summarize different string comparison methods of String class with appropriate examples. <b>Methods with Syntax-4 marks. Example -10 marks each.</b>	14	IV	2
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**OR**

9	Demonstrate the event handling mechanism in java using the Delegation Event Model with list of source events and corresponding event listener interfaces.	14	IV	2
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	<b>Definition-1.5 marks, Figure-1.5 marks, Explanation-6 marks, Source of events – 2.5 marks , Event Listener Interface-2.5marks.</b>			
10	Illustrate the steps to establish database connectivity in java with a sample code. <b>Steps – 3 marks, Explanation-5 marks, Sample Code - 6 marks.</b>	14	V	2
<b>OR</b>				
11	Outline a java program to illustrate the use of JTextField, JFrame and JLabel. <b>Syntax- 2 marks , Logic – 5marks ,Program-7 marks</b>	14	V	2

### **CO - Course Outcome [CO]**

**CO III:** To understand the utilization of built in packages & interfaces and to illustrate how robust programs can be written in Java using exception handling mechanism, Input / Output Streams and Files in Java to develop programs.

**CO IV:** To provide basic exposure for the application of programs in java using string handling mechanism, multithreading, collection framework and event handling mechanisms.

**CO V:** To impart the techniques creating GUI based applications and database connectivity.

### **LEVEL - Bloom's Taxonomy Level**

**Level 1: REMEMBERING**

**Level 2: UNDERSTANDING**

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Name: .....

Roll No:- .....



**SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY,**

<i>Series Test</i>	<b>RETEST</b>	<i>Academic Year/Semester</i>	<b>2022-23 / S3</b>
<i>Subject name with code</i>	<b>CST 205 OBJECT ORIENTED PROGRAMMING USING JAVA</b>	<i>Branch</i>	<b>CSE</b>
<i>Date of Exam</i>	<b>05/01/2023</b>	<i>Duration</i>	<b>120 mins</b>
<i>Starting time</i>	<b>9:30 AM</b>	<i>Max. Marks</i>	<b>50</b>

<b>PART A</b>		<b>&lt;MAX MARKS : 15&gt;</b>		
<i>Q.No</i>		<i>Marks</i>	<i>CO</i>	<i>Level</i>
1	Summarize the buzzwords of Java that defines the Java programming language.	3	I	2
2	Contrast the difference between checked exception and unchecked exception.	3	III	2
3	Define packages and interfaces.	3	II	1
4	Name any three Swing Layout Managers in java and point out their uses in GUI.	3	V	1
5	List out the features of Swing API.	3	V	1
<b>PART B</b>		<b>&lt;MAX MARKS:35&gt;</b>		
6	Outline an automated fire alarm system and bring out the difference between function oriented software design approaches and object oriented software design approach.	7	I	2
<b>OR</b>				
7	Show an UML interaction diagram for Food Ordering Systems which shows flows between the activity Order, Delivery, Food Item, Category, Payment.	7	I	2
8	Explain in detail exceptions and various exceptions handling keyword in Java with appropriate java programs.	14	III	2
<b>OR</b>				
9	Elaborate the visibility of all Access Specifiers available in Java with respect to: same class, same package sub-class, same package non sub-class, different package sub-class, different package non sub-class.	14	III	2
10	Illustrate the steps to establish database connectivity in java with a sample code.	14	V	2
<b>OR</b>				



11	Outline a java program to illustrate the use of JTextField, JFrame and JLabel.	14	V	2
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**CO - Course Outcome [CO]**

**CO I:** To introduce basic concepts of object oriented design techniques and to understand the basis of java language.

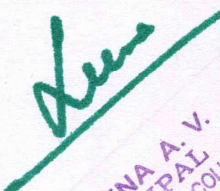
**CO III:** To understand the utilization of built in packages & interfaces and to illustrate how robust programs can be written in Java using exception handling mechanism, Input/ Output Streams and Files in Java to develop programs.

**CO V:** To impart the techniques creating GUI based applications and database connectivity.

**LEVEL - Bloom's Taxonomy Level**

**Level 1:** REMEMBERING

**Level 2:** UNDERSTANDING

  
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Name: .....

Roll No:- .....



**SREE NARAYANA GURU COLLEGE OF ENGINEERING  
& TECHNOLOGY,**

**VALUATION SCHEME/ANSWER KEY**

Series Test	RETEST(SCHEME)	Academic Year/Semester	2022-23 / S3
Subject name with code	CST 205 OBJECT ORIENTED PROGRAMMING USING JAVA	Branch	CSE
Date of Exam	05/01/2023	Duration	120 mins
Starting time	9:30AM	Max. Marks	50

PART A		<MAX MARKS : 15>		
Q.No		Marks	CO	Level
1	List out the buzzwords of Java that defines the Java programming language. <b>List out all the buzzwords of java- 3 marks.</b>	3	I	2
2	Contrast the difference between checked exception and unchecked exception. <b>Difference – 3 marks.</b>	3	III	2
3	Define packages and interfaces. <b>Definition -1.5 marks each.</b>	3	III	1
4	Name any three Swing Layout Managers in java and point out their uses in GUI. <b>Listing – 1.5 marks, Use-1.5 marks.</b>	3	V	1
5	List out the features of Swing API. <b>Any 6 Features – 3 marks.</b>	3	V	1
PART B		<MAX MARKS: 35>		
6	Interpret an automated fire alarm system and bring out the difference between function oriented software design approaches and object oriented software design approach. <b>Figure- 2 marks, Explanation and Difference-5 marks.</b>	7	I	2
OR				
7	Show an UML interaction diagram for Food Ordering Systems which shows flows between the activity Order, Delivery, Food Item, Category, Payment. <b>Figure- 2 marks, Explanation and Difference-5 marks.</b>	7	I	2
OR				
8	Explain in detail exceptions and various exceptions handling keyword in Java with appropriate java programs. <b>Definition-1 mark, Keywords &amp; syntax -5 Its example java programs- 8 marks.</b>	14	III	2
OR				
9	Elaborate the visibility of all Access Specifiers available in Java with respect to: same class, same package sub-class,	14	III	2

	same package non sub-class, different package sub-class, different package non sub-class. <b>Definition – 2 marks, Types – 1 mark, Explanation-4marks, Table of Access Specifiers-7 marks.</b>			
10	Illustrate the steps to establish database connectivity in java with a sample code. <b>Steps – 3 marks, Explanation-5 marks, Sample Code - 6 marks.</b>	14	V	2
<b>OR</b>				
11	Outline a java program to illustrate the use of JTextField, JFrame and JLabel. <b>Syntax- 2 marks , Logic – 5marks ,Program-7 marks.</b>	14	V	2

### **CO - Course Outcome [CO]**

**CO I:** To introduce basic concepts of object oriented design techniques and to understand the basis of java language.

**CO III:** To understand the utilization of built in packages & interfaces and to illustrate how robust programs can be written in Java using exception handling mechanism, Input/ Output Streams and Files in Java to develop programs.

**CO V:** To impart the techniques creating GUI based applications and database connectivity.

### **LEVEL - Bloom's Taxonomy Level**

**Level 1: REMEMBERING**

**Level 2: UNDERSTANDING**

  
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