J.B. INSTITUTE OF ENGINEERING & TECHNOLOGY

(AUTONOMOUS)

ACADEMIC YEAR **2013-14**

http://www.jbiet.edu.in

	COURSE PLAN	2013-14
		Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: K.Swathi
Designation: Asst.Profrssor
Department:: CSE

COURSE DETAILS

Name Of The Programme::	B.Tech	Batch::	12-16
Designation::	Asst.Professor		
Year	2013-14	Semester :	II yr-II sem
Department::	CSE		
Title of The Subject	Object Oriented Programming	Subject Code:	54014
No of Students	54		

	COURSE PLAN	2013-14
		Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: K.Swathi
Designation: Asst.Professor
Department:: CSE

1. TARGET

a) Percentage Pass: 80%

b) Percentage I class 60%

2. COURSE PLAN

(Please write how you intend to cover the contents: i.e., coverage of Units by lectures, guest lectures, design exercises, solving numerical problems, demonstration of models, model preparation, or by assignments, etc.)

1. More no of Examples
2. Assignments
3. Tests
4. Best utilization of lab

3. METHOD OF EVALUATION

3.1. ☐ Continuous Assessment Examinations (CAE 1, CAE 2)

3.2. ☐ Assignments / Seminars

3.3. ☐ Mini Projects

3.4. ☐ Quiz

3.5. ☐ Term End Examination

3.6. ☐ Others

4. List out any new topic(s) or any innovation you would like to introduce in teaching the subject in this Semester.

- Making the students to think beyond languages and making them understand that java is a paradigm that helps manage complexity involved in software.

Signature of HOD
Date:

Signature of Faculty
Date:

	GUIDELINES TO STUDY THE SUBJECT	2013-14
		Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: K.Swathi
Designation: Asst.Professor
Department:: CSE
Guidelines for Preparing the Course:

Course Description:
This course introduces computer programming using the JAVA programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre major and/or elective course requirement.

Course Objectives:
1. Understanding the fundamentals of programming such as variables condition and iterative executions, methods, etc. 2. Understanding the fundamentals of object oriented programming in java, including defining classes, invoking methods, using class libraries, etc. 3. Fine knowledge on important topics and principles of software development. 4. Developing the ability to write a program to solve specified problem. 5. Be able to use java SDK environment to create, debug and run simple java programs

Learning Outcomes:
1. Design, create, build, and debug Java applications and applets. 2. Apply algorithmic thinking to solve programming problems. 3. Implement syntax rules in Java programs. 4. Explain variables and data types used in program development. 5. Apply arithmetic operations for displaying numeric output. 6. Write and apply decision structures for determining different operations. 7. Write and apply loop structures to perform repetitive tasks. 8. Write user-defined methods. 9. Identify and implement arrays, array lists, and multidimensional arrays. 10. Write Java programs using object-oriented programming techniques including classes, objects, methods, instance variables, composition, inheritance, and polymorphism. 11. Write programs using graphical user interface (GUI) components and Java's Event Handling model

	COURSE OBJECTIVES	2013-14
		Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: K.Swathi
Designation: Asst.Professor
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On completion of this Subject / Course the student shall be able to:

S.No.	Objectives	Outcomes
1.	Examine the Java development environment, identify fundamentals of Java syntax, describe how to compile and run a simple Java application, Describe how to construct simple variables and arrays, expressions and control flow	
2.	Identify object-oriented programming concepts, describe how Java implements object-oriented programming, the structure of classes, how simple inheritance is used, class and variable access modifiers.	
3.	Describe how Java classes are organized into packages, estimate the lifetime of a Java object, difference between Java applications and applets	
4.	Identify how to create and use threads, exceptions, creating and using try, throw and catch blocks, assertions.	
5.	Describe how to construct a graphically-oriented interface in Java, Identify the classes that comprise the Abstract Windowing Toolkit and graphically-oriented Java Foundation Classes and how the event-listener mechanism handles events	
6.	Manipulate files, directories and their contents from within Java applications, open and close files from within a Java application, read and write files from within a Java application, using formatting specifies to construct custom output	
7.	Examine Java's networking classes, identify how to create client/server applications	
8.		

9.	Discuss Open Data Base Connectivity (ODBC, open, process and close a database connection from a Java application, read and write information between an ODBC database and a Java application, process information obtained from an ODBC database, handle errors encountered while an ODBC database is open,	
10.	Review key features of the Java language and development environment	

Signature of Faculty
Date:

Note: For each of the OBJECTIVE indicate the appropriate OUTCOMES to be achieved.
Kindly refer Page 16, to know the illustrative verbs that can be used to state the objectives.

	COURSE OUTCOMES	2013-14
		Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: K.Swathi
Designation: Asst.Professor
Department:: CSE

The expected outcomes of the Course / Subject are:

S.No.	General Categories of Outcomes	Specific Outcomes of the Course
A.	An ability to apply knowledge of mathematics, science, and engineering	
B.	An ability to design and conduct experiments, as well as to analyze and interpret data	
C.	An ability to design a system, component, or process to meet desired needs within realistic Constraints such as economic, environmental, social, political, ethical, health and safety, Manufacturability and sustainability	
D.	An ability to function on multi-disciplinary teams	
E.	An ability to identify, formulate, and solve engineering problems	
F.	An understanding of professional and ethical responsibility	
G.	An ability to communicate effectively	
H.	The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context	
I.	A recognition of the need for, and an ability to engage in life-long learning	
J.	A knowledge of contemporary issues	
K.	An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.	

Objectives – Outcome Relationship Matrix (Indicate the relationships by ☒ mark).

Objectives \ Outcomes	A	B	C	D	E	F	G	H	I	J	K
1.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
2.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
3.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
4.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
5.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
6.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
7.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
8.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
9.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
10.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

	COURSE SCHEDULE	2013-14
		Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: K.Swathi
Designation: Asst.Professor
Department:: CSE
The Schedule for the whole Course / Subject is:: 62

S. No.	Description	Duration (Date)		Total No. of Periods
		From	To	
1.	Object Oriented Thinking	04/12/13	11/12/13	6
2.	Java Basics	12/12/13	03/01/14	11
3.	Inheritance	04/01/14	17/01/14	7
4.	Packages and Interfaces	18/01/14	25/01/14	6
5.	Exception Handling	27/01/14	03/02/14	6
6.	Multithreading	04/02/14	15/02/14	9
7	Event Handling,	17/02/14	26/02/14	7
8	Applets,Swings	06/03/14	20/03/14	14

Total No. of Instructional periods available for the course: Hours / Periods

	SCHEDULE OF INSTRUCTIONS UNIT - I	2013-14 Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: K.Swathi
Designation: Asst.Professor
Department:: CSE
The Schedule for the whole Course / Subject is:: 62

Sl. No.		No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal…) Page No___ to ___
1	04/12/13	1	**Object oriented thinking** :- Need for oop paradigm, A way of viewing world – Agents, responsibility.	1,2	Understanding OOP with Java, updated edition, T. Budd.1-2
2	06/12/13	2	Messages, methods	1,2	2
3	07/12/13	3	classes and instances , class hierarchies (Inheritance)	1,2	2-3
4	08/12/13	4	method binding , overriding and exceptions	1,2	3-5
5	10/12/13	5	summary of oop concepts	1,2	5
6	11/12/13	6	coping with complexity, abstraction mechanisms.	1,2	5-7

Signature of Faculty
Date

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.

2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED **BOLDLY**.
3. MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.

	SCHEDULE OF INSTRUCTIONS **UNIT - II**	2013-14 Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: K.Swathi
Designation: Asst.Professor
Department:: CSE
The Schedule for the whole Course / Subject is:: 62

Sl. No.		No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal…) Page No___ to ___
1	12/12/13	1	**Java Basics** History of Java, Java buzzwords	3,4	The complete reference, 7th edition(1-12)
2	13/12/13	2	Java buzzwords, data types, variables	3,4	1-12,
3	14/12/13	3	scope and life time of variables, arrays	3,4	41-71
4	16/12/13	4	operators, expressions, control statements	3,4	73-126
5	17/12/13	5	control statements, type conversion and costing, simple java program	3,4	110,Link
6	19/12/13	6	classes and objects – concepts of classes, objects	3,4	129-151
7	20/12/13	7	constructors, methods, access control	3,4	145-150
8	21/12/13	8	this keyword, garbage collection, overloading methods and constructors	3,4	140-150
9	30/12/13	9	parameter passing, recursion	3,4	169-176
10	02/01/14	10	nested and inner classe	3,4	Link
11	03/01/14	11	exploring string class.	3,4	337-376

Signature of Faculty
Date

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.

2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED **BOLDLY**.

MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.

	SCHEDULE OF INSTRUCTIONS UNIT - III	2013-14 Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: K.Swathi
Designation: Asst.Professor
Department:: CSE
The Schedule for the whole Course / Subject is:: 62

Sl. No.		No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal…) Page No___ to ___
1	04/01/14	1	**Inheritance** –Hierarchical abstractions, Base class object, subclass	4,5	The complete reference, 7th edition(189-183)
2	06/01/14	2	subtype, substitutability	4,5	Link
3	07/01/14	3	forms of inheritance- specialization, specification, construction	4,5	Link
4	09/01/14	4	,extension, limitation, benefits of inheritance	4,5	Link
5	10/01/14	5	costs of inheritance. Member access rules, super uses	4,5	193,202
6	11/01/14	6	polymorphism- method overriding, using final with inheritance	4,5	219
7	17/01/14	7	abstract classes, the object class	4,5	216,220

Signature of Faculty
Date

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.

2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED **BOLDLY**.

MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.

	SCHEDULE OF INSTRUCTIONS UNIT - IV	2013-14 Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: K.Swathi
Designation: Asst.Professor
Department:: CSE
The Schedule for the whole Course / Subject is:: 62

Sl. No.		No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal…) Page No___ to ___
1	18/01/14	1	Packages and Interfaces : Defining, Creating and Accessing a Package	6,7	The complete reference, 7th edition(223-224)
2	20/01/14	2	Understanding CLASSPATH, importing packages	6,7	225
3	21/01/14	3	differences between classes and interfaces	6,7	Link
4	23/01/14	4	defining an interface , implementing interface	6,7	235
5	24/01/14	5	applying interfaces, variables in interface	6,7	239-246
6	25/01/14	6	Exploring packages – Java.io.	6,7	537-585

Signature of Faculty
Date

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.

2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED **BOLDLY**.

MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.

	SCHEDULE OF INSTRUCTIONS UNIT - V	2013-14 Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: K.Swathi
Designation: Asst.Professor
Department:: CSE
The Schedule for the whole Course / Subject is:: 62

Sl. No.		No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal…) Page No___ to ___
1	27/01/14	1	Exception handling - Concepts of exception handling	6,7	The complete reference(149-150)
2	29/01/14	2	benefits of exception handling, Termination or resumptive models	6,7	251
3	30/01/14	3	exception hierarchy, usage of try, catch	6,7	253-254
4	31/01/14	4	throw, throws and finally	6,7	260-263
5	01/01/14	5	built in exceptions, creating own exception sub classes	6,7	267-271
6	03/02/14	6	String Handling, Exploring java.util.	6,7	347-376,349

Signature of Faculty
Date

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.

2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED **BOLDLY**.

MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.

	SCHEDULE OF INSTRUCTIONS UNIT - VI	2013-14 Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: K.Swathi
Designation: Asst.Professor
Department:: CSE
The Schedule for the whole Course / Subject is:: 62

Sl. No.		No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal…) Page No___ to ___
1	04/02/14	1	Differences between multi threading and multitasking, thread life cycle	7,8	The complete reference
2	06/02/14	2	thread life cycle, creating threads	7,8	Link,276
3	07/02/14	3	creating threads, synchronizing threads	7,8	276,280-284
4	08/02/14	4	Thread Priorities	7,8	289
5	10/02/14	5	interthread communication	7,8	297
6	11/02/14	6	, daemon threads, thread groups. Enumerations	7,8	Link
7	13/02/14	7	thread groups. Enumerations	7,8	Link
8	14/02/14	8	autoboxing,	7,8	Link
9	15/02/14	9	autoboxing, annotations, generics.	7,8	Link

Signature of Faculty
Date

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.

2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED **BOLDLY**.

MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.

	SCHEDULE OF INSTRUCTIONS UNIT - VII	2013-14 Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: K.Swathi
Designation: Asst.Professor
Department:: CSE
The Schedule for the whole Course / Subject is:: 62

Sl. No.		No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal…) Page No___ to ___
1	17/02/14	1	Event Handling : Events, Event sources	8,9	The complete reference(653-656)
2	18/02/14	2	Event classes, Event Listeners	8,9	656-657
3	20/02/14	3	Delegation event model, handling mouse and keyboard events	8,9	673
4	21/02/14	4	Adapter classes, inner classes	8,9	680-684
5	22/02/14	5	The AWT class hierarchy, user interface components- labels	8,9	687
6	24/02/14	6	button, canvas, scrollbars, text components	8,9	691-693
7	24/02/14	7	check box, check box groups, choices, lists panels – scrollpane	8,9	683
8	25/02/14	8	dialogs, menubar, graphics, layout manager	8,9	705
9	26/02/14	9	layout manager types – boarder, grid	8,9	750
10	26/02/14	10	flow, card and grib bag	8,9	766

Signature of Faculty
Date

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.

2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED **BOLDLY**.

MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.

	SCHEDULE OF INSTRUCTIONS UNIT - VIII	2013-14 Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: K.Swathi
Designation: Asst.Professor
Department:: CSE
The Schedule for the whole Course / Subject is:: 62

Sl. No.		No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal…) Page No___ to ___
1	06/03/14	1	**Applets** – Concepts of Applets, differences between applets and applications		The complete reference(113)
2	07/03/14	2	cycle of an applet,	10,11	125
3	08/03/14	3	types of applets	10,11	116
4	10/03/14	4	creating applets	10,11	137
5	12/03/14	5	passing parameters to applets.	10,11	141
6	13/03/14	6	Swing – Introduction, limitations of AWT	10,11	156
7	14/03/14	7	MVC architecture, components	10,11	145
8	15/03/14	8	containers, exploring swing- JApplet	10,11	Link
9	17/03/14	9	JFrame and JComponent, Icons and Labels	10,11	Link
10	18/03/14	10	The JButton class, Check boxes, Radio buttons	10,11	399
11	20/03/14	11	Combo boxes, Tabbed Panes, Scroll Panes, Trees, and Tables.	10,11	387

Signature of Faculty
Date

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.

2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED **BOLDLY**.

MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.

	COURSE COMPLETION STATUS	2013-14
		Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: K.Swathi
Subject:: Object Oriented Programmin Subject Code5404
Department:: CSE

Actual Date of Completion & Remarks, if any

Units	Remarks	Nos. of Objectives Achieved
Unit 1	Good knowledge on oops concepts	
Unit 2	Basics of oops	
Unit 3	Able to acquire knowledge on Inheritance	
Unit 4	Learned how to use packages and interfaces	
Unit 5	Learned to throw exceptions	
Unit 6	Learned mulltithreading	
Unit 7	Good knowledge on Events	
Unit 8	Able to built an applet	

Signature of Dean of School
Date:

Signature of Faculty
Date:

NOTE: AFTER THE COMPLETION OF EACH UNIT MENTION THE NUMBER OF OBJECTIVES ACHIEVED.

	TUTORIAL SHEETS - I	2013-14
		Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: K.Swathi
Designation: Asst.Professor
Department:: CSE
The Schedule for the whole Course / Subject is:: 62

Date:

This Tutorial corresponds to Unit Nos.1,2,3 Time:

Q1. Explain the basic concepts of Object oriented programming

Q2.Briefly Explain Access specifies in java

Q3.Explain about array concepts in detail

Q4.Discuss in detail about forms of inheritance

Q5.Discuss in detail about final and super keyword in inheritance.

Please write the Questions / Problems / Exercises which you would like to give to the students and also mention the objectives to which these questions / Problems are related.

Signature of Dean of School
Date:

Signature of Faculty
Date:

	TUTORIAL SHEETS - II	2013-14
		Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: K.Swathi
Designation: Asst.Professor
Department:: CSE
The Schedule for the whole Course / Subject is:: 62

Date:

This Tutorial corresponds to Unit Nos.4,5,6 Time:

Q1.Discuss in detail about CLASSPATH

Q2. Explain checked & unchecked exceptions?

Q3. What is exception? What are the different types of exceptions?

Q4. Explain the following
i).dead lock ii) daemon thread iii) thread group iv) thread priorities

Q5. What is multithreading? Explain?

Please write the Questions / Problems / Exercises which you would like to give to the students and also mention the objectives to which these questions / Problems are related.

Signature of Dean of School
Date:

Signature of Faculty
Date:

	TUTORIAL SHEETS - II	2013-14
		Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: K.Swathi
Designation: Asst.Professor
Department:: CSE

Date:

This Tutorial corresponds to Unit Nos.7,8 Time:

Q1. Explain delegation event model?

Q2. Explain mouse events with e.g.?

Q3. What is an adapter class? Describe about various adapter classes in detail?

Q4. What is an adapter class? Describe about various adapter classes in detail?

Q5. .Describe about various components in swings

Please write the Questions / Problems / Exercises which you would like to give to the students and also mention the objectives to which these questions / Problems are related.

Signature of Dean of School
Date:

Signature of Faculty
Date:

	ILLUSTRATIVE VERBS FOR STATING INSTRUCTIONAL OBJECTIVES	2013-14 Regulation: R11

These verbs can also be used while framing questions for Continuous Assessment Examinations as well as for End – Semester (final) Examinations.

ILLUSTRATIVE VERBS FOR STATING **GENERAL OBJECTIVES**

Know Comprehend	Understand Apply	Analyze Design	Generate Evaluate

ILLUSTRATIVE VERBS FOR STATING **SPECIFIC OBJECTIVES:**

A. Cognitive Domain

1	2	3	4	5	6
Knowledge	**Comprehension Understanding**	**Application** of knowledge & comprehension	**Analysis** of whole w.r.t. its constituents	**Synthesis** combination of ideas/constituents	**Evaluation** judgement
Define	Convert	Change	Breakdown	Categorize	Appraise
Identify	Defend	Compute	Differentiate	Combine	Compare
Label	Describe (a	Demonstrate	Discriminate	Compile	Conclude
List	procedure)	Deduce	Distinguish	Compose	Contrast
Match	Distinguish	Manipulate	Separate	Create	Criticize
Reproduce	Estimate	Modify	Subdivide	Devise	Justify
Select	Explain why/how	Predict		Design	Interpret
State	Extend	Prepare		Generate	Support
	Generalize	Relate		Organize	
	Give examples	Show		Plan	
	Illustrate	Solve		Rearrange	
	Infer			Reconstruct	
	Summarize			Reorganize	
				Revise	

B. Affective Domain		**C. Psychomotor Domain (skill development)**				
Adhere	Resolve	Bend	Dissect	Insert	Perform	Straighten
Assist	Select	Calibrate	Draw	Keep	Prepare	Strengthen
Attend	Serve	Compress	Extend	Elongate	Remove	Time
Change	Share	Conduct	Feed	Limit	Replace	Transfer
Develop		Connect	File	Manipulate	Report	Type
Help		Convert	Grow	Move preciselyReset		Weigh
Influence		Decrease	Handle	Operate	Run	
Initiate		Demonstrate	Increase	Paint	Set	

	LESSON PLAN Unit-1	2013-14
		Regulation: R11

Name of the Faculty:: K.Swathi

Designation: Asst.Professor Subject Code 5404

Unit 1

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
1	Object oriented thinking :- Need for oop paradigm, A way of viewing world			
2	Agents, responsibility, messages, methods,			
3	classes and instances, class hierarchies (Inheritance			
4	method binding,			
5	overriding and exceptions, s			
6	summary of oop concepts			
7	coping with complexity,			
8	abstraction mechanisms			
9				
10				

On completion of this lesson the student shall be able to(Outcomes)

1.

2.

3.

4

	ASSIGNMENT **Unit-I**	2013-14 Regulation: R11

Assignment / Questions

1. Define a class? What is its importance in OOPs?
2. Define the following terms:
   i) Method binding.
   ii) Overriding.
   iii) Exception.
3. Explain 'Classes' and 'Objects' briefly.
4. What is an Object? How can you declare Objects? Explain with an example.
5. What are the four categories of visibility for class members?
6. Define a class? What is its importance in OOPs?
7. What is an Object? How can you declare Objects? Explain with an example.
8. What are the four categories of visibility for class members?

Signature of Faculty

Note: Mention for each question the relevant objectives and outcomes.

	LESSON PLAN **Unit-II**	2013-14 Regulation: R11

Name of the Faculty:: K.Swathi

Designation: Asst.Professor Designation: Asst.Professor

Unit 2

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
1	Java Basics History of Java, Java buzzwords, datatypes			
2	variables, scope and life time of variables, arrays,			
3	operators, expressions,			
4	control statements, type conversion and costing			
5	objects, constructors, methods, access control,			
6	this keyword, garbage collection, overloading			
7	access control, constructors			
8	parameter passing, recursion			
9	nested and inner classes, exploring string class.			

On completion of this lesson the student shall be able to

1.

2.

3.

4

	ASSIGNMENT **Unit-II**	2013-14 Regulation: R11

Assignment / Questions

1. Explain Decision control statements in Java? Mention their Syntaxes. Give an example for each.

2. What are the Relational operators in Java? Explain with an illustrative example

3(a) What is a constructor? What are its special properties?

(b) How do we invoke a constructor?

(c) What are objects? How are they created from a class?

4 Write a program that will compute the following series:

(a) 1/1 + 1 / 2 + 1/3 + :::::: + 1/n
(b) 1/1 + 1 / 2 + 1 / 2^2+ ::::::: + 1/2^n.

5 Explain Decision control statements in Java? Mention their Syntaxes. Give an example for each.

6 What is a constructor? What are its special properties?
(c) How do we invoke a constructor?

7 What are objects? How are they created from a class?

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Note: Mention for each question the relevant objectives and outcomes.

	LESSON PLAN **Unit-III**	2013-14 Regulation: R11

Name of the Faculty:: K.Swathi

Designation: Asst.Professor Designation: Asst.Professor

Unit 3

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
1	Hierarchical abstractions, Base class object,			
2	subclass, subtype, substitutability,			
3	forms of inheritance- specialization, specification			
4	construction, extension limitation, combination			
5	benefits of inheritance costs of inheritance			
6	Member access rules, super uses			
7	using final with inheritance			
8	polymorphism- method overriding,,			
9	abstract classes,the object class			

On completion of this lesson the student shall be able to(Outcomes)

1.

2.

3.

4

	ASSIGNMENT **Unit-III**	2013-14 Regulation: R11

Assignment / Questions

1. Explain the benefits of inheritance. How does java achieve it.
2. Explain the two different methods provided by the java language to support the idea of inheritance of specification.

3. Define simple inheritance. Explain with am example.
4 Explain the benefits of inheritance. How does java achieve it.
5 Explain the two different methods provided by the java language to support the idea of inheritance of specification.

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Note: Mention for each question the relevant objectives and outcomes.

	LESSON PLAN **Unit-IV**	2013-14 Regulation: R11

Name of the Faculty:: K.Swathi

Designation: Asst.Professor Designation: Asst.Professor

Unit 4

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
1	Defining, Creating and Accessing a Package			
2	Understanding CLASSPATH, importing packages			
3	differences between classes and interfaces			
4	defining an interface			
5	implementing interface,			
6	applying interfaces variables in interface			
7	extending interfaces.			
8	Exploring packages – Java.io			

On completion of this lesson the student shall be able to (Outcomes)

1.

2.

3.

4

	ASSIGNMENT **Unit-IV**	2013-14
		Regulation: R11

Assignment / Questions

1. Define Abstract class and Interface and what is the difference between them explain

with suitable examples.

2. Explain how a package subclass can access protected and public variables?
3. Create an interface with at least one method, and implement that interface by defining an inner class within a method, which returns a reference to your interface.

4. Define Abstract class and Interface and what is the difference between them explain
5. with suitable examples.
   (a) Explain how a package subclass can access protected and public variables?
   (b) Create an interface with at least one method, and implement that interface by
6. defining an inner class within a method, which returns a reference

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Note: Mention for each question the relevant objectives and outcomes.

	LESSON PLAN Unit-V	2013-14
		Regulation: R11

Name of the Faculty:: K.Swathi

Designation: Asst.Professor Designation: Asst.Professor

Unit 5

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
1	Concepts of exception handling,			
2	benefits of exception handling			
3	Termination or resumptive models, exception hierarchy			
4	usage of try, catch, throw, throws and finally			
5	built in exceptions			
6	creating own exception			
7	String Handling			
8	Exploring java.util			

On completion of this lesson the student shall be able to (Outcomes)

1.

2.

3.

4

	ASSIGNMENT **Unit-V**	2013-14 Regulation: R11

Assignment / Questions

1. What happens if we don't handle an exception?
2. When do we use multiple catch handlers? Explain.
3. What are exception types? a.Explain the role of stack in Java exception handling?
   a. b.Give the classification of various exceptions in Java.
4. Write a program to illustrate the usage of the following methods of StringBuffer class.Explain the output in each case. Delete(), setChatAt(), deleteChatAt(), append(),chatAt(), getChars().
5. How does Random class generate pseudo random numbers?
   Write a program to generate a set of random numbers. Find its sum and average.

   The program should also display ∗ based on the random numbers generated.

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Note: Mention for each question the relevant objectives and outcomes.

	LESSON PLAN Unit-VI	2013-14
		Regulation: R11

Name of the Faculty:: K.Swathi

Designation: Asst.Professor Designation: Asst.Professor

Unit 6

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
1	Differences between multi threading and multitasking			
2	thread life cycle			
3	creating threads			
4	synchronizing threads,			
5	interthread communication			
6	daemon threads, thread groups			
7	Enumerations, autoboxing			
8	annotations, generics			

On completion of this lesson the student shall be able to (Outcomes)

1.

2.

3.

4

	ASSIGNMENT **Unit-VI**	2013-14
		Regulation: R11

Assignment / Questions

1. Differentiate between process-based multitasking and thread-based multitasking.
2. Explain the various states of a thread. What is the purpose of assigning priorities to the threads?

3. What is synchronization? Explain briefly with an example
4. With the help of an example, explain multithreading by extending thread class.
5. Implementing Runnable interface and extending thread, which method you prefer for multithreading and why.

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Note: Mention for each question the relevant objectives and outcomes.

	LESSON PLAN **Unit-VII**	2013-14 Regulation: R11

Name of the Faculty:: K.Swathi

Designation: Asst.Professor Designation: Asst.Professor

Unit **7**

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
1	Events, Event sources, Event classes			
2	Event Listeners, Delegation event model,			
3	handling mouse and keyboard events			
4	Adapter classes, inner classes.			
5	The AWT class hierarchy			
6	user interface components- labels, button, canvas, scrollbars, text components, check box, check box			
7	groups, choices, lists panels – scrollpane, dialogs, menubar, graphics			
8	layout manager – layout manager types			
9	boarder, grid, flow, card and grib bag.			

On completion of this lesson the student shall be able to

1.

2.

3.

4

	ASSIGNMENT **Unit-VII**	2013-14 Regulation: R11

Assignment / Questions

1. What is event source? Give examples of event sources. How events are generated?
2. Are all events generated by user actions? Comment on it.
3. Explain following AWT classes with methods defined in them.
    a. Font
    b. Color
    c. Graphics
    d. Menu.
4. What are the limitations in AWT? How can you overcome by using Swings?
5. Explain about MVC architecture?
6. What is event source? Give examples of event sources. How events are generated?
7. Write a stand-alone AWT based application which creates a frame window that
    a. responds to mouse clicks and key strokes.
    b. Are all events generated by user actions? Comment on it.
8. Write a short notes o the following graphics functions
    a) paint( )
    b) repaint( )
    c) update( )
9. Define Canvas. Write a java program which creates a canvas and displays an image on it.

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Note: Mention for each question the relevant objectives and outcomes.

	LESSON PLAN **Unit-VIII**	2013-14 Regulation: R11

Name of the Faculty:: K.Swathi

Designation: Asst.Professor Designation: Asst.Professor

Unit 8

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
1	Concepts of Applets, differences between applets and applications			
2	life cycle of an applet, types of applets,			
3	creating applets, passing parameters to applets.			
4	components, containers			
5	JApplet, JFrame and JComponent.			
6	Icons and Labels, text fields, buttons			
7	The JButton class, Check boxes,			
8	Radio buttons, Combo boxes			
9	Tabbed Panes, Scroll Panes, Trees, and Tables			

On completion of this lesson the student shall be able to

1.

2.

3.

4

	ASSIGNMENT **Unit-VIII**	2013-14 Regulation: R11

Assignment / Questions

1. What is an Applet?
2. Briefly describe the applets architecture? Differentiate between init() and start() in an applet?
3. Briefly describe the lifecycle of an applet?
4. Differentiate the following with suitable examples:
5. a) Frame, JFrame
   b) Applet, JApplet
   c) Menu, Jmenu
6. Write an applet program to design login screen?

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Note: Mention for each question the relevant objectives and outcomes.