

J.B. INSTITUTE OF ENGINEERING & TECHNOLOGY

(AUTONOMOUS)



ACADEMIC YEAR

2013-14



COURSE PLAN

2013-14


Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: K.Jayakavya
Designation: Assistant professor
Department:: Information Technology

COURSE DETAILS

Name Of The Programme:: B.Tech
Designation::
Year
Department:: IT
Title of The Subject ACD
No of Students 90
Batch:: 2011-2015
Semester :III-II
Subject Code 56054

	<p>COURSE PLAN</p>	2013-14
		Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: K.Jayakavya
 Designation: Assistant professor
 Department:: Information Technology

1. TARGET

- a) Percentage Pass 100%
- b) Percentage I class:100%

2. COURSE PLAN

Coverage of Units by conceptualizing and solving numerical problems and by giving assignments

(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.)

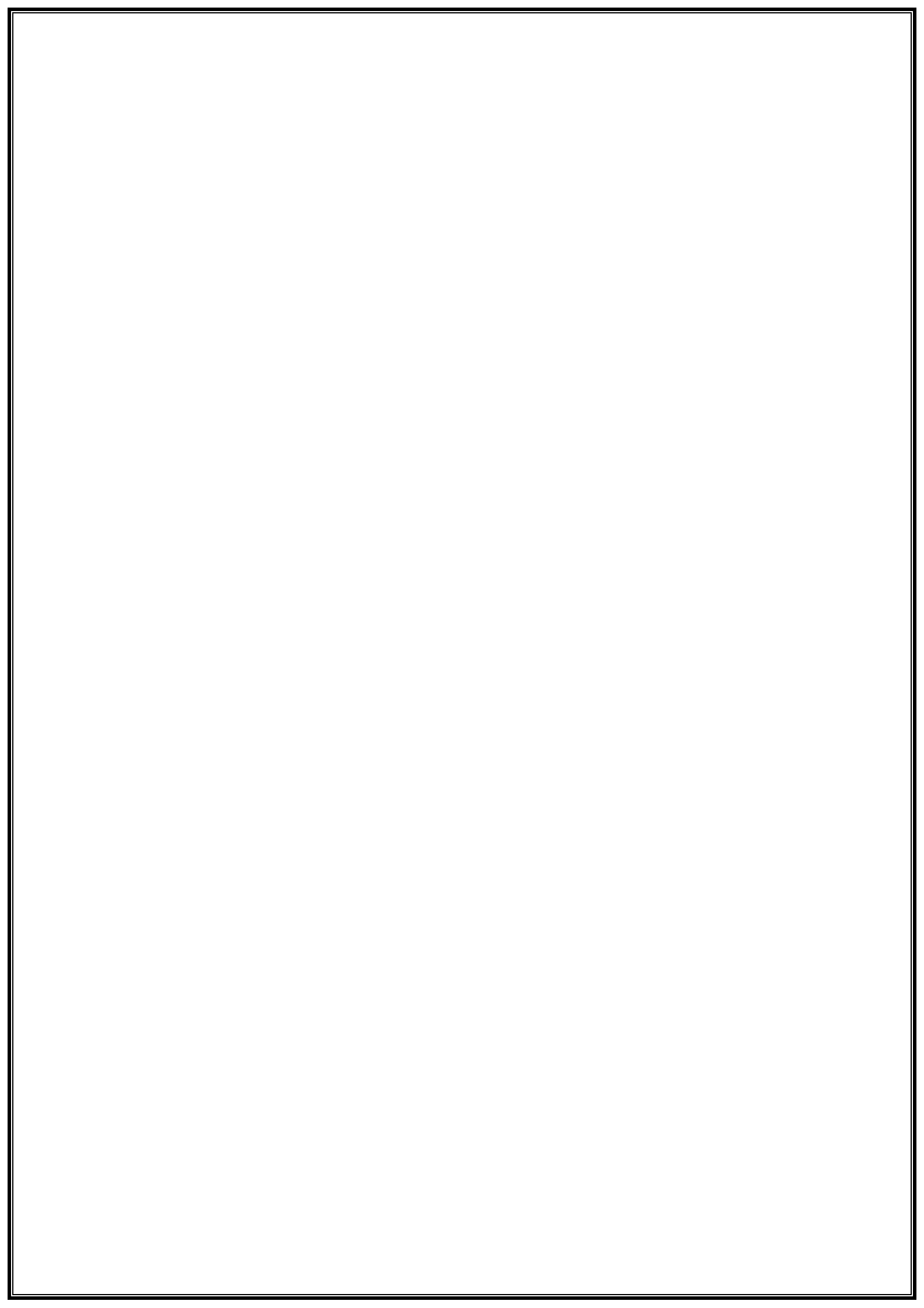
3. METHOD OF EVALUATION

- 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.

Signature of HOD
 Date:

Signature of Faculty
 Date:





GUIDELINES TO STUDY THE SUBJECT

2013-14

Regulation: R11

FACULTY DETAILS:

Name of the Faculty: K. Jayakavya

Designation: Asst. prof

Department: IT

Guidelines for Preparing the Course:

Course Description:

Computer Graphics is a study of the hardware and software principles of interactive raster graphics. Topics include an introduction to the basic concepts, 2-D and 3-D modeling and transformations, viewing transformations, projections, rendering techniques, graphical software packages and graphics systems. Students will use a standard computer graphics API to reinforce concepts and study fundamental computer graphics algorithms. Topics include an introduction to basic animation and function and animation language key frame systems.

Course Objectives:

1. Students will write program functions to implement visibility detection.
2. Students will write programs that demonstrate computer graphics animation.

Learning Outcomes:

1. Students will have an appreciation of the history and evolution of computer graphics, both hardware and software. Assessed by written homework assignment.
2. Students will have an understanding of 2D graphics and algorithms including: line drawing, polygon filling, clipping, and transformations. They will be able to implement these. Assessed by tests and programming assignments.
3. Students will understand the concepts of and techniques used in 3D computer graphics, including viewing transformations, hierarchical modeling, color, lighting and texture mapping. Students will be exposed to current computer graphics research areas. Assessed by tests, homework and programming assignments.
4. Students will be able to use a current graphics API (OpenGL). Assessed by programming assignments.
5. Students will be introduced to algorithms and techniques fundamental to 3D computer graphics and will understand the relationship between the 2D and 3D versions of such algorithms. Students will be able to reason about and apply these algorithms and techniques in new situations. Assessed by tests and programming assignments.



COURSE OBJECTIVES

2013-14

Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: K.JAYAKAVYA
 Designation: Assistant professor
 Department:: Information Technology

On completion of this Subject / Course the student shall be able to:

S.No.	Objectives	Outcomes
1.	Student should be able to describe the general software architecture and graphics application	Achieved as per the CP
2.	Student shall be able to discuss hardware system architecture for computer graphics. This includes, but is not limited to: graphics pipeline, frame buffers, and graphic accelerators/co-processors	Achieved as per the CP
3.	Student Shall be able to use a current 3D graphics API (e.g., OpenGL or DirectX)	
4.	Student shall be able to use the underlying algorithms, mathematical concepts, supporting computer graphics. These include but are not limited to: <ul style="list-style-type: none"> • Composite 3D homogeneous matrices for translation, rotation, and scaling transformations. • Plane, surface normal, cross and dot products. • Hidden surface detection / removal. • Scene graphs, display lists. 	Achieved as per the CP
5.	Student shall be able to select among models for lighting/shading: Color, ambient light; distant and light with sources	Achieved as per the CP
6.	Student shall be able to use and select among current models for surfaces (e.g., geometric; polygonal; hierarchical; mesh; curves, splines)	Achieved as per the CP
7.	Student shall be able to design and implement model and viewing transformations, the graphics pipeline and an interactive render loop with a 3D graphics API	Achieved as per the CP
8.	Student shall able to design and implement models of surfaces, lights, sounds, and textures (with texture transformations) using a 3D graphics API	Achieved as per the CP
9.		Achieved as

	Student shall able to discuss the application of computer graphics concepts in the development of computer games, information visualization, and business applications	per the CP
10.	Student shallable to discuss future trends in computer graphics and quickly learn future computer graphics concepts and APIs.	Achieved as per the CP Achieved as per the CP

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.JAYAKAVYA
 Designation: Assistant professor
 Department:: Information Technology

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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



COURSE SCHEDULE

2013-14

Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: K.JAYAKAVYA
 Designation: Assistant professor
 Department: Information Technology

The Schedule for the whole Course / Subject is: ACD

S. No.	Description	Duration (Date)		Total No. of Periods
		From	To	
1.	Unit-I Formal Language and Regular Expressions : Languages, Definition Languages regular expressions, Finite Automata – DFA, NFA. Conversion of regular expression to NFA, NFA to DFA. Applications of Finite Automata to lexical analysis, lex tools			05
2.	Unit-II Context Free grammars and parsing : Context free grammars, derivation, parse trees, ambiguity LL(K) grammars and LL(1) parsing			09
3.	UNIT-III Bottom up parsing handle pruning LR Grammar Parsing, LALR parsing, parsing ambiguous grammars, YACC programming specification.			09
4.	UNIT-IV Semantics : Syntax directed translation, S-attributed and L-attributed grammars, Intermediate code – abstract syntax tree, translation of simple statements and control flow statements.			09
5.	UNIT-V Context Sensitive features – Chomsky hierarchy of languages and recognizers. Type checking, type conversions, equivalence of type expressions, overloading of functions and operations.			09

6.	UNIT-VI Run time storage: Storage organization, storage allocation strategies scope access to now local names, parameters, language facilities for dynamics storage allocation.			08
7	UNIT-VII Code optimization: Principal sources of optimization, optimization of basic blocks, peephole optimization, flow graphs, Data flow analysis of flow graphs.			08
8	UNIT-VIII Code generation: Machine dependent code generation, object code forms, generic code generation algorithm, Register allocation and assignment. Using DAG representation of Block.			08

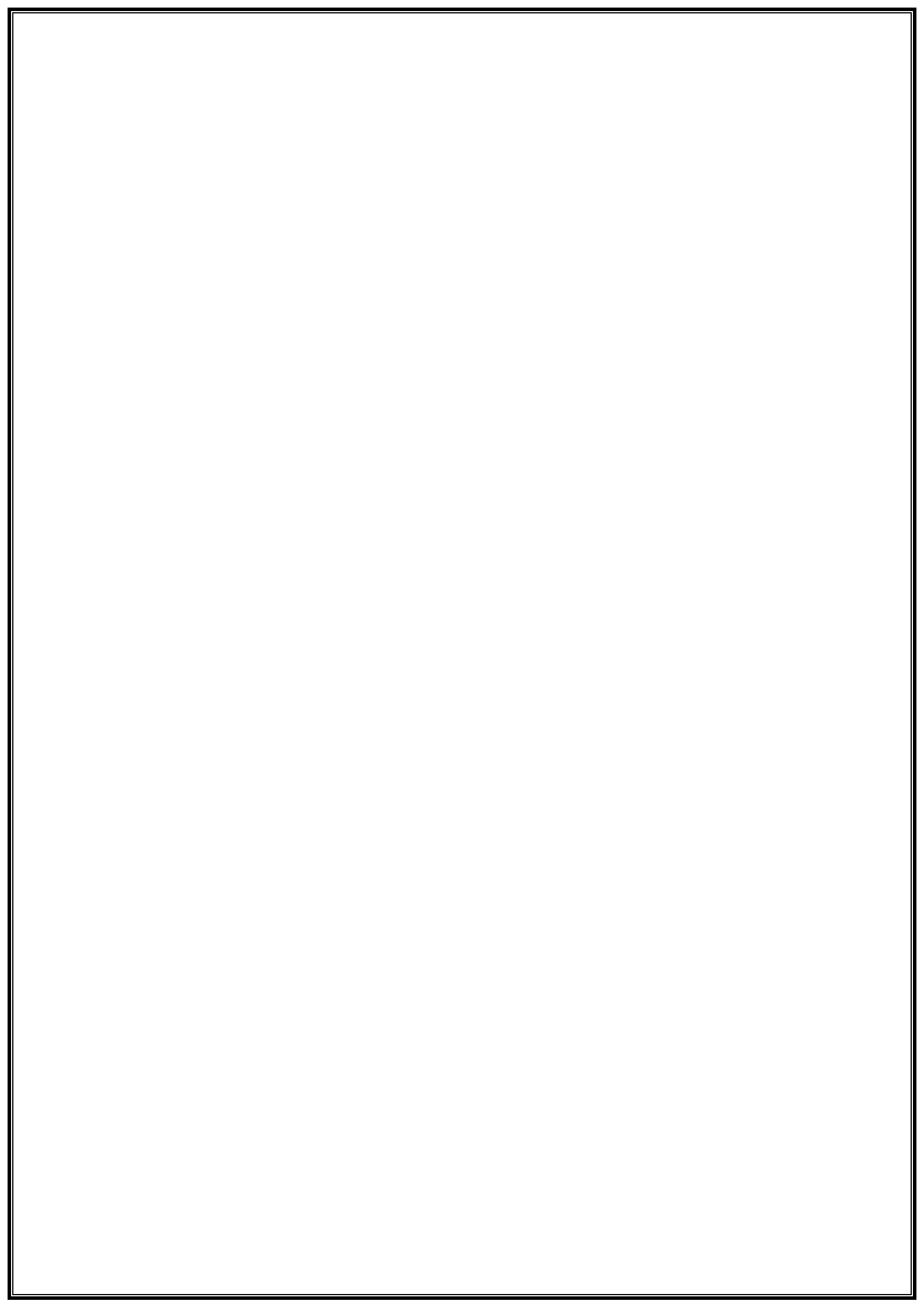
Total No. of Instructional periods available for the course: Hours / Periods 71


Text Books (TB)

- T1. Introduction to Theory of computation. Sipser, 2nd Edition, Thomson.
- T2. Compilers Principles, Techniques and Tools Aho, Ullman, Ravisethi, Pearson Education.

Suggested / Reference Books (RB)

1. Modern Compiler Construction in C , Andrew W.Appel Cambridge University Press.
2. Compiler Construction, LOUDEN, Thomson



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

FACULTY DETAILS:


Name of the Faculty:: K.Jayakavya
 Designation: Assistant professor
 Department:: Information Technology

The Schedule for the whole Course / Subject is:: ACD

Sl. No.	Date	No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal...) Page No ___ to ___
1	10/12/13	1	Languages, Definition Languages regular expressions		TB 1
2	11/12/13	3	Finite Automata – DFA, NFA. Conversion of regular expression to NFA, NFA to DFA.		TB 1
3	12/12/13	5	Applications of Finite Automata to lexical analysis, lex tools.		TB1
4					
5					
6					
7					
8					
9					
10					

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.JAYAKAVYA
 Designation: Assistant professor
 Department:: Information Technology

The Schedule for the whole Course / Subject is:: ACD

Sl. No.	Date	No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal...) Page No ___ to ___
11	23/12/13	07	Context free grammars, derivation		TB 1
12	26/12/13	09	parse trees		TB 1,
13	27/12/13	11	ambiguity LL(K) grammars		TB 1,
14	28/12/13	13	LL(1) parsing		TB 1,

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.JAYAKAVYA
 Designation: Assistant professor
 Department:: Information Technology


The Schedule for the whole Course / Subject is:: ACD

Sl. No.	Date	No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal...) Page No ___ to ___
21	8/1/14	16	Bottom up parsing handle pruning		TB 1,
22	9/1/14	19	LR Grammar Parsing, LALR parsing		TB 1,
23	10/1/14	22	parsing ambiguous grammars, YACC programming specification		TB 1,
24					
25					
26					
27					

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.JAYAKAVYA
 Designation: Assistant professor
 Department:: Information Technology


The Schedule for the whole Course / Subject is:: ACD

Sl. No.	Date	No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal...) Page No ___ to ___
28	1/2/14	25	Syntax directed translation, S-attributed and L-attributed grammars,		TB 1,
29	3/2/14	28	Jump and Call Instructions, Intermediate code – abstract syntax tree		TB1
30	5/2/14	31	translation of simple statements and control flow statements.		TB 1,
31	6/2/14				
32	7/2/14				
33	10/2/14				
34	17/2/14				

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.JAYAKAVYA
 Designation: Assistant professor
 Department:: Information Technology


The Schedule for the whole Course / Subject is:: ACD

Sl. No.	Date	No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal...) Page No ___ to ___
36	19/2/14	34	Context Sensitive features – Chomsky hierarchy of languages and recognizers		TB 1
37	20/2/14	37	Type checking, type conversions, equivalence of type expressions		TB 1
38	21/2/14	40	overloading of functions and operations		TB 1
39	22/2/14				
40	24/2/14				
41	26/2/14 to 28/2/14				
42	1/3/14				

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.JAYAKAVYA
 Designation: Assistant professor
 Department:: Information Technology

The Schedule for the whole Course / Subject is:: ACD

Sl. No.	Date	No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal...) Page No ___ to ___
1	6/8/14	42	Run time storage: Storage organization,		TB-2
2	7/3,8/3	45	storage allocation strategies scope access to how local names,		TB-2
3	10/3	48	parameters, language facilities for dynamics storage allocation.		TB-2,
4					
5					
6					

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.JAYAKAVYA
 Designation: Assistant professor
 Department:: Information Technology

The Schedule for the whole Course / Subject is:: ACD

Sl. No.	Date	No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal...) Page No ___ to ___
1	15/3	50	Code optimization: Principal sources of optimization,		TB-2
2	19/3	53	optimization of basic blocks, peephole optimization, flow graphs,		TB-2
3	20/3	56	Data flow analysis of flow graphs.		TB-2

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.JAYAKAVYA
 Designation: Assistant professor
 Department:: Information Technology

The Schedule for the whole Course / Subject is:: ACD

Sl. No.	Date	No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal...) Page No ___ to ___
1	2/4	59	Code generation: Machine dependent code generation,		TB-2
2	3/4	62	object code forms, generic code generation algorithm,		TB-2
3	4/4	64	Register allocation and assignment. Using DAG representation of Block.		TB-2

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.JAYAKAVYA

Subject:: ACD

Subject Code

Department:: IT

Actual Date of Completion & Remarks, if any

Units	Remarks	Nos. of Objectives Achieved
Unit 1	Covered the syllabus as the per the course plan.	As Per Cp
Unit 2	Covered the syllabus as the per the course plan.	As Per Cp
Unit 3	Covered the syllabus as the per the course plan.	As Per Cp
Unit 4	Covered the syllabus as the per the course plan.	As Per Cp
Unit 5	Covered the syllabus as the per the course plan.	As Per Cp
Unit 6	Covered the syllabus as the per the course plan.	As Per Cp
Unit 7	Covered the syllabus as the per the course plan.	As Per Cp
Unit 8	Covered the syllabus as the per the course plan.	As Per Cp

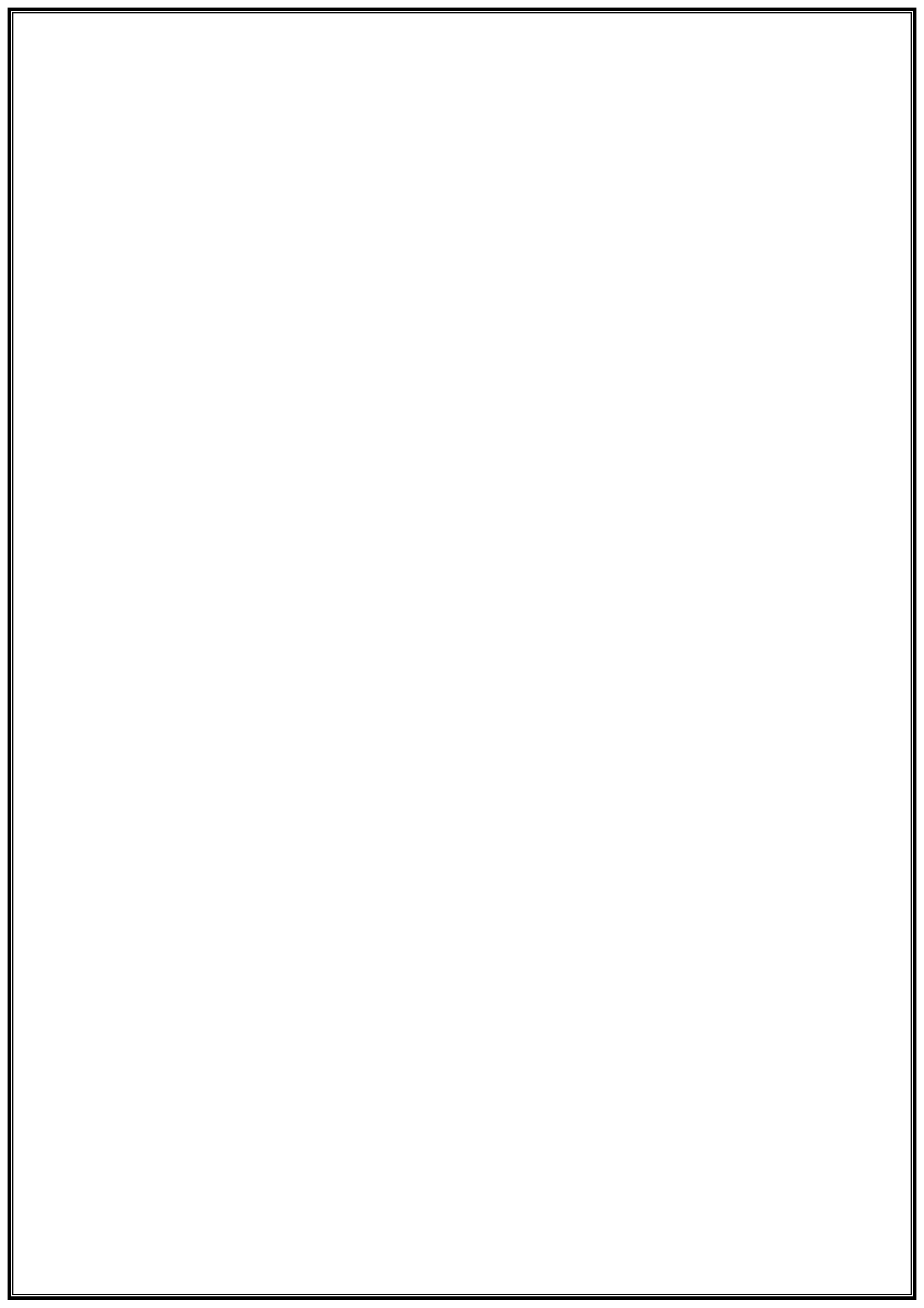
Signature of Dean of School

Signature of Faculty

Date:

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.JAYAKAVYA
Designation: Assistant professor
Department:: Information Technology
The Schedule for the whole Course / Subject is:: ACD

Date:

This Tutorial corresponds to Unit Nos.CO

Time:

Q1.Explain the video display devices?

Q2.Explain the input devices and computer applications?

Q3.Explain DDA algorithm with Example?

Q4.Explain midpoint circle algorithm with an example?

Q5.Explain ellipse algorithm and with an example?

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.JAYAKAVYA
Designation: Assistant professor
Department:: Information Technology
The Schedule for the whole Course / Subject is:: ACD

Date:

This Tutorial corresponds to Unit Nos.CO(3,4,5 Units)

Time:

Q1.Explain the composite transformations with an examples?

Q2.Explain filled area primitives with an example?

Q3.Explain window to view port coordinate transformations with an examples?

Q4.Explain Cohen-Sutherland and Cyrus-Beck line algorithm with example?

Q5.Explain the B-Spline and Bezier curve with an example?

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.JAYAKAVYA
Designation: Assistant professor
Department:: Information Technology

Date:

This Tutorial corresponds to Unit Nos.CG (6,7,8)

Time:

Q1.Explain Basic Illumination Models and Polygon rendering methods?

Q2.Explain Back-Face detection and depth sorting method?

Q3.Explain 3D viewing coordinates and viewing volume and general projection?

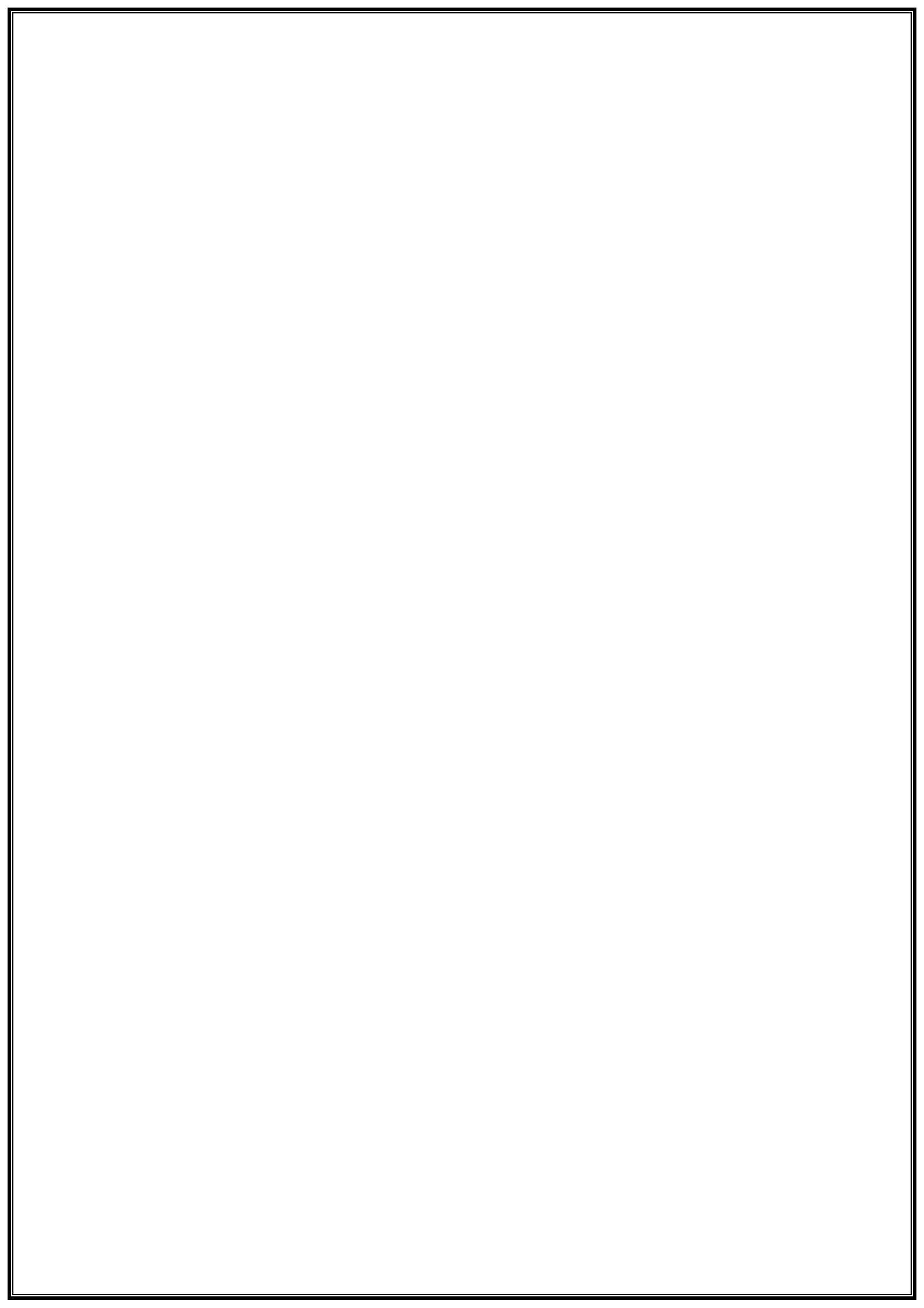
Q4.Explain computer animation and application?

Q5.Explain computer animation languages and key frame systems?

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 procedure)	Demonstrate	Discriminate	Compile	Conclude
List	Distinguish	Deduce	Distinguish	Compose	Contrast
Match	Estimate	Modify	Separate	Create	Criticize
Reproduce	Explain why/how	Predict	Subdivide	Devise	Justify
Select	Extend	Prepare		Design	Interpret
State	Generalize	Relate		Generate	Support
	Give examples	Show		Organize	
	Illustrate	Solve		Plan	
	Infer			Rearrange	
	Summarize			Reconstruct	
				Reorganize	
				Revise	

B. Affective Domain

Adhere
Assist
Attend
Change
Develop
Help
Influence
Initiate

Resolve
Select
Serve
Share

C. Psychomotor Domain (skill development)

Bend
Calibrate
Compress
Conduct
Connect
Convert
Decrease
Demonstrate

Dissect
Draw
Extend
Feed
File
Grow
Handle
Increase

Insert
Keep
Elongate
Limit
Manipulate
Move precisely
Operate
Paint

Perform
Prepare
Remove
Replace
Report
Reset
Run
Set

Straighten
Strengthen
Time
Transfer
Type
Weigh



LESSON PLAN
Unit-1

2013-14

Regulation: R11

Name of the Faculty: K.JAYAKAVYA

Subject ACD

Subject Code 56054

Unit I

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
1	Languages, Definition Languages regular expressions	10/12/13	TB 1,	Lecture method
2	Finite Automata – DFA, NFA. Conversion of regular expression to NFA, NFA to DFA.	11/12/13	TB 1,	
3	Applications of Finite Automata to lexical analysis, lex tools	12/12/13	TB1,	
4				
5				
6				
7				
8				
9				
10				

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

1.Student shall be able to understand the how the picture is display in the monitors

2 student shall be able to understand the raster scan system and random scan systems.

3.Student shall be able to understand the what are the software are used in the computer graphics packages



**ASSIGNMENT
Unit-I**

2013-14

Regulation: R11

Assignment / Questions

1. What are the features of Inkjet printers?
2. What do you mean by scan conversion?
3. List out the merits and demerits of DVST?
4. Define Random scan/Raster scan displays?
5. What is the difference between impact and non-impact printers?

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.JAYAKAVYA

Subject: ACD

Subject Code: 56054

Unit II

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
1	Context free grammars, derivation		TB 1	
2	parse trees		TB 1,	
3	ambiguity LL(K) grammars		TB 1,	
4	LL(1) parsing		TB 1,	
5				
6				
7				
8				
9				
10				

On completion of this lesson the student shall be able to

1. Student shall be able to implement the line and midpoint algorithm in C&C++ programs
2. Student shall be able to implement the scan line algorithm in C++
3. Student shall be able to understand the how to fill a colour in the pictures using flood fill algorithms
4. Student shall be able to understand the filling of colour in an image using these algorithms



**ASSIGNMENT
Unit-II**

2013-14


Regulation: R11

Assignment / Questions

1. What are the various attributes of a line?
2. What is Colour Look up table? Explain?
3. What is tiling patterns? and explain briefly?
4. Explain the midpoint circle algorithm with an example?
5. Explain the boundary fill algorithm with an example?

Signature of Faculty

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

	LESSON PLAN Unit-III	2013-14
		Regulation: R11

Name of the Faculty: K.JAYAKAVYA

Subject ACD

Subject Code 56054

Unit III

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
1	Bottom up parsing handle pruning	8/1/14	TB 1	
2	LR Grammar Parsing, LALR parsing	9/1/14	TB 1,	
3	parsing ambiguous grammars, YACC programming specification	10/1/14	TB 1,	
4				
5				
6				
7				

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

1. Student shall be able to understand the how an image transformed one position to another positions
2. Student shall be able understand the matrix representation and composition Transformations.



ASSIGNMENT
Unit-III

2013-14

Regulation: R11

Assignment / Questions

1. Explain Matrix representation and homogeneous coordinates with an example?
2. Explain Rotation, Reflection and Shear transformation with an examples?
3. Explain Composition Transformations with examples?

Signature of Faculty

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



LESSON PLAN
Unit-IV

2013-14

Regulation: R11

Name of the Faculty: K.JAYAKAVYA

Subject ACD

Subject Code 56054


Unit IV

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
1	Syntax directed translation, S-attributed and L-attributed grammars		TB 1,	
2	Jump and Call Instructions, Intermediate code – abstract syntax tree		TB-1	
3	translation of simple statements and control flow statements.		TB 1,	
4				
5				
6				
7				
8				

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

1. Student shall be able to understand the window to viewport
2. Student shall be able to understand the clipping methods


	ASSIGNMENT Unit-IV	2013-14
		Regulation: R11

Assignment / Questions

1. Explain Window to view port coordinates transformation with an example?
2. Explain The viewing pipeline and view functions with an example?
3. Explain Cohen sutherland algorithm with an example?

Signature of Faculty

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

	LESSON PLAN Unit-V	2013-14
		Regulation: R11

Name of the Faculty: K.JAYAKAVYA

Subject ACD

Subject Code 56054


Unit V

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
	Context Sensitive features – Chomsky hierarchy of languages and recognizers		TB 1	
	Type checking, type conversions, equivalence of type expressions		TB 1,	
	overloading of functions and operations		TB 1,	

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

1.Student Shall be able to understand the polygon surfaces and Bezier curves

	ASSIGNMENT Unit-V	2013-14
		Regulation: R11

Assignment / Questions

1. Explain Bezier curve and surfaces and B-spline curve and surfaces?
2. Explain polygon surfaces with an example
3. Explain Basic illumination models?

Signature of Faculty

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



LESSON PLAN
Unit-VI

2013-14

Regulation: R11

Name of the Faculty: K.JAYAKAVYA

Subject ACD

Subject Code 56054


Unit VI

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
	Run time storage: Storage organization,	6/8/14	TB-2	
	storage allocation strategies scope access to now local names,	7/3,8/3	TB-2	
	parameters, language facilities for dynamics storage allocation.	10/3	TB-2	

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. Explain Back-Face detection and Depth buffer, scan-line ?
2. Explain BSP-tree methods and Area sub division and octree methods? Explain
3. Visible surface detection method classifications?

Signature of Faculty

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



LESSON PLAN
Unit-VII

2013-14

Regulation: R11

Name of the Faculty: K.JAYAKAVYA

Subject ACD

Subject Code 56054


Unit VII

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
	Code optimization: Principal sources of optimization,		TB-2	
	optimization of basic blocks, peephole optimization, flow graphs,		TB-2	
	Data flow analysis of flow graphs.		TB-2	

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. Explain Translation ,rotation reflection and shear transformation with a suitable examples?
2. Explain Viewing volume and general projection?
3. Explain clipping examples?

Signature of Faculty

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



LESSON PLAN
Unit-VIII

2013-14

Regulation: R11

Name of the Faculty: K.JAYAKAVYA

Subject ACD

Subject Code 56054

Unit VIII

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
	Code generation: Machine dependent code generation,		TB-2	
	object code forms, generic code generation algorithm,		TB-2	
	Register allocation and assignment. Using DAG representation of Block.		TB-2	

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. Explain Computer animation and applications?
2. Explain General computer animation functions?
3. Explain Raster animations examples ?
4. Explain Computer animation languages and key frame systems?

Signature of Faculty

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