



**GOVERNMENT OF TAMILNADU**  
**DIRECTORATE OF TECHNICAL EDUCATION, CHENNAI**  
**STATE PROJECT COORDINATION UNIT**  
**(Established under Canada India Institutional Cooperation Project )**

**CURRICULUM**

Course Name	2D ANIMATION USING FLASH
Course Code	CSE/2020/015
Course Duration	80 Hours
Minimum Eligibility Criteria and Pre-requisites(if any)	ITI/10 <sup>th</sup> /+2/Diploma/Graduates Basics concepts of Computer
Course Objectives	<p>Training module has been designed</p> <ul style="list-style-type: none"> <li>To familiarize the students with various approaches, methods and techniques of Animation Technology.</li> <li>To develop the competencies and skills needed for becoming an effective Animator.</li> <li>To Master the traditional &amp; digital tools to produce stills and moving images. Exploring different approaches in computer animation.</li> <li>To enable students to manage Animation Projects from its Conceptual Stage to the final</li> <li>To apply Audio and Video Production Techniques to an Animation Project.</li> </ul>
Course Outcomes	<p>At the end of training, the participants will be able to</p> <ul style="list-style-type: none"> <li>learn basic concepts of 2D Animation, Storyboarding and create animated digital multimedia content for media using the tools and techniques as available in the Adobe Flash software.</li> <li>Calculate and apply appropriate frame rates</li> <li>Manipulate animation production equipment</li> <li>Create accurate and aesthetically appealing computer generated animation</li> <li>Describe characteristics of well-designed and executed animation</li> <li>Relate some knowledge of the history of animation</li> <li>Assess and critique past and current animation trends</li> <li>Demonstrate progress in basic drawing and animation skills</li> </ul>
Expected Job Roles	2D Flash Animator , Flash Designer.

TEACHING AND SCHEME OF EXAMINATION						
Course Code	Course Name	Hours		Assessment Marks		Duration of Examination
				Min	Max	
CSE/2020/015	2D ANIMATION USING FLASH	Theory	30	10	20	3 Hours
		Practical	50	40	80	
		Total	80	50	100	

**CSE/2020/015 - 2D ANIMATION USING FLASH  
DETAILED SYLLABUS**

<b>UNIT NO</b>	<b>MODULES</b>	<b>NO.OF.HOURS THEORY</b>
<b>I</b>	<b>INTRODUCTION TO FLASH</b>	
1.1	Workflow Basics	7
1.2	Using the Project Panel in Flash CS5	
1.3	Managing Windows and Panels	
1.4	The Tools Panel	
1.5	The Document Window	
1.6	Timeline Window	
<b>II</b>	<b>CUSTOMIZING TOOLS</b>	
2.1	Geometric Shape Tools - Drawing Tools	7
2.2	Fill and Stroke Controls- Putting Selection Tools to Work	
2.3	Designing and Aligning Elements	
2.4	Spray Brush Tool and the Deco Tool.	
<b>III</b>	<b>ANIMATIONS AND ITS EFFECTS</b>	
3.1	Creating Animation and Effects	8
3.2	Frame-by-Frame Animation- Onion skinning	
3.3	Shape tweening -Motion tweening	
3.4	Modifying motion tween properties	
3.5	Adjusting Easing and Tween Properties with the Motion Editor.	
<b>IV</b>	<b>FILTERS</b>	
4.1	Filters and Integration of Media files	8
4.2	Applying Filters in Flash -Properties versus Filters	
4.3	Layering Graphics with Blend Modes	
4.4	Importing Sounds into Flash	
4.5	Synchronizing Audio to Animations -Editing Audio in Flash	
4.6	Final Sound Advice and Pointers	
<b>Total Theory Hours</b>		<b>30</b>
<b>Total Practical Hours</b>		<b>50</b>
<b>Total Hours</b>		<b>80</b>

## **PRACTICAL ( 50 HOURS )**

1. Create a moving Car by using motion tween technique.
2. Change from one shape to another by using shape tween technique.
3. Use filter techniques to get growing moon in flash.
4. Draw christmas tree by using frame by frame animation technique.
5. By using free transform tool change the shape of the ball to get bouncing ball.
6. Animate flag by using different layers.
7. Animate butterfly with background picture by using motion path guiding technique.
8. Animate Stylize Fire by masking different layers.
9. Animate Rain by using onion skinning with several copies of same rain drop objects.
10. Make Flying Balloon by using action script code.
11. Create virtual drum beat effect with several key frames.
12. Create an ocean sunset scene effect by importing normal sea image clip.
13. Make car accident animation by importing sound file in flash.
14. Animate moving cloud by using motion tween effect.
15. Animate clock in flash by using action script code.

### **HARDWARE REQUIREMENT**

S.NO	LIST OF TOOLS /EQUIPMENTS
1	Computer
2	Printer

### **SOFTWARE REQUIREMENT**

S.NO	LIST OF SOFTWARE
1	Adobe flash software

### **REFERENCE BOOKS**

S.NO	NAME OF THE BOOK	AUTHOR	PUBLISHER
1.	Creating 2D Animation with Adobe creative suite	Debbie Keller	Delmar Cengage Learning; New edition edition (29 April 2013)
2.	The Animator's Survival Kit	Richard Williams	Faber; 3 edition (8 December 2009) ...
3.	Timing for Animation	Harold Whiltaker , John Halos,	CRC Press; 2 edition (2 September 2009)
4.	Animation, a Reference Guide	Thomas William Hoffer	Greenwood; 1st edition (December 23, 1981)
5.	Adobe ® Flash Professional CS5	Todd Perkins	Wiley India
6.	Elemental Magic, Volume I: The Art of Special Effects Animation	Joseph Gilland	Taylor and Francis

## ASSESSMENT AND CERTIFICATION

S.No	Criteria for assessment
1.	A trainee will be assessed based on the performance in End Examination for Theory and Practical conducted internally in the Project Polytechnic College for a duration of 3 hours
2.	A trainee must have 75% of attendance to appear for End examination in Theory and Practical.
3.	The assessment for theory part will be based on the marks scored in the end examination on the knowledge bank of questions (1 word/objective type questions)
4.	The assessment for practical part will be based on the marks scored in the end examination conducted by the Project Polytechnic and assessed by the Examiners approved by Strategic Plan Implementation Committee (SPIC) of the project polytechnic.
5.	The criteria for successful completion of training is every trainee should score 50% of marks in theory and practical examination.
6.	On successful completion of training , Certificate will be issued to the participants by the Directorate of Technical Education through the Project Polytechnic.

## END EXAMINATION

### ALLOCATION OF MARKS

S.No	Description	Max.Marks
1.	Theory Examination	20
2.	Practical Examination	
	a)Procedure	10
	b)Execution	30
	c)Output	20
	d)Record	20
Total Marks		100

## THEORY MODEL QUESTION PAPER

### CSE/2020/015 - 2D ANIMATION USING FLASH

(Maximum Marks : 20 )

(N.B: Answer any **twenty** questions)

**20 x 1 = 20 Marks**

- 1) ----- area in Flash is similar to the clipboard in Microsoft Office applications.
- 2) Part of the menu bar allows you to hide/unhide panels is -----
- 3) Which tool allows you to create a polygon and a star?
- 4) ----- is a way to partially hide an image in the layer immediately below another layer.
- 5) Import sound in flash by using -----
- 6) The smooth transitions between key frames is referred to as-----
- 7) Empty key frames are indicated by a -----circle on the timeline.
- 8) The -----shows the frames in the movie.
- 9) ----- type of animation support is there in flash?
- 10) ----- is the Shortcut Key to open rulers in Flash.
- 11) Number of key frames required for creating a shape tweening are -----
- 12) The largest size of a frame is -----
- 13) The \_\_\_\_\_ shows the frames in the movie.
- 14) What is the maximum number of shape hints that you can add to a shape tween ?
- 15) -----has a set of built-in standard artwork that includes fills, brushes, and animations.
- 16) What allows you to see the frames before and after the layer you're on?
- 17) Which tool is used to change the size and rotation of an object?
- 18) The motion would be best suited to being animated with a shape tween is -----
- 19) The brush option that paints behind the object on the stage is -----
- 20) ----- Zoom in or out of a selected area of the stage.
- 21) Easing values range from -----
- 22) Which area in Flash is similar to the clipboard in Microsoft Office application?
- 23) The brush option that paints behind the object on the stage is -----
- 24) Which tool allows you to modify the gradient in three ways?
- 25) ----- adds interesting visual effects to text, buttons, and movie clips.