

**Paper Code:** BCADSE 5.5    **Paper title:** Elective-II: b. Gaming and Animation    **Teaching Hours –** 5 hrs/week

**Total Teaching Hours:** 60 Hrs.

**Marks:** Th-80+IA-20

**Credits:** 4

### UNIT-1

HTML5 – SVG ,Viewing SVG Files ,Embedding SVG in HTML5 ,HTML5 – SVG Circle ,HTML5 – ,SVG Rectangle  
HTML5 – SVG Line ,HTML5 – SVG Ellipse ,HTML5 – SVG Polygon ,HTML5 – SVG Polyline ,HTML5 – SVG  
Gradients ,HTML5 – SVG Star **12Hrs**

### UNIT-2

HTML5 – CANVAS- The Rendering Context ,Browser Support ,HTML5 Canvas Examples , Canvas - Drawing Rectangles  
, Canvas - Drawing Paths , Canvas - Drawing Lines , Canvas - Drawing Bezier Curves , Canvas - Drawing Quadratic  
Curves , Canvas - Using Images ,Canvas - Create Gradients ,HTML5 - Styles and Colors , Canvas - Text and Fonts ,  
Canvas - Pattern and Shadow , Canvas - Save and Restore States , Canvas - Translation , Canvas - Rotation , Canvas -  
Scaling , Canvas - Transforms , HTML5 Canvas - Composition , Canvas – Animations. **12Hrs**

### UNIT-3

What is an Animation?,The Start and End States , Interpolation ,Animations in HTML, All About CSS  
Animations,Creating a Simple Animation ,24 What Just Happened, Detailed Look at the CSS Animation Property ,  
Reusing Keyframes , Declaring Multiple Animations , Wrap-upAll About CSS Transitions,Adding a Transition ,Looking at  
Transitions in Detail , The Longhand Properties ,Longhand Properties vs. Shorthand Properties , Working with Multiple  
Transitions...and So On, The transitionEnd Event **12Hrs**

### UNIT-4

Sliding Background Effect on Link Hover ,Overview of How This Works , How this Effect Really Works,Creating a  
Sweet Content Slider ,Overview of How It Works , The Code,The<BLINK>Tag Shall Live On , Re-creating the Blink  
Effect , Overview of How It Works,Simple Text Fade and Scale Animation , The ExampleMove Element to Click  
Position , The Example ,The Full Code , How This All WorksHover Effects Using Animations , What This Looks Like ,  
Hovering, CSS Animations, and Handoffs **12Hrs**

### UNIT-5

Animations Created in Code, Why Animate Using JavaScript , Breaking Down a JavaScript Animation , Looking at a  
Real Example , Going a Little More CrazyMeetrequestAnimationFrame , Meet requestAnimationFrame ,Using It  
,Another Example ,Your Frame Rate ,Stopping your requestAnimationFrameLoopVendor Prefixes in JavaScript , Meet  
the Vendor Prefixes in JavaScript , Dealing with Vendor PrefixesAnimating What You Draw, How This Is All Going to  
Work , Actually Drawing and Animating on a Canvas ,Animating Your Circle. Game IntroGame, CanvasGame,  
ComponentsGame, ControllersGame, ObstaclesGame, ScoreGame, ImagesGame, SoundGame, GravityGame,  
BouncingGame, RotationGame, Movement **12Hrs**

### References:

1. Animation in HTML, CSS, and JavaScript ByKirupaChinnathambi
2. <https://www.tutorialspoint.com/html5/index.htm>
3. Gaming Section last unit :[https://www.w3schools.com/graphics/game\\_intro.asp](https://www.w3schools.com/graphics/game_intro.asp)
4. [https://cloudinary.com/blog/creating\\_html5\\_animations](https://cloudinary.com/blog/creating_html5_animations)