

## 1. Movie Editing Tools

### Unsolved Exercise ?

#### Section A (Objective Type Questions)

- A.** 1. iv      2. ii      3. i      4. iv      5. ii      6. ii
- B.** 1. Clips      2. Multimedia Files      3. panes, storyboard/timeline  
4. timeline      5. Movica
- C.** 1. True      2. False      3. True      4. False      5. False

#### Section B (Subjective Type Questions)

- A.** 1. You can adjust the size of the Preview Monitor by selecting View > Preview Monitor Size and choosing a size. Additionally, you can resize the window by dragging it to make it larger or smaller.
2. Two features of Windows Movie Maker are as follows:
- It allows users to edit videos by trimming, splitting, and arranging clips.
  - It offers both storyboard and timeline modes for editing.
3. Given steps are used to undo the trimming that you have done:
- Select Timeline from the View menu when in storyboard view.
  - On the timeline, click the trimmed clip, select Clip, and then select Clear Trim Points.
4. You put together clips and sound files in the Storyboard/Timeline pane to make the final output. Additionally, you can include titles, narration, and transitions.
5. Two features of MovieStorm are as follows:
- It provides tools for creating customizable 3D characters.
  - It offers animation tools for keyframing character movements, facial expressions, and gestures.

6. JPEG stands for Joint Photographic Experts Group.

- B.** 1. Blender: A free and open-source 3D computer graphics toolkit, Blender, is used to make animated movies, visual effects, artwork, 3D-printed models, motion graphics, interactive 3D apps, virtual reality, and, previously, video games. The features of Blender include 3D modelling, UV mapping, texturing, digital drawing, raster graphics editing, rigging and skinning, fluid and smoke simulation, particle simulation, soft body simulation, sculpting, animation, match movement, rendering, motion graphics, video editing, and compositing.
- MovieStorm: Published by Moviestorm Ltd., Moviestorm is a real-time 3D animation application. The software is accessible to and is used by individuals of all ages, and it appeals to those with a wide range of backgrounds and interests, including amateur and professional filmmakers, as well as those working in business and education, as well as those who are just looking to tell stories or create messages to share using video. Using machinima technology, users of Moviestorm can produce animated movies.
2. Steps to add a title:
- Select the storyboard/timeline place where the title or credits are to be added by clicking there.
  - Select Tools before selecting Titles and Credits.
  - Go to the link that points to the location where the title or credit should be added, and then click it.
  - Type the text you wish to be the title or credit in the box labelled "Enter text for title."
  - The default animation and format for the title or credit that needs to be placed are displayed on the monitor after you finish typing the text. Choose what appeals to you.
  - Select Add Title.
3. Filters are effects that give your video or photo a visual makeover (for example, making it black & white). Filters play a significant role in movie editing by allowing users to enhance or modify the visual aspects of their videos like effects, transitions, color corrections, etc.
4. Choose one of the following depending on the kind of digital media file you wish to import:
- Under Capture Video in the Movie Tasks pane, select Import Video.
  - Under Capture Video in the Movie Tasks pane, select Import Pictures.
  - Click Import audio or music in the Movie Tasks pane's Capture Video section.
  - Enter the path and file name of the file you wish to import in File name, and then click Import.
  - The Create clips for video files check box should be selected if you want to slice up chosen video files into smaller clips.
5. i. Storyboard Pro, a tool used by storytellers, filmmakers, and creatives all over the world, enables you to write down your ideas, organise the sequence, and extend the story so that it can be shared, pitched, and promoted according to your preferences.

- ii. With more than 120 built-in video effects, including superb colour and chroma keying, the t@b ZS4 Video Editing Software is a video compositing/editing system. Other capabilities include the ability to slave effect and compositing controls to audio wave forms, infinite tracks and sub-composites, custom video and audio speed and direction change, and custom output video width and height.

**C. Competency-based/Application-based questions:**

1. The software you use to extract the files from your phone has the ability to convert them to a format compatible with Windows Movie Maker. I recommend you export to WMV format because it's the standard one used by WMM.
2. Use record narration option to record his audio.
3. Monica should apply an AutoMovie theme to her video to add title, caption, credits, transitions and visual effects in just one click.

## 2. Customising and Embedding Multimedia Components in Web Pages

### Unsolved Exercise ?

#### Section A (Objective Type Questions)

- A.** 1. ii (This option is misprinted in the book. Please replace it with the following option.) Only (b) is correct.
2. ii      3. iv      4. ii      5. ii
- B.** 1. Mixcloud or SoundCloud      2.compressed digital
3. Freemake Video      4. multimedia
5. Animation
6. Hypertext Markup Language and eXtensible Markup Language
- C.** 1. True      2. False      3. True      4. True      5. False

#### Section B (Subjective Type Questions)

- A.** 1. i. A plug-in is an application that runs independently of the web browser and provides functionality like audio and video playback for viewers.
- ii. SWFObject is an open-source JavaScript library for embedding Adobe Flash content in web pages and protecting Flash games from piracy, delivered as a small JavaScript file.



2. i. With only a few clicks and no need to write a single line of code, users of the Windows and Mac can use the wizard tool of Video LightBox to quickly and effortlessly embed video onto a website or blog.
- ii. Quick Media Converter is a totally free music and video converter with a highly user-friendly UI that is very intuitive. You choose the music or video file in Quick Media Converter to convert.
3. i. .tiff - Tagged Image File Format
- ii. .aac - Advanced Audio Coding
- iii. .wmv - Windows Media Video
- iv. .epsi - Encapsulated PostScript Interchange
- v. .qt - QuickTime Movie
- vi. .flc - Autodesk Animator FLIC Animation
- vii. .wpg - WordPerfect Graphic
- viii. .wmf - Windows Metafile
4. **Bitmap:** Bitmap images are real photographs that can be captured with equipment like digital cameras or scanners. Bitmap images are frequently unchangeable. Images in bitmap format take a lot of memory.

**Vector Graphics:** Computers are able to create vector drawings because they just use a little amount of memory. These pictures can be modified.

5. Windows Bitmap files are called BMP files. They are typically 8-bit colour images with 256 colours, and many applications, like Windows Paintbrush, can see them. The Windows desktop can have backgrounds made from BMP files.

The graphical file type GIF, which stands for Graphics Interchange Format, was first made famous by CompuServe. Almost all graphics tools, including xv, Lview, and Photoshop, can open GIF files, which are encoded, 256-color (8-bit) images that use a lossless compression approach.

- B.** 1. Animation is the process of creating the illusion of motion and change by displaying a sequence of static images or frames in rapid succession. These frames, often referred to as individual drawings or keyframes, are arranged in a specific order and played back at a high speed, typically 24 frames per second or higher, to simulate movement.

A moving image that is accompanied by sound, such as a television image, is referred to as "video." The video portion of a multimedia application efficiently transmits a lot of information. Digital video is useful for presenting real-world objects in multimedia applications. The video actually has the biggest demands for computer memory and bandwidth when it is uploaded to the internet. Similar to other data, the quality of digital video files can still be maintained while being saved on a computer. Digital video files can be transported through a computer network. The digital video clips are easy to change.

2. The use of a combination of text, music, video, graphics, and animation to convey information in an engaging and dynamic way is known as multimedia. Multimedia has a number of drawbacks, including:
  - It is Expensive. It utilises a variety of resources, some of which might be rather costly.
  - An excessive amount of data can be stored all at once due to how easy it is to utilise.
  - The size of your presentation's loading time is impacted by huge resources like music and video. If you include too much, you might need to use a bigger memory to store the data.
  - Compilation Time: Despite its versatility, creating the initial version takes time.
3. **Audio:** A multimedia application can require speech, music, and sound effects. The term "audio" or "sound" is used to describe them in relation to multimedia. Speaking is a wonderful teaching tool. Audio can be either analogue or digital. Analog audio or sound is the term used to describe the original sound signal. On a computer, digital sound is preserved. Therefore, digital audio is used for sound in multimedia applications.

**Text:** Text appears in all multi-media projects to some extent. To match the successful presentation of the multimedia program, the text may be presented in a variety of font styles and sizes.

**Video:** A moving image that is accompanied by sound, such as a television image, is referred to as "video." The video portion of a multimedia application efficiently transmits a lot of information. Digital video is useful for presenting real-world objects in multimedia applications. The video actually has the biggest demands for computer memory and bandwidth when it is uploaded to the internet. Similar to other data, the quality of digital video files can still be maintained while being saved on a computer. Digital video files can be transported through a computer network. The digital video clips are easy to change.

4. i. Simply go to the YouTube play page for your video, select "Share," and then "Embed." You may just copy the embed code, or you can experiment with a few customisable features, such as showing/hiding player controls or starting the movie at a specific moment (not necessarily the beginning).
- ii. Flash is a vector animation program designed specifically to produce animations for websites. They are ideal for the web since vector graphics are so lightweight. A Flash file can be inserted into HTML in a variety of ways.

The <object> and <embed> tags are typically used to add Flash movies to web pages. This technique is still often used to embed Flash material today due to its excellent compatibility with many browsers.

```
<object width="500" height="450">
```

```
<embed src="myfile.swf" width="500" height="450"> </embed>
```

```
</object>
```

iii. The <audio> tag can be used to embed audio in HTML. Syntax:

```
<audio src="filename" type="audiofiletype">
</audio>
```

5. Netscape introduced the <embed> tag to provide a way to embed various types of multimedia content, such as audio, video, and interactive plugins, directly into webpages.

The <object> tag specifies a container for an external resource. An image, a media player, a web page, or a plug-in application can all be considered external resources.

Example:

```
<embed src="audiofile.mp3" autostart="true" loop="true" hidden="true"> </object>
```

**C. Competency-based/Application-based questions:**

- i. Anita can make the website more attractive by adding visual elements such as images, graphics, and videos.
- ii. Google Chrome, Mozilla Firefox, Microsoft Edge, and Safari
- iii. Code to add a video is as follows:

```
<video width="320" height="240" controls>
  <source src="video.mp4" type="video/mp4">
</video>
```

## 3. Web Scripting — JavaScript

### Unsolved Exercise ?

#### Section A (Objective Type Questions)

- A.** 1. ii      2. i      3. iii      4. ii      5. ii
- B.** 1. typeof      2. comments  
3. argument      4. src  
5. 64-bit
- C.** 1. True      2. False      3. False      4. True      5. False

#### Section B (Subjective Type Questions)

- A.** 1. i. The if-else is a conditional statement. It allows you to specify a block of code to be executed if a specified condition is true, and another block of code to be executed if the condition is false.



Example:

```
<script>
var number = 21;
if (number%2==0)
    document.write("Even Number");
else
    document.write("Odd Number");
</script>
```

The switch statement is used to select one of the many code blocks that must be executed. Only one evaluation of the switch expression is performed, and its value is compared to the values/labels of each case. The associated code block is executed if a match is detected; else, the default code block is executed.

```
<script>
var val=12;
switch(val)
{
case 10: document.write("Smaller Value. It's 10");
    break;
case 12: document.write("Exact Value Matched. It's 12");
    break;
case 14: document.write("Larger Value. It's 14");
    break;
default: document.write("Invalid");
}
</script>
```

- ii. The = is the assignment operator that is used to assign a value to a variable. For example,  
a = 10

The == is a comparison operator that is used to compare the values of two variables for equality. For example, a = 10, b = 20

a == b

- 2. The pop() function removes the last element from an array. For example,

```
const languages = ["R", "C", "C++", "Basic"];
document.write(languages.pop());
```

Output: Basic

3. Two applications of JavaScript are as follows:

**Interactive Presentations:** The creation of interactive presentations as webpages is a relatively common use for JavaScript. HTML-based web-based slide decks can be created using the RevealJs and BespokeJs libraries. JavaScript makes it simple for users to create presentations as websites, even if they are not completely versed in a programming language.

**Server-side Applications:** Through the open-source runtime environment of Node.js, JavaScript is also utilised to create server-side software. For scalable and quick network applications, programmers can write, test, and debug code. JavaScript assists in managing HTTP requests and creating content. Node.js has been used by leading businesses for server infrastructure, including Walmart, PayPal, Uber, GoDaddy, and many more.

4. An array is a special variable, with the capacity to hold several values. For example,  
`const currency = new Array("Dollar", "Yen", "Pound");`

In terms of concept, objects are the same across all programming languages. They represent entities from the outside world that we want to express in our programs through properties, and methods. For instance, your object will include properties like name, age, address, id, etc., as well as methods like `updateAddress`, `updateName`, etc., if it is a student.

5. An event is defined as a change in an object's state. It occurs when a user hits a button. The act of responding to events is known as event handling. As a result, JavaScript uses event handlers to handle HTML events.

For example, a click event is handled with the help of `onclick` event handler.

- B.** 1. i. `substring()`: It extracts the substring using the starting and ending positions as parameters. If you leave the ending position blank, the string will be extracted from beginning to end.  
ii. `concat()`: It joins two strings.  
iii. `confirm()`: If you want the user to verify or accept information, a confirm box is frequently utilised. The user will have to either "OK" or "Cancel" in a confirm window to continue. The box returns true if the user selects "OK", otherwise false if the user clicks "Cancel."  
iv. `shift()`: It returns the first element of an array after removing it.

2. A block of code created specifically to carry out a specific task is referred to as a JavaScript function.

```
function showRobotMessage() {  
    alert("The biggest robot is Mononofu");  
}
```

3. The value of `p` will be 300. Loop will execute 6 times.

4. The output of the given code will be Loki.

Same logic using switch statement is as follows:

```
var a = 3;  
switch (a) {
```





```

case 1:
    document.write("Ultron");
    break;
case 2:
    document.write("Thor");
    break;
default:
    document.write("Loki");
    break;
}

```

5. i. output: NaN

Justification: When you perform any arithmetic operation with NaN, the result is always NaN.

ii. Output: false

Justification: The isFinite function determines whether the passed value is a finite number. It returns false if the value is Infinity, -Infinity, or NaN.

iii. Output: "Early evening good morning"

Justification: The replace method replaces only the first occurrence of the substring "morning" with "evening". Thus, "Early morning good morning" becomes "Early evening good morning".

iv. Output: ByeBye

Justification: The for loop condition  $i < 1$  is false when  $i$  is initialized to 1. As a result, the loop body `document.write("hello");` is never executed. After the loop, `document.write("ByeBye");` is executed, printing "ByeBye".

v. Output: nullWealth

Justification:

- `str.match("wealth");`
- The match method is case-sensitive.
- Since "wealth" (lowercase) is not found in the string "Health is Wealth", it returns null.
- `str.match("Wealth");`
- "Wealth" (uppercase 'W') is found in the string "Health is Wealth".
- The match method returns an array with the matched string. When used in `document.write`, it converts the array to a string, resulting in "Wealth".

6. JavaScript is typically embedded into an HTML document using the `<script>` tag. The script tag notifies the browser of the start and end of the scripting language for HTML documents.

The general attributes of the script tag are:

- src: Defines the address of the external file. This can be an absolute URL or a relative URL
- type: Defines the MIME type of the script.
- charset: Defines the character encoding of the external JavaScript file.

A script embedded in HTML with the

```
<html>
<head>
<script type="text/javascript">
-----Type your JavaScript Code here-----
</script>
</head>
<body>
-----Type your HTML code here-----
</body>
</html>
```

### C. Competency-based/Application-based questions:

1.
  - fruits.push("Guava");
  - fruits.shift();
  - document.write(fruits.length);
  - var veg = ["Potato", "Brinjal", "Gourd"];
  - var allItems = fruits.concat(veg);

2. The code for the function is:

```
function stringsinjava(string1, string2) {
    string1 = string1.toUpperCase();
    string2 = string2.toUpperCase();
    if (string2.includes(string1)) {
        document.write(`String1 found in String2: ${string1}<br>`);
    } else {
        document.write(`String1 not found in String2: ${string1}<br>`);
    }
    string1 = string1.replace(/A/g, '*');
    document.write(`String1 after replacing 'A' with '*': ${string1}<br>`);
    document.write(`First character of String2: ${string2.charAt(0)}<br>`);
}
```

```
}
// Example usage:
stringsinjava("Java", "I love JavaScript and Java");
```



## Lab Activity

1. Do it yourself.
2. Code is as follows:

```
<html>
<head>
  <title>String Length Finder</title>
  <script>
    function findStringLength() {
      var inputString = document.getElementById("inputTextBox").value;
      var lengthOfString = inputString.length;
      document.getElementById("result").innerText = "Length of the string: " + lengthOfString;
    }
  </script>
</head>
<body>
  <h1>String Length Finder</h1>
  <input type="text" id="inputTextBox" placeholder="Enter your string here">
  <button onclick="findStringLength()">OK</button>
  <p id="result"></p>
</body>
</html>
```

3. Code is as follows:

```
function generateRandomGreaterThan(num) {
  var randomNum = Math.ceil(Math.random() * (num * 2 - num) + num);
  return randomNum;
}
function findNextEven(num) {
  var nextEven = num % 2 === 0 ? num + 2 : num + 1;
  return nextEven;
}
function processInput() {
  var userInput = prompt("Enter a number:");
  var inputNum = parseInt(userInput);
  if (!isNaN(inputNum)) {
```



- ```

var randomGreater = generateRandomGreaterThan(inputNum);
var nextEven = findNextEven(inputNum);
alert("Random number greater than " + inputNum + ": " + randomGreater +
      "\nNext even number after " + inputNum + ": " + nextEven);
} else {
    alert("Invalid input. Please enter a valid number.");
}
}
// Call the function to start the process
processInput();

```
4. Code is as follows:
- ```

function displayGreeting() {
    var name = prompt("Enter your name:");
    if (name !== null && name !== "") {
        var paragraph = document.getElementById("para1");
        paragraph.textContent = "Happy New Year! " + name;
    } else {
        alert("Please enter your name to receive a greeting.");
    }
}

```
5. Do it yourself.  
 6. Do it yourself.  
 7. Do it yourself.

## 4. Advanced Features of Web-Design

### Unsolved Exercise ?

#### Section A (Objective Type Questions)

- A.** 1. ii      2. i      3. iii      4. iv      5. ii
- B.** 1. add-in      2. higher      3. SEO  
 4. publishing      5. Web hosting
- C.** 1. False      2. True      3. False      4. False      5. True

## Section B (Subjective Type Questions)

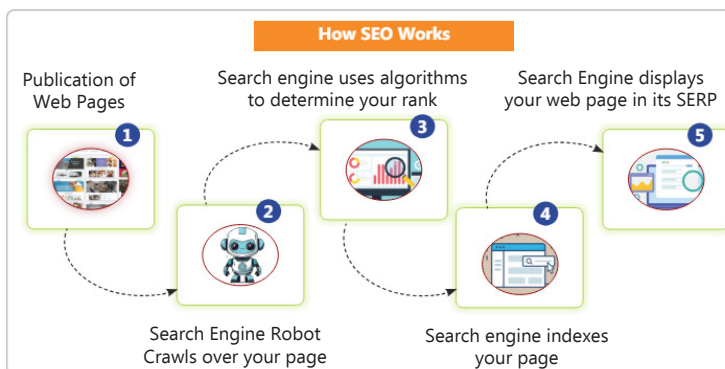
A. 1. The websites that provide these templates are listed below:

- <https://www.free-css.com/free-css-templates>
- <https://nicepage.com/css-templates>

Web Authoring Tools: Some of the popular web building tools are WordPress, Wix, Adobe Dreamweaver, KompoZer, Weebly, and Scribus.

2. i. An add-in is a software component that increases the functionality of larger programs.
  - ii. SEO or Search Engine Optimisation means the process of improving your website to increase its visibility on Google, Microsoft Bing, and other search engines whenever people search for products, services or any information.
  - iii. A web server is a software application or hardware device that serves content to clients over the World Wide Web.
  - iv. Spiders, also known as web crawlers or web robots, are automated programs used by search engines to systematically browse the World Wide Web, indexing web pages and collecting information about them.
3. You can import the above web package to another computer. Follow the given steps:
- Step 1: Open a new, empty website in MEW.
- Step 2: Click on Site → Import → Import from Web Package.
- Step 3: Select the web package file and then click Open.
- Step 4: In the Import Web Package dialogbox that opens, you can choose individual files or click on Select All and then click on Import.
4. Page transitions are an essential component of website navigation and user experience; they maintain visual coherence and keep visitors entertained while the website's assets load.
5. i. FTP
- ii. View → Site → Hyperlinks
- iii. Page Title and Description

B. 1.



2. A webpage design made with CSS (Cascading Style Sheets) is known as a CSS template. Web designers can quickly organize and style all website pages at once with the help of cascading styles sheets.

The websites that provide these templates are listed below:

<https://www.free-css.com/free-css-templates>

<https://nicepage.com/css-templates>

<https://templatemo.com/page/1>

<https://mobirise.com/html-templates/free-html-css-templates/>

<https://colorlib.com/wp/templates/>

<http://www.oswd.org/>

3. Web authoring tools tend to use a WYSIWYG (What You See Is What You Get) interface, which means that web pages can be created visually just like a desktop publishing program. For a designer with less experience, this is a simpler way to create web pages. Users only need to use the program's built-in features and add components to the visual interface. Web authoring tools automatically create difficult website building components like HTML and JavaScript. Some of the popular web building tools are WordPress, Wix, Adobe Dreamweaver, KompoZer, Weebly, and Scribus.
4. While developing web pages in HTML, you already have the experience of working with the code view. However, if you are using a text editor like Notepad++, you can enable IntelliSense to make your work easier. IntelliSense is a code completion tool with many features—list members, parameter info, quick info, autocomplete word. These functions let you see the details of the code you're using, track the parameters you've entered, and add property and method calls with just a few keystrokes.
5. A PSD template is a pre-made design using which users can produce customised files without worrying about the design's layout, composition, or other aesthetic details. PSD templates are multi-layered files that allow for independent editing. You can update the text or add new photos while leaving the design layer in its current state.

### C. Competency-based/Application-based questions:

Anita should invest in high-quality images and visual content showcasing her handmade purses and mojaris.

Anita can optimize her images by using descriptive filenames and adding relevant alt text to each image.

Anita can create a blog section on her website to regularly publish informative and engaging content related to handmade purses, mojaris, fashion trends, styling tips, artisan stories, etc.