Name: Class:

06 نوفمبر, 2023

Test

Please use a pencil to complete the test. Print your name on the Name line above. Read the instructions for each section carefully. When you have completed the test, place your test face down on your desk and raise your hand.

__ 1. 1

2.2 Multimedia Presentation

In this section, we briefly outline some effects to keep in mind for presenting multimedia content as well as some useful guidelines for content design [1,2].

_____ are presentations that include various types of media such as: text, images, videos, animations, or sound.

(A) Multimedia Presentations (B) Music Presentations

(C) Image Presentations (D) Sound Presentations

__ 2. 1

Video Transitions

Video *transitions* can be an effective way to indicate a change to the next section. Video transitions are syntactic means to signal "scene changes" and often carry semantic meaning. Many different types of transitions exist; the main types are *cuts, wipes, dissolves, fade-ins*, and *fade-outs*.

_____ is the special effect used to introduce each slide in a slide presentation.

(A) Animation (B) Bulleting

(C) Transition (D) Mapping

__ 3. 1

That is, not only is the color "opposite" in some sense (not the same sense as artists use), but if the text is bright, the background is dark, and vice versa.

Use _____ for text and background. Light text on a dark background is best.

(A) the same colors (B) similar colors

(C) opposite colors (D) contrasting colors

__ 1 4.

A dissolve replaces every pixel with a mixture over time of the two videos, gradually changing the first to the second. A fade-out is the replacement of a video by black (or white), and fade-in is its reverse. Most dissolves can be classified into two types, corresponding, for example, to *cross dissolve* and *dither dissolve* in Adobe Premiere video editing software.

Which transition would best suggest that time has passed between scenes ?

(A) Cross Dissolve (B) Fade to Black

(C) Standard Cut (D) Wipe

__ 1 5.

A wipe is a replacement of the pixels in a region of the viewport with those from another video. If the boundary line between the two videos moves slowly across the screen, the second video gradually replaces the first. Wipes can be left-to-right, right-to-left, vertical, horizontal, like an iris opening, swept out like the hands of a clock, and so on.

Which transition would best suggest a change in location?

(A) Fade to Black (B) Ripple

(C) Standard Cut (D) Wipe

__ 1 6.

Video Transitions

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The effects used to introduce SLIDES in a presentation are called .....

(A) transitions (B) transitions

(C) color & font

7. __/1

2.3 Data Compression

One of the most evident and important challenges of using multimedia is the necessity to compress data. Table 2.1 shows some values for standard-definition and for high-definition broadcast video. Clearly, we need excellent and fast data compression in

Table 2.1 Uncompressed video sizes

Standard definition video		
640×480 full color	=	922 kB/frame
@ 30 frames/s	=	28 MB/s
	=	221 Mb/s
× 3,600 s/h	=	100 GB/h
High definition video		
1,920×1,080 full color	=	6.2 MB/frame
@ 30 frames/s	=	187 MB/s
	=	1.5 Gb/s
× 3,600 s/h	=	672 GB/h

order to avoid such high data rates that cause problems for storage and networks, if we tried to share such data, and also for disk I/O.

Multimedia incorporate features like

A. ____ To convert one file to another

B. ____ To reduce the size of data to save space

C. ____ To minimize the time taken for a file to be downloaded

D. ____ To compress something by pressing it very hard

__ 8.
1

Figure 2.9a shows an original, uncompressed image taken by a digital camera that allows full-accuracy images to be captured, with no data compression at all. For this image, there are 364 rows and 485 columns of pixel data (reduced from 2424 by 3232 to better see the effect of Q); so with 8-bit accuracy in each of Red, Green, and Blue pixel values, the total file size is $364 \times 485 \times 3 = 529,620$ bytes (not including file-header information, which stores such values as the row and column size).

In Table 2.2 we show results using different Quality Factors in JPEG compression. Indeed, we can greatly shrink the file size down, but for small values of Q the resulting image is poor.

We can see in Fig. 2.9 that while $Q = 25$ is not terrible, if we insist on going down to a Quality Factor of $Q = 5$ we do end up with an unusable image. However this exercise does shows us something interesting: the color part, as opposed to the black-and-white (i.e., the grayscale) may well be the less noticeable problem for high compression ratios (i.e., low amounts of data surviving compression). We will see how color and grayscale are in fact treated differently, in Chap. 9.

Compression indeed saves the day, but at a price too. JPEG compression can effect a compression ratio of 25:1 with little loss of quality. For video compression the MPEG video compression standard, set out in Chap. 11, can produce a compression ratio of 100:1 while retaining reasonable quality (Fig. 2.9).

However, let us look at how expensive image and video processing is in terms of processing in the CPU. Suppose we have an image whose pixels we wish to darken, by a factor of 2. The following code fragment is pseudocode for such an operation:

in audio and video compression, each frame is divided into small grids, called picture elements or

A. ____ frame

B. ____ packets

C. ____ pixels

D. ____ mega pixels

__ 9.
1

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order to avoid such high data rates that cause problems for storage and networks, if we tried to share such data, and also for disk I/O.

How much compression is required? In effect, this depends on the application, on the capability of the viewing computer and display, and on the bandwidth (in bits per second) available to perhaps stream and certainly to view the decompressed result.

In the ubiquitous JPEG image compression standard the amount of compression is controlled by a value Q in the range 0–100 (and see Sect. 9.1 for details). The "quality" of the resulting image is best for Q = 100 and worst for Q = 0.

Joint Photographic Experts Group (JPEG) is used to compress

A. ____ music

B. ____ pictures

C. ____ images

D. ____ frames

__ 10.
1

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What would you use compression for?

A. ____ Making an image file smaller

B. ____ Modifying an image

__ 11.
1

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Compression in general makes it _____ to send, upload and stream data

A. ____ Quicker

B. ____ Slower

__ 12.
1

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In the ubiquitous JPEG image compression standard the amount of compression is controlled by a value Q in the range 0–100 (and see Sect. 9.1 for details). The "quality" of the resulting image is best for Q = 100 and worst for Q = 0.

Which of the following is a true statement about data compression?

A. ____ Data compression techniques can be used to reduce the size of a file for storage or transmission

B. ____ Data compression techniques can only be used for certain types of data

C. ____ Data compression techniques cannot be applied to files being transmitted over the internet.

13. __
1

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order to avoid such high data rates that cause problems for storage and networks, if we tried to share such data, and also for disk I/O.

Data compression means to _____ the file size

__ 1 14. Therefore, we will consider some popular authoring tools. Since the first step in creating a multimedia application is probably creation of interesting video clips, we start off with looking at a video editing tool. This is not really an authoring tool, but video creation is so important that we include a small introduction to one such program.

The tools we look at are the following (which all happen to be Adobe products):

- Premiere
- Director
- Flash.

Which of the following are examples of time-based authoring tools?

(A) Flash and Director
(B) Flash and Adobe Photoshop
(C) Director and Adobe Photoshop
(D) Adobe Premiere and Sound Editor

__ 1 15. **Director Objects**

Director has two main types of objects: those created in Lingo and those on the Score. Parent scripts are used to create a new object in Lingo. A behavior can be transformed into a parent script by changing the script type in the Property Inspector. Parent scripts are different from other behaviors, in that parameters are passed into the object when it is created in Lingo script.

In multimedia authoring systems, multimedia elements and events are often treated as _____.

(A) item
(B) objects
(C) attributes
(D) script

__ 1 16. Therefore, we will consider some popular authoring tools. Since the first step in creating a multimedia application is probably creation of interesting video clips, we start off with looking at a video editing tool. This is not really an authoring tool, but video creation is so important that we include a small introduction to one such program.

The tools we look at are the following (which all happen to be Adobe products):

- Premiere
- Director
- Flash.

Which of the following is a multimedia authoring tool?

(A) Adobe Acrobat Reader
(B) Adobe Director
(C) Adobe Photoshop
(D) CorelIDRAW

__ 1 17.

This text is primarily concerned with principles of multimedia—the fundamentals to be grasped for a real understanding of this subject. Nonetheless, we need real vehicles for showing this understanding, and straight programming in C++ or Java is not always the best way of showing your knowledge. Most introductory multimedia courses ask you to at least start off with delivering some multimedia product (e.g., see Exercise 10).

Therefore, we will consider some popular authoring tools. Since the first step in creating a multimedia application is probably creation of interesting video clips, we start off with looking at a video editing tool. This is not really an authoring tool, but video creation is so important that we include a small introduction to one such program.

_____ provides the important framework for organizing and editing elements of your multimedia project, including graphics, sounds, animations and video clips.

(A) Multimedia development process
(B) Multimedia skills
(C) Multimedia authoring tools
(D) Multimedia presentations

__ 1 18.

The *Actions* category contains many programming constructs, such as `Loops` and `Goto` statements. Other actions are also included, similar to those in typical high-level, event-driven programming languages, such as Visual Basic. The *Operators* category includes many comparison and assignment operators for variables. This allows you to perform operations on variables in the ActionScript.

The *Functions* category contains built-in functions included in Flash that are not specific to a Flash object. The *Properties* section includes all the global variables predefined in Flash. For example, to refer to the current frame, the variable `_currentframe` is defined. The *Objects* section lists all objects, such as movie clips or strings and their associated functions.

Buttons need ActionScripts—event procedures—so that pressing the button will cause an effect. It is straightforward to attach a simple action, such as replaying the Flash movie, to a button.

Action Script which is based upon the international ECMAScript can be found in ___.

(A) Adobe Flash
(B) Adobe Director
(C) Adobe Premier
(D) Adobe Illustrator

__ 1 19. The *Actions* category contains many programming constructs, such as `Loops` and `Goto` statements. Other actions are also included, similar to those in typical high-level, event-driven programming languages, such as Visual Basic. The *Operators* category includes many comparison and assignment operators for variables. This allows you to perform operations on variables in the ActionScript.

Authoring tools that offer _____ or interpreted scripting environment for navigation control and for enabling user inputs are more powerful.

(A) a very low language
(B) an assembler language
(C) a subset of html
(D) a very high level language

__ 1 20. stream live television to paid subscribers. China, the largest *Internet Protocol TV* (IPTV) market by subscribers (12.6 million) to date, is probably the most vigorous market, seeing a wide range of technologies competing with each other and with dedicated IPTV networks.

IPTV Stands for?

(A) Internet Protocol Television
(B) Intranet Protocol Television
(C) Internet Pakistan Television
(D) None of these

__ 1 21. The *Actions* category contains many programming constructs, such as `Loops` and `Goto` statements. Other actions are also included, similar to those in typical high-level, event-driven programming languages, such as Visual Basic. The *Operators* category includes many comparison and assignment operators for variables. This allows you to perform operations on variables in the ActionScript.

Action Script

(A) object oriented programming
(B) 3d animation software
(C) dtp software
(D) a font style

__ 1 22.

Tweening

There are two types of tweening: *shape* and *movement* tweening. Shape tweening allows you to create a shape that continuously changes to a different shape over time. Movement tweening allows you to place a symbol in different places on the Stage in different keyframes. Flash automatically fills in the keyframes along a path between the start and finish. More advanced tweening allows control of the path as well as of acceleration. Movement and shape tweenings can be combined for additional effect.

_____is an action that requires calculating the number of frames between keyframes and the path the
action takes, and then actually sketching with pencil the series of progressively different outlines.

(A) Tweening
(B) Tweeking
(C) Threading
(D) Testing

__ 1 23.

Tweening

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Mask animation involves the manipulation of a layer mask—a layer that selectively hides portions of another layer. For example, to create an explosion effect, you could use a mask to cover all but the center of the explosion. Shape tweening could then expand the mask, so that eventually the whole explosion is seen to take place. Figure 2.19 shows a scene before and after a tweening effect is added.

Tweening progresses, the action sequence is checked by flipping through the_____

(A) Slides
(B) Frames
(C) Layers
(D) Work A reas

__ 1 24.

Buttons

To create a simple button, create a new symbol with the button behavior. The Timeline window should have four keyframes: `up`, `down`, `over`, and `hit`. These keyframes show different images of the button when the specified action is taken. Only the `up` keyframe is required and is the default; all others are optional. A button can be drawn by selecting the rectangular tool in the Tools window and then dragging a rectangle onto the Stage.

To add images, so that the button's appearance will change when an event is triggered, click on the appropriate keyframe and create the button image. After at least one keyframe is defined, the basic button is complete, although no action is yet attached to it. Actions are discussed further in the ActionScripts section below.

Creating a symbol from other symbols is similar to creating a scene: drag the desired symbols from the Library onto the Stage. This allows the creation of complex symbols by combining simpler symbols.

_____are the objects, such as blocks of text, a pretty blue triangle, or a photograph, that make things happen when they are clicked.

(A) Bullets
(B) Buttons
(C) Text boxes
(D) Tool boxes

__ 1 25.

The *Actions* category contains many programming constructs, such as `Loops` and `Goto` statements. Other actions are also included, similar to those in typical high-level, event-driven programming languages, such as Visual Basic. The *Operators* category includes many comparison and assignment operators for variables. This allows you to perform operations on variables in the ActionScript.

What is the name of the programming / scripting language of Flash?

(A) Script language /li>
(B) Action script
(C) Programming language
(D) Programming Script

__ 1 26.

Tweening

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What method of animation creates the in-between frames when you create the start and end points of the animation?

(A) Motion
(B) classic
(C) shape
(D) Tweening

__ 1 27.

Timeline Window

The Timeline window manages the layers and timelines of the scene. The left portion of the Timeline window consists of one or more layers of the Stage, which enables you to easily organize the Stage's contents. Symbols from the Library can be dragged onto the Stage, into a particular layer. For example, a simple movie could have two layers, the background and foreground. The background graphic from the library can be dragged onto the stage when the background layer is selected.

Another useful function for layering is the ability to lock or hide a layer. Pressing the circular buttons next to the layer name can toggle their hidden/locked state.

What part of the menu bar allows you to hide/unhide panels?

(A) View
(B) Edit
(C) Window
(D) None of the Above

__ 1 28.

Tweening

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This ideals with the rotation and movement of the object from one point to another in specific frames.

(A) Tweening
(B) Shape Tween
(C) Motion Tween
(D) Transition

__ 1 29. **Tweening**

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This ideals with the rotation and movement of the object from one point to another in specific frames.

(A) Tweening

(B) Shape Tween

(C) Motion Tween

(D) Transition