

## CHAPTER 6:

# GRAPHICS, DIGITAL MEDIA, AND MULTIMEDIA

### Multiple Choice:

1. \_\_\_\_\_ created the World Wide Web, the URL scheme, HTML and HTTP

- A. Bill Gates
- B. Andy Grove
- C. Jeff Bezos
- D. Tim Berners-Lee

**Answer:** D     **Reference:** Tim Berners-Lee Weaves the Web for Everybody     **Difficulty:** Challenging

2. Pixels are:

- A. dots of ink from an inkjet printer.
- B. dots on a computer screen arranged in rows.
- C. points of light used by a cordless, wireless, optical mouse.
- D. points on the end of a PDA handheld device.

**Answer:** B     **Reference:** Painting: Bitmapped Graphics     **Difficulty:** Easy

3. A bit can contain one of two possible values:

- A. 0 or 1.
- B. 0 or 256.
- C. 1 or 2.
- D. A or B.

**Answer:** A     **Reference:** Painting: Bitmapped Graphics     **Difficulty:** Easy

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4. When a program assigns 8 bits to a pixel, that pixel can display one of up to \_\_\_\_\_ different shades of gray.
- A. 8
  - B. 64
  - C. 256
  - D. 1,024

**Answer:** C     **Reference:** Painting: Bitmapped Graphics

**Difficulty:** Challenging

5. The density of pixels on a screen is known as:
- A. resolution.
  - B. pixility.
  - C. pixel depth.
  - D. “jaggies”.

**Answer:** A     **Reference:** Painting: Bitmapped Graphics

**Difficulty:** Moderate

6. The number of bits devoted to each pixel is called:
- A. resolution.
  - B. bit depth.
  - C. byte depth.
  - D. vector graphics.

**Answer:** B     **Reference:** Painting: Bitmapped Graphics

**Difficulty:** Moderate

7. A(n) \_\_\_\_\_ graphic is composed of a grid of dots.
- A. roster
  - B. vector
  - C. object-oriented
  - D. bitmap

**Answer:** D     **Reference:** Painting: Bitmapped Graphics

**Difficulty:** Moderate

8. A bitmap graphic is also called a(n) \_\_\_\_\_ graphic.

- A. vector
- B. raster
- C. analog
- D. 3-D

**Answer: B**      **Reference:** Painting: Bitmapped Graphics      **Difficulty:** Moderate

9. Software that stores lines and shapes rather than individual pixels is known as:

- A. vector graphics software.
- B. raster graphics software.
- C. bit-mapped graphics software.
- D. resolution software.

**Answer: A**      **Reference:** Drawing: Object-Oriented Graphics      **Difficulty:** Moderate

10. \_\_\_\_\_ is a standard page-description language built into many high-end output devices.

- A. Subscript
- B. XML
- C. HTML
- D. PostScript

**Answer: D**      **Reference:** Drawing: Object-Oriented Graphics      **Difficulty:** Easy

11. An artist can use \_\_\_\_\_ software to draw, rotate, stretch and combine model objects inside a complex “walk through” environment.

- A. 3-D modeling
- B. photo database
- C. photo management
- D. CAM

**Answer: A**      **Reference:** 3-D Modeling Software      **Difficulty:** Moderate

**12.** CAD software is primarily used in:

- A. engineering.
- B. software development.
- C. desktop publishing.
- D. accounting.

**Answer:** A     **Reference:** CAD/CAM: Turning Pictures into Products     **Difficulty:** Moderate

**13.** CAD stands for:

- A. central-assisted design.
- B. computer application design.
- C. computer-aided database.
- D. computer-aided design.

**Answer:** D     **Reference:** CAD/CAM: Turning Pictures into Products     **Difficulty:** Moderate

**14.** CAM stands for:

- A. computer-assembly manufacturing.
- B. computer application and manifestation.
- C. computer-aided manufacturing.
- D. computer application and marketing.

**Answer:** C     **Reference:** CAD/CAM: Turning Pictures into Products     **Difficulty:** Moderate

**15.** Guidelines for creating a first-rate PowerPoint presentation include all of the following EXCEPT:

- A. consider using predesigned templates for a consistent design.
- B. focus each slide on one idea.
- C. limit yourself to seven lines per list.
- D. use a large variety and quantity of sounds, animation, and fonts.

**Answer:** D     **Reference:** Working Wisdom: Making Powerful Presentations     **Difficulty:** Easy

16. PowerPoint is an example of:

- A. presentation graphics software.
- B. animation software.
- C. photo management software.
- D. 3-D modeling software.

**Answer:** A     **Reference:** Presentation Graphics: Bringing Lectures to Life     **Difficulty:** Easy

17. The creation of a presentation of slides is done using:

- A. desktop publishing software.
- B. picture editing software.
- C. presentation graphics software.
- D. 3-D modeling software.

**Answer:** C     **Reference:** Presentation Graphics: Bringing Lectures to Life     **Difficulty:** Easy

18. The free add-on program for PowerPoint called \_\_\_\_\_ lets users publish video presentations to the Web or CD/DVD.

- A. Flash
- B. Producer
- C. FrontPage
- D. Director MX

**Answer:** B     **Reference:** Presentation Graphics: Bringing Lectures to Life     **Difficulty:** Challenging

19. Programs such as PowerPoint are also known as:

- A. 3-D modeling software.
- B. vector graphics programs.
- C. Web design tools.
- D. multimedia-presentation tools.

**Answer:** D     **Reference:** Presentation Graphics: Bringing Lectures to Life     **Difficulty:** Moderate

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20. The creation of motion from still pictures is called:

- A. sampling.
- B. 3-D modeling.
- C. transition.
- D. animation.

**Answer:** D      **Reference:** Animation: Graphics in Time

**Difficulty:** Moderate

21. In comparison to animated GIFs, vector-graphics animations

- A. download slower.
- B. occupy more space.
- C. describe images in terms of objects and locations.
- D. describe images in terms of colored pixels.

**Answer:** C      **Reference:** Animation: Graphics in Time

**Difficulty:** Challenging

22. Hardware used to convert analog signals into digital data is called a(n)

- A. analoger.
- B. digitizer.
- C. FireWire medium.
- D. broadcast converter.

**Answer:** B      **Reference:** Analog and Digital Video

**Difficulty:** Moderate

23. When you use a digital camera, your photo is stored as a \_\_\_\_\_ image.

- A. bitmapped
- B. vector
- C. raster
- D. roster

**Answer:** A      **Reference:** Image Processing: Photographic Editing by Computer

**Difficulty:** Easy

24. When something is displayed at the same time as it is created, accessed, or imported, it is known as:

- A. digital time.
- B. real time.
- C. online time.
- D. batch time.

**Answer:** B      **Reference:** Analog and Digital Video      **Difficulty:** Moderate

25. A video project usually starts with an outline and a \_\_\_\_\_ that describes the action.

- A. story edit
- B. flow chart
- C. storyboard
- D. flow script

**Answer:** C      **Reference:** Video Production Goes Digital      **Difficulty:** Easy

26. Adobe Premiere, Apple iMovie, and Microsoft Windows Movie Maker 2 are examples of \_\_\_\_\_ software.

- A. video editing
- B. presentation
- C. graphics
- D. digital camera

**Answer:** A      **Reference:** Video Production Goes Digital      **Difficulty:** Easy

27. What is the process that condenses files so they can be stored in less space and transmitted over the Internet at a faster rate?

- A. Data downloading
- B. Data compression
- C. Digitization
- D. Defragmentation

**Answer:** B      **Reference:** How It Works: Data Compression      **Difficulty:** Moderate

28. Before condensed files can be opened and used, they must be:

- A. decompressed.
- B. zipped.
- C. upgraded.
- D. defragmented.

**Answer:** A     **Reference:** How It Works: Data Compression

**Difficulty:** Moderate

29. Computer sounds can be synthesized or:

- A. morphed.
- B. animated.
- C. analoged.
- D. digitized.

**Answer:** D     **Reference:** The Synthetic Musician: Computers and Audio

**Difficulty:** Easy

30. The process of copying files to a CD is known as:

- A. burning.
- B. zipping.
- C. digitizing.
- D. ripping.

**Answer:** A     **Reference:** Digital Audio Basics

**Difficulty:** Easy

31. All EXCEPT \_\_\_\_\_ can squeeze music files into a fraction of their original size.

- A. AAC
- B. MP3
- C. WMA
- D. P2P

**Answer:** D     **Reference:** Digital Audio Basics

**Difficulty:** Challenging



32. Music played on a computer but never downloaded is known as:

- A. P2P.
- B. streaming.
- C. MP3.
- D. electronica.

**Answer:** B     **Reference:** Working Wisdom: Digital Audio Do's and Don'ts     **Difficulty:** Moderate

33. Streaming audio

- A. stops playing when the user disconnects from the Internet.
- B. is automatically stored on the local computer.
- C. must be recorded and played using a synthesizer.
- D. must be stored on a MIDI instrument.

**Answer:** A     **Reference:** Working Wisdom: Digital Audio Do's and Don'ts     **Difficulty:** Moderate

34. The following are all used to compress music files EXCEPT:

- A. Advanced Audio Codec
- B. MP3
- C. Windows Media Audio
- D. MIDI

**Answer:** D     **Reference:** Digital Audio Basics     **Difficulty:** Moderate

35. \_\_\_\_\_ commands can be interpreted by a variety of music synthesizers.

- A. Windows Media Audio
- B. MIDI
- C. MP3
- D. Advanced Audio Codec

**Answer:** B     **Reference:** Samplers, Synthesizers, and Sequencers: Digital Audio and MIDI  
**Difficulty:** Easy

36. MIDI stands for:
- A. Multimedia Instruction and Digital Interface.
  - B. Musical Instrument Digital Interface.
  - C. Musical Integrated Direct Interface.
  - D. Musical Interface Digitally Integrated.

**Answer:** B     **Reference:** Samplers, Synthesizers, and Sequencers: Digital Audio and MIDI  
**Difficulty:** Moderate

37. A standard interface used to send commands between computers and musical instruments is:
- A. Hypermedia.
  - B. RealAudio.
  - C. MIDI.
  - D. AAC.

**Answer:** C     **Reference:** Samplers, Synthesizers, and Sequencers: Digital Audio and MIDI  
**Difficulty:** Moderate

38. Hypertext was developed to allow textual information to be linked in a \_\_\_\_\_ manner.
- A. sequential
  - B. real time
  - C. nonsequential
  - D. linear

**Answer:** C     **Reference:** Hypertext and Hypermedia     **Difficulty:** Moderate

39. The term \_\_\_\_\_ refers to a combination of text, graphics, animation, video, music, voice, and sound effects used to communicate a message.
- A. multitasking
  - B. hyperlinking
  - C. multicasting
  - D. multimedia

**Answer:** D     **Reference:** Interactive Multimedia: What Is It?     **Difficulty:** Easy

40. The \_\_\_\_\_ world creates the illusion of immersion.

- A. virtual
- B. hypermedia
- C. MIDI
- D. CIM

**Answer:** A      **Reference:** Inventing the Future: Shared Virtual Spaces      **Difficulty:** Easy

41. \_\_\_\_\_ combines virtual reality techniques with new vision technologies allowing users to move around in shared virtual spaces, while keeping their unique points of view.

- A. Streaming
- B. Hypermedia
- C. CAM
- D. Tele-immersion

**Answer:** D      **Reference:** Inventing the Future: Shared Virtual Spaces      **Difficulty:** Easy

**Fill in the Blank:**

42. \_\_\_\_\_ was the developer of HTTP, HTML and the Web.

**Answer:** Tim Berners-Lee      **Reference:** Tim Berners-Lee Weaves      **Difficulty:** Challenging

43. The \_\_\_\_\_ is an organization dedicated to helping evolve the Web in positive directions.

**Answer:** W3C or World Wide Web Consortium      **Reference:** Tim Berners-Lee Weaves      **Difficulty:** Challenging

44. A picture shown on a computer screen is made up of a number of dots called \_\_\_\_\_.

**Answer:** pixels      **Reference:** Painting: Bitmapped Graphics      **Difficulty:** Moderate

45. Bitmapped graphics are also called \_\_\_\_\_ graphics.

**Answer:** raster      **Reference:** Painting: Bitmapped Graphics      **Difficulty:** Challenging

46. The number of bits devoted to each pixel is called \_\_\_\_\_.

**Answer:** bit depth or color depth      **Reference:** Painting: Bitmapped Graphics      **Difficulty:** Challenging

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47. The density of the pixels for a monitor is known as \_\_\_\_\_.

**Answer:** resolution                      **Reference:** Painting: Bitmapped Graphics                      **Difficulty:** Moderate

48. DPI stands for \_\_\_\_\_.

**Answer:** dots per inch                      **Reference:** Painting: Bitmapped Graphics                      **Difficulty:** Moderate

49. \_\_\_\_\_ photographs, drawings, text, or company logos should not be used without permission from the creator.

**Answer:** Copyrighted                      **Reference:** Working Wisdom: Creating Smart Art                      **Difficulty:** Easy

50. \_\_\_\_\_ software allows a photographer to manipulate digital photos and other high-resolution images with tools similar to those found in paint programs.

**Answer:** Image-processing                      **Reference:** Image Processing: Photographic Editing by Computer  
**Difficulty:** Challenging

51. When printing an object-oriented graphic, resolution is limited only by the \_\_\_\_\_ device.

**Answer:** output                      **Reference:** Drawing: Object-Oriented Graphics                      **Difficulty:** Moderate

52. \_\_\_\_\_ graphic software stores a picture not as a collection of dots, but as a collection of lines and shapes.

**Answer:** Vector or object-oriented                      **Reference:** Drawing: Object-Oriented Graphics                      **Difficulty:** Moderate

53. A standard page-description language for describing text fonts, illustrations, and other elements of the printed page is called \_\_\_\_\_.

**Answer:** PostScript                      **Reference:** Drawing: Object-Oriented Graphics                      **Difficulty:** Challenging

54. \_\_\_\_\_ software is used by engineers to design products.

**Answer:** CAD                      **Reference:** CAD/CAM: Turning Pictures into Products                      **Difficulty:** Moderate

55. \_\_\_\_\_ software is used to control manufacturing of products.

**Answer:** CAM                      **Reference:** CAD/CAM: Turning Pictures into Products                      **Difficulty:** Moderate

56. CIM stands for \_\_\_\_\_.

**Answer:** computer-integrated manufacturing                      **Reference:** CAD/CAM: Turning Pictures into Products  
**Difficulty:** Moderate

57. The combination of CAD and CAM is called \_\_\_\_\_.

**Answer:** CIM                      **Reference:** CAD/CAM: Turning Pictures into Products                      **Difficulty:** Moderate

58. SVG stands for \_\_\_\_\_.

**Answer:** Scalable Vector Graphics    **Reference:** Animation: Graphics in Time    **Difficulty:** Challenging

59. A(n) \_\_\_\_\_ converts analog video signals from a TV broadcast or videotape into digital data.

**Answer:** video digitizer    **Reference:** Analog and Digital Video    **Difficulty:** Moderate

60. In \_\_\_\_\_ time, a video digitizer imports signals from a source and displays them on the computer screen immediately.

**Answer:** real    **Reference:** Analog and Digital Video    **Difficulty:** Moderate

61. When a video clip merges and transforms into another image, it is known as \_\_\_\_\_.

**Answer:** morphing    **Reference:** Video Production Goes Digital    **Difficulty:** Moderate

62. A(n) \_\_\_\_\_ describes the action, dialogue and music for each scene of a video.

**Answer:** storyboard    **Reference:** Video Production Goes Digital    **Difficulty:** Moderate

63. \_\_\_\_\_ rate refers to the number of sound “snapshots” the sound recording equipment takes each second.

**Answer:** Sampling    **Reference:** Digital Audio Basics    **Difficulty:** Moderate

64. To compress a word into a two-byte code, the computer looks up every word in the code \_\_\_\_\_.

**Answer:** dictionary    **Reference:** How it Works: Data Compression    **Difficulty:** Moderate

65. \_\_\_\_\_ is the standard interface which enables a computer to connect to different digital musical instruments.

**Answer:** MIDI    **Reference:** Samplers, Synthesizers, and Sequencers: Digital Audio and MIDI  
**Difficulty:** Easy

66. Electronica is sequenced music that is designed from the ground up with \_\_\_\_\_ audio technology.

**Answer:** digital    **Reference:** Digital Audio Do’s and Don’ts    **Difficulty:** Moderate

67. When using MIDI instruments, \_\_\_\_\_ is used to correct a musician’s timing.

**Answer:** quantizing    **Reference:** How It Works: Computer-Based Music Production  
**Difficulty:** Challenging

68. In 1987, Apple introduced HyperCard, a(n) \_\_\_\_\_ system that combined text, numbers, graphics, animations, sound effects, music and other media into hyperlinked documents.

**Answer:** hypermedia    **Reference:** Hypertext and Hypermedia    **Difficulty:** Moderate

69. \_\_\_\_\_ software is used to create and edit documents that can include graphics, text, video clips and sounds.

**Answer:** Multimedia authoring **Reference:** Multimedia Authoring: Making Mixed Media

**Difficulty:** Moderate

70. \_\_\_\_\_ combines virtual reality techniques with new vision technologies so that a user can keep his/her own perspective while moving around virtual spaces that he/she is sharing with others.

**Answer:** Tele-immersion **Reference:** Inventing the Future: Shared Virtual Spaces **Difficulty:** Challenging

71. \_\_\_\_\_ reality is the use of a computer display to add virtual information to a user's sensory perceptions.

**Answer:** Augmented **Reference:** Inventing the Future: Shared Virtual Spaces **Difficulty:** Challenging

72. AR stands for \_\_\_\_\_.

**Answer:** augmented reality **Reference:** Inventing the Future: Shared Virtual Spaces **Difficulty:** Challenging

**Matching:**

73. Match the following software programs with their capabilities:

- |                                    |   |
|------------------------------------|---|
| I. image-processing software       | A. can store a picture as a collection of lines and shapes                      |
| II. painting software              | B. can create pixels on the screen using a pointing device                      |
| III. sequencing software           | C. can eliminate "red eye" and brush away blemishes                             |
| IV. drawing software               | D. can create objects or models that can be rotated or stretched                |
| V. 3-D modeling software           | E. can turn a computer into a musical composing, recording, and editing machine |
| VI. presentation-graphics software | F. can automate the creation of visual aids for lectures                        |

**Answers:** C, B, E, A, D, F

**Reference:** Multiple locations

**Difficulty:** Challenging

74. Match the following software programs with their capabilities:

- |                                    |  |
|------------------------------------|--|
| I. CIM                             | A. squeezes data into smaller sizes  |
| II. compression software           | B. used to automate a factory using computers to both design and manufacture                         |
| III. CAD                           | C. used to control the manufacturing of parts  |
| IV. video-editing software         | D. helps automate the creation of visual aids for lectures, speeches, etc.                           |
| V. CAM                             | E. used by engineers and designers to design products  |
| VI. presentation-graphics software | F. used to combine clips into coherent scenes, splice together scenes, and insert visual transitions |

**Answers:** B, A, E, F, C, D

**Reference:** Multiple locations

**Difficulty:** Challenging

75. Match the following terms to their meanings:

- |                   |   |
|-------------------|---|
| I. compressing    | A. expanding a file into its original form                      |
| II. streaming     | B. combining text, graphics, animation, video, music, and voice |
| III. multimedia   | C. playing audio or video in real time                          |
| IV. decompressing | D. squeezing data into a smaller file                           |
| V. morphing       | E. transforming an audio signal into a sound file               |
| VI. sampling      | F. displaying images as they are imported                       |
| VII. real time    | G. changing and merging one computer image into another         |

**Answers:** D, C, B, A G, E, F

**Reference:** Multiple locations

**Difficulty:** Moderate