|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. ​\_\_\_\_\_\_\_\_\_ refers to the symbols that represent people, events, things, and ideas.   |  |  | | --- | --- | | *ANSWER:* | Data​ | | *REFERENCES:* | DATA REPRESENTATION BASICS | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2. Data refers to the symbols that represent people, events, things, and ideas.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *REFERENCES:* | DATA REPRESENTATION BASICS | |

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| --- | --- | --- | --- | --- |
| 3. Data becomes \_\_\_\_\_\_\_ when it is presented in a format that people can understand and use.​   |  |  | | --- | --- | | *ANSWER:* | information​ | | *REFERENCES:* | DATA REPRESENTATION BASICS | |

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| --- | --- | --- | --- | --- |
| 4. Data \_\_\_\_\_\_\_\_\_\_ refers to the form in which data is stored, processed, and transmitted.​   |  |  | | --- | --- | | *ANSWER:* | representation​ | | *REFERENCES:* | DATA REPRESENTATION BASICS | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 5. Digital data can be \_\_\_\_\_\_\_\_\_\_ that have been converted into discrete digits such as 0s and 1s.​   |  |  |  | | --- | --- | --- | |  | a. | ​text | |  | b. | ​numbers | |  | c. | ​graphics, sound, and video | |  | d. | all of the above​ |  |  |  | | --- | --- | | *ANSWER:* | d | | *REFERENCES:* | DATA REPRESENTATION BASICS | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 6. The process of converting information, such as text, numbers, photos, or music, into digital data that can be manipulated by electronic devices is called \_\_\_\_\_\_\_\_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​binary | |  | b. | ​digitization | |  | c. | representation​ | |  | d. | ​none of the above |  |  |  | | --- | --- | | *ANSWER:* | b | | *REFERENCES:* | DATA REPRESENTATION BASICS | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 7. A file name extension indicates the file format.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *REFERENCES:* | DATA REPRESENTATION BASICS | |

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| --- | --- | --- | --- | --- |
| 8. The 0s and 1s used to represent digital data are referred to as \_\_\_\_\_\_\_\_\_ digits.​   |  |  | | --- | --- | | *ANSWER:* | binary​ | | *REFERENCES:* | DATA REPRESENTATION BASICS | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 9. \_\_\_\_\_\_\_\_ data consists of numbers that can be used in arithmetic operations.​   |  |  |  | | --- | --- | --- | |  | a. | ​Text | |  | b. | ​Digital | |  | c. | ​Numeric | |  | d. | Binary​ |  |  |  | | --- | --- | | *ANSWER:* | c | | *REFERENCES:* | REPRESENTING NUMBERS | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10. The binary number system has only two digits: 1 and 2.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *REFERENCES:* | REPRESENTING NUMBERS | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 11. The \_\_\_\_\_\_\_ number system allows digital devices to represent virtually any number simply by using 0s and 1s.​   |  |  |  | | --- | --- | --- | |  | a. | ​digital | |  | b. | text​ | |  | c. | ​numeric | |  | d. | ​binary |  |  |  | | --- | --- | | *ANSWER:* | d | | *REFERENCES:* | REPRESENTING NUMBERS | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 12. Character data is composed of letters, symbols, and numerals that are used in calculations.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *REFERENCES:* | REPRESENTING TEXT | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 13. ASCII requires \_\_\_\_\_\_\_\_\_\_ bits for each character.​   |  |  |  | | --- | --- | --- | |  | a. | ​two | |  | b. | ​six | |  | c. | ​seven | |  | d. | ​ten |  |  |  | | --- | --- | | *ANSWER:* | c | | *REFERENCES:* | REPRESENTING TEXT | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 14. Unicode uses\_\_\_\_\_\_\_\_ bits and provides codes for 65,000 characters.​   |  |  |  | | --- | --- | --- | |  | a. | ​seven | |  | b. | ​eight | |  | c. | ​ten | |  | d. | ​sixteen |  |  |  | | --- | --- | | *ANSWER:* | d | | *REFERENCES:* | REPRESENTING TEXT | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 15. Plain, unformatted text is sometimes called ASCII text.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *REFERENCES:* | REPRESENTING TEXT | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 16. ASCII text files contain formatting.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *REFERENCES:* | REPRESENTING TEXT | |

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| 17. In a formatted text file,  \_\_\_\_\_\_\_\_ signals the beginning and end of a formatting command.​   |  |  | | --- | --- | | *ANSWER:* | delimiter, delimiters​ | | *REFERENCES:* | REPRESENTING TEXT | |

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| 18. All of the data stored and transmitted by digital devices is encoded as bits.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *REFERENCES:* | BITS AND BYTES | |

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| 19. A group of eight bits is called a \_\_\_\_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​byte | |  | b. | ​megabit | |  | c. | ​binary | |  | d. | ​numeric data |  |  |  | | --- | --- | | *ANSWER:* | a | | *REFERENCES:* | BITS AND BYTES | |

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| 20. Transmission speeds are expressed in \_\_\_\_\_\_\_, whereas storage space is expressed in \_\_\_\_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​bits, bytes | |  | b. | ​bytes, bits | |  | c. | ​binary, numeric | |  | d. | ​none of the above |  |  |  | | --- | --- | | *ANSWER:* | a | | *REFERENCES:* | BITS AND BYTES | |

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| --- | --- | --- | --- | --- |
| 21. Data \_\_\_\_\_\_\_\_\_\_\_\_ refers to any technique that recodes the data in a file so that it contains fewer bits.​   |  |  | | --- | --- | | *ANSWER:* | compression​ | | *REFERENCES:* | COMPRESSION | |

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| 22. Lossy compression provides a way to compress data and reconstitute it into its original state.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *REFERENCES:* | COMPRESSION | |

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| 23. Lossy compression throws away some of the original data during the compression process.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *REFERENCES:* | COMPRESSION | |

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| 24. Compressed files usually have \_\_\_\_\_\_ at the end of the file name.​   |  |  |  | | --- | --- | --- | |  | a. | ​.exe | |  | b. | ​.zip | |  | c. | ​.txt | |  | d. | ​none of the above |  |  |  | | --- | --- | | *ANSWER:* | b | | *REFERENCES:* | COMPRESSION | |

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| 25. \_\_\_\_\_\_\_\_\_\_ is music, speech, and other sounds represented in binary format for use in digital devices.​   |  |  |  | | --- | --- | --- | |  | a. | ​MIDI | |  | b. | speech recognition​ | |  | c. | ​speech synthesis | |  | d. | ​Digital audio |  |  |  | | --- | --- | | *ANSWER:* | d | | *REFERENCES:* | DIGITAL AUDIO BASICS | |

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| 26. To digitally record sound, \_\_\_\_\_\_\_\_\_\_ of a sound wave are collected at periodic intervals and stored as numeric data in an audio file.​   |  |  | | --- | --- | | *ANSWER:* | samples, sample, sampling​ | | *REFERENCES:* | DIGITAL AUDIO BASICS | |

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| 27. Sampling \_\_\_\_\_\_\_ refers to the number of times per second that a sound is measured during the recording process.​   |  |  |  | | --- | --- | --- | |  | a. | ​rate | |  | b. | ​compression | |  | c. | ​depth | |  | d. | ​sound |  |  |  | | --- | --- | | *ANSWER:* | a | | *REFERENCES:* | DIGITAL AUDIO BASICS | |

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| 28. To conserve space, applications that require high-quality sound use low sampling rates.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *REFERENCES:* | DIGITAL AUDIO BASICS | |

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| 29. Regardless of sampling rate, digital audio file size can be reduced using audio compression techniques.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *REFERENCES:* | DIGITAL AUDIO BASICS | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 30. Most music for portable media players is stored in \_\_\_\_\_\_\_ audio file formats.​   |  |  |  | | --- | --- | --- | |  | a. | ​uncompressed | |  | b. | ​compressed | |  | c. | ​lossless | |  | d. | ​zipped |  |  |  | | --- | --- | | *ANSWER:* | b | | *REFERENCES:* | DIGITAL AUDIO FILE FORMATS | |

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| 31. Digital audio is stored in a variety of file formats, including \_\_\_\_\_\_\_\_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​WMA | |  | b. | ​WAV | |  | c. | ​MP3 | |  | d. | ​all of the above |  |  |  | | --- | --- | | *ANSWER:* | d | | *REFERENCES:* | DIGITAL AUDIO FILE FORMATS | |

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| 32. Which of the following is NOT a format that is used for digital audio?​   |  |  |  | | --- | --- | --- | |  | a. | ​MP3 | |  | b. | ​DOC | |  | c. | ​WAV | |  | d. | ​Ogg |  |  |  | | --- | --- | | *ANSWER:* | b | | *REFERENCES:* | DIGITAL AUDIO FILE FORMATS | |

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| 33. A(n) \_\_\_\_\_\_\_ is software that works in conjunction with your computer’s browser to manage and play audio that you are accessing from a Web page.​   |  |  | | --- | --- | | *ANSWER:* | audio plugin​ | | *REFERENCES:* | DIGITAL AUDIO FILE FORMATS | |

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| 34. The technical term for ripping music tracks is digital audio extraction.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *REFERENCES:* | DIGITAL AUDIO FILE FORMATS | |

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| 35. \_\_\_\_\_\_ specifies a standard way to store music data for synthesizers and computers.​   |  |  | | --- | --- | | *ANSWER:* | MIDI​ | | *REFERENCES:* | MIDI | |

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| 36. MIDI files are less compact than digital audio files.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *REFERENCES:* | MIDI | |

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| 37. One of the main disadvantages of MIDI is that it cannot produce vocals.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *REFERENCES:* | MIDI | |

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| 38. \_\_\_\_\_\_\_\_\_ enables people to control software with spoken commands, as well as dictate text into a word processing document.​   |  |  |  | | --- | --- | --- | |  | a. | ​MIDI | |  | b. | ​Speech synthesis | |  | c. | ​Speech recognition | |  | d. | ​Phonemes |  |  |  | | --- | --- | | *ANSWER:* | c | | *REFERENCES:* | DIGITIZED SPEECH | |

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| 39. \_\_\_\_\_\_\_\_\_\_ is the process by which machines produce sound that resembles spoken words.​   |  |  | | --- | --- | | *ANSWER:* | Speech synthesis​ | | *REFERENCES:* | DIGITIZED SPEECH | |

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| 40. Text-to-speech software analyzes the words in a section of text, finds corresponding phonemes, and combines them into sentences for output.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *REFERENCES:* | DIGITIZED SPEECH | |

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| 41. Speech recognition software analyzes the sounds of your voice and converts each word into groups of \_\_\_\_\_\_\_\_.​   |  |  | | --- | --- | | *ANSWER:* | phonemes, phoneme​ | | *REFERENCES:* | DIGITIZED SPEECH | |

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| 42. A bitmap graphic is composed of a grid of tiny rectangular cells.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *REFERENCES:* | BITMAP BASICS | |

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| 43. Digital photographs are stored as bitmap files.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *REFERENCES:* | BITMAP BASICS | |

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| 44. In a digital camera, a CCD’s \_\_\_\_\_\_\_\_ correspond to pixels.​   |  |  | | --- | --- | | *ANSWER:* | photosites, photosite​ | | *REFERENCES:* | BITMAP BASICS | |

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| 45. Which of the following is NOT a type of bitmap format?​   |  |  |  | | --- | --- | --- | |  | a. | ​TIFF | |  | b. | RAW​ | |  | c. | ​PNG | |  | d. | ​ZIP |  |  |  | | --- | --- | | *ANSWER:* | d | | *REFERENCES:* | BITMAP BASICS | |

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| 46. Bitmap images are formed by a grid of \_\_\_\_\_.​   |  |  | | --- | --- | | *ANSWER:* | pixels​ | | *REFERENCES:* | BITMAP DATA REPRESENTATION | |

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| 47. Today’s color display devices represent color using the \_\_\_\_\_\_ color model.​   |  |  |  | | --- | --- | --- | |  | a. | ​RGB | |  | b. | ​PNG | |  | c. | ​BMP | |  | d. | ​none of the above |  |  |  | | --- | --- | | *ANSWER:* | a | | *REFERENCES:* | BITMAP DATA REPRESENTATION | |

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| 48. The number of colors available in a graphic is referred to as color \_\_\_\_\_\_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​depth | |  | b. | ​range | |  | c. | ​RGB | |  | d. | ​PNG |  |  |  | | --- | --- | | *ANSWER:* | a | | *REFERENCES:* | BITMAP DATA REPRESENTATION | |

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| 49. 8-bit color depth is also called True Color.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *REFERENCES:* | BITMAP DATA REPRESENTATION | |

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| 50. The dimensions of the grid that forms a bitmap graphic are referred to as image \_\_\_\_\_\_\_\_\_\_.​   |  |  | | --- | --- | | *ANSWER:* | resolution​ | | *REFERENCES:* | BITMAP RESOLUTION | |

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| 51. Bitmap graphics are resolution dependent because each element is a discrete pixel.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *REFERENCES:* | BITMAP RESOLUTION | |

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| 52. An undesirable jagged appearance of a graphics image is referred to as \_\_\_\_\_\_\_.​   |  |  | | --- | --- | | *ANSWER:* | pixelation​ | | *REFERENCES:* | BITMAP RESOLUTION | |

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| 53. Most graphics software uses a process called pixel \_\_\_\_\_\_\_\_\_ to create new pixels by averaging the colors of nearby pixels.​   |  |  |  | | --- | --- | --- | |  | a. | ​polarization | |  | b. | ​interpolation | |  | c. | ​compression | |  | d. | ​resolution |  |  |  | | --- | --- | | *ANSWER:* | b | | *REFERENCES:* | BITMAP RESOLUTION | |

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| 54. Image \_\_\_\_\_\_\_\_\_\_ refers to any technique that recodes the data in an image file so that it contains fewer bits.​   |  |  | | --- | --- | | *ANSWER:* | compression​ | | *REFERENCES:* | IMAGE COMPRESSION | |

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| 55. TIFF, PNG, and GIF graphics formats offer lossy compression.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *REFERENCES:* | IMAGE COMPRESSION | |

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| 56. JPEG files are compressed using lossy compression.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *REFERENCES:* | IMAGE COMPRESSION | |

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| 57. Lossy compression techniques discard some data from an image to shrink its file size.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *REFERENCES:* | IMAGE COMPRESSION | |

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| 58. Bitmap graphics are coded as a series of bits. Each bit represents the color of one \_\_\_\_\_\_\_\_.​   |  |  | | --- | --- | | *ANSWER:* | pixel​ | | *REFERENCES:* | MODIFYING BITMAP IMAGES | |

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| 59. Image editors provide an image \_\_\_\_\_\_\_\_\_\_ that can be used to adjust the brightness values for various ranges of dark, mid-range, or light pixels​   |  |  | | --- | --- | | *ANSWER:* | histogram​ | | *REFERENCES:* | MODIFYING BITMAP IMAGES | |

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| 60. In the context of bitmap graphics editing, what technique employs algorithms that pull pixels from one area of an image and then apply them to another area?​   |  |  |  | | --- | --- | --- | |  | a. | ​inpainting | |  | b. | ​cloning | |  | c. | ​noise reduction | |  | d. | ​image enhancement |  |  |  | | --- | --- | | *ANSWER:* | b | | *REFERENCES:* | MODIFYING BITMAP IMAGES | |

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| 61. A clipping \_\_\_\_\_\_ essentially cuts an object out of an image and knocks out the background to make it transparent.​   |  |  | | --- | --- | | *ANSWER:* | path​ | | *REFERENCES:* | MODIFYING BITMAP IMAGES | |

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| 62. What is the term used to describes altering the pixel colors where the edges of the object and the background meet, so that the object appears to merge with the background?​   |  |  |  | | --- | --- | --- | |  | a. | ​Alpha blending | |  | b. | ​Clipping path | |  | c. | ​Cloning | |  | d. | ​Inpainting |  |  |  | | --- | --- | | *ANSWER:* | a | | *REFERENCES:* | MODIFYING BITMAP IMAGES | |

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| 63. A vector graphic consists of a set of instructions for creating a picture.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *REFERENCES:* | VECTOR GRAPHICS BASICS | |

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| 64. Instead of storing the color value for each pixel, a vector graphics file contains instructions that a computer uses to create the shape, size, position, and color for each object in an image.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *REFERENCES:* | VECTOR GRAPHICS BASICS | |

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| 65. When you change the size of a(n) \_\_\_\_\_\_\_ graphic, the objects change proportionally and maintain their smooth edges.​   |  |  | | --- | --- | | *ANSWER:* | vector​ | | *REFERENCES:* | VECTOR GRAPHICS BASICS | |

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| 66. Vector graphics usually require more storage space than bitmaps.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *REFERENCES:* | VECTOR GRAPHICS BASICS | |

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| 67. Which of the following options are well suited for using vector graphics?​   |  |  |  | | --- | --- | --- | |  | a. | ​line art | |  | b. | ​logos | |  | c. | ​diagrams | |  | d. | ​all of the above |  |  |  | | --- | --- | | *ANSWER:* | d | | *REFERENCES:* | VECTOR GRAPHICS BASICS | |

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| 68. All bitmap graphics are photos.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *REFERENCES:* | VECTOR GRAPHICS BASICS | |

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| 69. Which of the following file extensions is NOT a vector graphic?​   |  |  |  | | --- | --- | --- | |  | a. | ​.svg | |  | b. | ​.eps | |  | c. | ​.tif | |  | d. | ​.ai |  |  |  | | --- | --- | | *ANSWER:* | c | | *REFERENCES:* | VECTOR GRAPHICS BASICS | |

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| 70. Both scanners and digital cameras produce vector graphics.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *REFERENCES:* | VECTOR TOOLS | |

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| 71. What is another term for vector graphics software?​   |  |  |  | | --- | --- | --- | |  | a. | ​Drawing software | |  | b. | ​Photo editing software | |  | c. | ​Digital compositing | |  | d. | ​All of the above |  |  |  | | --- | --- | | *ANSWER:* | a | | *REFERENCES:* | VECTOR TOOLS | |

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| 72. A vector graphic can be converted into a bitmap graphic through a process called \_\_\_\_\_\_\_\_\_.​   |  |  | | --- | --- | | *ANSWER:* | rasterizing, rasterization​ | | *REFERENCES:* | VECTOR TOOLS | |

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| 73. After a vector graphic is converted to a bitmap, the resulting graphic no longer has the qualities of a vector graphic.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *REFERENCES:* | VECTOR TOOLS | |

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| 74. 3-D graphics are based on vectors stored as a set of instructions describing the coordinates for lines and shapes in a three-dimensional space. What do these vectors form?​   |  |  |  | | --- | --- | --- | |  | a. | a bitmap graphic​ | |  | b. | ​a zipped file | |  | c. | ​a wireframe | |  | d. | ​all of the above |  |  |  | | --- | --- | | *ANSWER:* | c | | *REFERENCES:* | 3-D GRAPHICS | |

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| 75. The process of covering a wireframe with surface color and texture is called \_\_\_\_\_\_\_\_\_.​   |  |  | | --- | --- | | *ANSWER:* | rendering, render​ | | *REFERENCES:* | 3-D GRAPHICS | |

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| 76. Which of the following is the technique for adding light and shadows to a 3-D image?​   |  |  |  | | --- | --- | --- | |  | a. | ​rendering | |  | b. | ray tracing​ | |  | c. | ​wireframe | |  | d. | ​rasterize |  |  |  | | --- | --- | | *ANSWER:* | b | | *REFERENCES:* | 3-D GRAPHICS | |

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| 77. 3-D graphics can be animated.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *REFERENCES:* | 3-D GRAPHICS | |

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| 78. Which of the following tools would be found in 3‑D graphics software?​   |  |  |  | | --- | --- | --- | |  | a. | ​rendering tools | |  | b. | ​ray tracing tools | |  | c. | ​surface texture tools | |  | d. | ​all of the above |  |  |  | | --- | --- | | *ANSWER:* | d | | *REFERENCES:* | 3-D GRAPHICS | |

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| 79. Digital video uses bits to store color and brightness data for each video frame.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *REFERENCES:* | DIGITAL VIDEO BASICS | |

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| 80. Analog footage can be digitized using video \_\_\_\_\_ equipment.​   |  |  | | --- | --- | | *ANSWER:* | capture​ | | *REFERENCES:* | DIGITAL VIDEO BASICS | |

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| 81. Digital \_\_\_\_\_\_\_\_ captures moving images as bits, rather than on film.​   |  |  | | --- | --- | | *ANSWER:* | cinematography​ | | *REFERENCES:* | DIGITAL VIDEO BASICS | |

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| 82. Digital video is a core technology for which of the following?​   |  |  |  | | --- | --- | --- | |  | a. | ​digital television | |  | b. | ​videoconferencing systems | |  | c. | ​video messaging | |  | d. | ​all of the above |  |  |  | | --- | --- | | *ANSWER:* | d | | *REFERENCES:* | DIGITAL VIDEO BASICS | |

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| 83. Which of the following is NOT a factor in the quality of digital video?​   |  |  |  | | --- | --- | --- | |  | a. | ​frame rate and resolution | |  | b. | ​color and bit depth | |  | c. | ​compression technique | |  | d. | ​memory technology in your camera |  |  |  | | --- | --- | | *ANSWER:* | d | | *REFERENCES:* | DIGITAL VIDEO BASICS | |

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| 84. In digital video, each bitmap image is referred to as a(n) \_\_\_\_\_\_\_\_\_\_.​   |  |  | | --- | --- | | *ANSWER:* | frame​ | | *REFERENCES:* | DIGITAL VIDEO BASICS | |

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| 85. The number of frames that are displayed per second is measured in \_\_\_\_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​compression | |  | b. | fps | |  | c. | ​color depth | |  | d. | ​bps |  |  |  | | --- | --- | | *ANSWER:* | b | | *REFERENCES:* | DIGITAL VIDEO BASICS | |

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| 86. Digital videos look sharpest when they are displayed at a resolution that is larger than the frame size.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *REFERENCES:* | DIGITAL VIDEO BASICS | |

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| 87. Video resolutions can be expressed as width x height.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *REFERENCES:* | DIGITAL VIDEO BASICS | |

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| 88. Today’s widescreen devices, such as laptops and smartphones, are designed for the 16:9 \_\_\_\_\_\_\_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​resolution | |  | b. | ​aspect ratio | |  | c. | ​frame rate | |  | d. | ​all of the above |  |  |  | | --- | --- | | *ANSWER:* | b | | *REFERENCES:* | DIGITAL VIDEO BASICS | |

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| 89. When 4:3 videos are displayed in a widescreen player, they are bordered by the black bars of a(n) \_\_\_\_\_\_\_.​   |  |  | | --- | --- | | *ANSWER:* | letterbox​ | | *REFERENCES:* | DIGITAL VIDEO BASICS | |

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| 90. In digital video, as long as the proportion of horizontal and vertical pixels remains the same, the aspect ratio is consistent.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *REFERENCES:* | DIGITAL VIDEO BASICS | |

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| 91. \_\_\_\_\_\_\_\_ is the number of bits that are processed during a specific unit of time, usually during one second.​   |  |  |  | | --- | --- | --- | |  | a. | ​Bit rate | |  | b. | ​Bit depth | |  | c. | ​Color depth | |  | d. | ​none of the above |  |  |  | | --- | --- | | *ANSWER:* | a | | *REFERENCES:* | DIGITAL VIDEO BASICS | |

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| 92. Bit rate can be scaled down by reducing the resolution and applying \_\_\_\_\_\_\_\_\_\_\_\_ techniques.​   |  |  | | --- | --- | | *ANSWER:* | compression​ | | *REFERENCES:* | VIDEO COMPRESSION | |

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| 93. In digital video, a lower resolution reduces the bit rate.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *REFERENCES:* | VIDEO COMPRESSION | |

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| 94. \_\_\_\_\_\_\_ compression can be applied to each frame of a video.​   |  |  | | --- | --- | | *ANSWER:* | Intraframe​ | | *REFERENCES:* | VIDEO COMPRESSION | |

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| 95. \_\_\_\_\_\_\_\_ compression stores only the pixels that change color from one frame to the next.​   |  |  | | --- | --- | | *ANSWER:* | Interframe​ | | *REFERENCES:* | VIDEO COMPRESSION | |

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| 96. Video compression can be expressed as a compression \_\_\_\_\_\_.​   |  |  | | --- | --- | | *ANSWER:* | ratio ​ | | *REFERENCES:* | VIDEO COMPRESSION | |

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| 97. A(n) \_\_\_\_\_\_\_ is the software that compresses a video stream when a video is stored, and decompresses the file when the video is played.​   |  |  |  | | --- | --- | --- | |  | a. | ​compression | |  | b. | ​codec | |  | c. | ​bitmap | |  | d. | ​resolution |  |  |  | | --- | --- | | *ANSWER:* | b | | *REFERENCES:* | VIDEO COMPRESSION | |

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| 98. Video files are stored in \_\_\_\_\_\_\_\_ formats that hold the compressed video stream and an audio stream.​   |  |  | | --- | --- | | *ANSWER:* | container​ | | *REFERENCES:* | VIDEO FILE FORMATS | |

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| 99. Which of the following is NOT a type of digital video container file?​   |  |  |  | | --- | --- | --- | |  | a. | ​MP4 | |  | b. | ​AVI | |  | c. | ​VOB | |  | d. | ​PNG |  |  |  | | --- | --- | | *ANSWER:* | d | | *REFERENCES:* | VIDEO FILE FORMATS | |

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| 100. Transcoding digital videos does not cause a loss of quality.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *REFERENCES:* | VIDEO FILE FORMATS | |