|  |
| --- |
| \_\_\_\_ states that the cost of fabrication facilities for the latest chip generation doubles every four years. |
| Question 1 answers

|  |  |  |
| --- | --- | --- |
|  | a. | Rock’s Law  |
|  | b. | Nelson’s Law  |
|  | c. | Moore’s Law  |
|  | d. | Lamb’s Law  |

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| Question 2 text**Question 2**  | **2 points**  | Save  |
|  | Each clock cycle the CPU spends waiting for a slower device is called a \_\_\_\_. |  |  |  |  |
| Question 2 answers

|  |  |  |
| --- | --- | --- |
|  | a. | suspend state  |
|  | b. | wait state  |
|  | c. | hold state  |
|  | d. | block state  |

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| --- | --- | --- |
| Question 3 text**Question 3**  | **2 points**  | Save  |
|  | Practical optical processors will probably appear first as full-fledged computer processors. |  |  |  |  |
| Question 3 answers

|  |  |
| --- | --- |
|  | True |
|  | False |

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| --- | --- | --- |
| Question 4 text**Question 4**  | **2 points**  | Save  |
|  | MOVE tests the bit values in the source location and moves these values to the destination location. |  |  |  |  |
| Question 4 answers

|  |  |
| --- | --- |
|  | True |
|  | False |

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| --- | --- | --- |
| Question 5 text**Question 5**  | **2 points**  | Save  |
|  | The \_\_\_\_ is a digital circuit that generates timing pulses, or signals, and transmits the pulses to other devices in the computer. |  |  |  |  |
| Question 5 answers

|  |  |  |
| --- | --- | --- |
|  | a. | memory clock  |
|  | b. | variance clock  |
|  | c. | system clock  |
|  | d. | data clock  |

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| --- | --- | --- |
| Question 6 text**Question 6**  | **2 points**  | Save  |
|  | An \_\_\_\_ is a template that specifies the number of operands and the position and length of the op code and operands. |  |  |  |  |
| Question 6 answers

|  |  |  |
| --- | --- | --- |
|  | a. | instruction format  |
|  | b. | operation format  |
|  | c. | operand template  |
|  | d. | instruction template  |

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| Question 7 text**Question 7**  | **2 points**  | Save  |
|  | Arithmetic SHIFT instructions are more complex when applied to twos complement values because the rightmost bit is a sign bit. |  |  |  |  |
| Question 7 answers

|  |  |
| --- | --- |
|  | True |
|  | False |

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| Question 8 text**Question 8**  | **2 points**  | Save  |
|  | Many \_\_\_\_ create application software for specific processing needs. |  |  |  |  |
| Question 8 answers

|  |  |  |
| --- | --- | --- |
|  | a. | system architects  |
|  | b. | software developers  |
|  | c. | systems designers  |
|  | d. | software engineers  |

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| Question 9 text**Question 9**  | **2 points**  | Save  |
|  | Unbiased information exists on the Web, and it’s generally easy to find. |  |  |  |  |
| Question 9 answers

|  |  |
| --- | --- |
|  | True |
|  | False |

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| --- | --- | --- |
| Question 10 text**Question 10**  | **2 points**  | Save  |
|  | Hardware and software manufacturers are in the business of providing unbiased information about products. |  |  |  |  |
| Question 10 answers

|  |  |
| --- | --- |
|  | True |
|  | False |

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| --- | --- | --- |
| Question 11 text**Question 11**  | **2 points**  | Save  |
|  | End users use \_\_\_\_ to perform specific tasks, such as processing customer orders or developing and formatting documents and financial analyses. |  |  |  |  |
| Question 11 answers

|  |  |  |
| --- | --- | --- |
|  | a. | design software  |
|  | b. | middleware  |
|  | c. | system software  |
|  | d. | application software  |

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| Question 12 text**Question 12**  | **2 points**  | Save  |
|  | The \_\_\_\_ discipline is the set of activities for installing and configuring infrastructure and application software components and bringing them into operation. |  |  |  |  |
| Question 12 answers

|  |  |  |
| --- | --- | --- |
|  | a. | services  |
|  | b. | testing  |
|  | c. | deployment  |
|  | d. | implementation  |

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| Question 13 text**Question 13**  | **2 points**  | Save  |
|  | In the binary32 format, the leading sign bit applies to the exponent, not the mantissa. |  |  |  |  |
| Question 13 answers

|  |  |
| --- | --- |
|  | True |
|  | False |

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| --- | --- | --- |
| Question 14 text**Question 14**  | **2 points**  | Save  |
|  | Binary numbers are well suited to computer processing because they correspond directly with values in \_\_\_\_ logic. |  |  |  |  |
| Question 14 answers

|  |  |  |
| --- | --- | --- |
|  | a. | Boolean  |
|  | b. | Newton  |
|  | c. | Turing  |
|  | d. | standard  |

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| Question 15 text**Question 15**  | **2 points**  | Save  |
|  | A(n) \_\_\_\_ is one instance, or variable, of a class. |  |  |  |  |
| Question 15 answers

|  |  |  |
| --- | --- | --- |
|  | a. | implementation  |
|  | b. | structure  |
|  | c. | object  |
|  | d. | list  |

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| --- | --- | --- |
| Question 16 text**Question 16**  | **2 points**  | Save  |
|  | A(n) \_\_\_\_ is a related group of primitive data elements organized for some type of common processing and is defined and manipulated in software. |  |  |  |  |
| Question 16 answers

|  |  |  |
| --- | --- | --- |
|  | a. | data structure  |
|  | b. | object  |
|  | c. | pointer  |
|  | d. | primitive  |

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| Question 17 text**Question 17**  | **2 points**  | Save  |
|  | The assignment of numeric codes to characters follows a specific order called a(n) \_\_\_\_. |  |  |  |  |
| Question 17 answers

|  |  |  |
| --- | --- | --- |
|  | a. | collating sequence  |
|  | b. | alignment sequence  |
|  | c. | byte sequence  |
|  | d. | alphabet sequence  |

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| --- | --- | --- |
| Question 18 text**Question 18**  | **2 points**  | Save  |
|  | Using contiguous storage locations, especially in secondary storage devices, simplifies the allocation of storage locations. |  |  |  |  |
| Question 18 answers

|  |  |
| --- | --- |
|  | True |
|  | False |

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| --- | --- | --- |
| Question 19 text**Question 19**  | **2 points**  | Save  |
|  | The advantage of using an index lies in the efficiency of record insertion, deletion, and retrieval. |  |  |  |  |
| Question 19 answers

|  |  |
| --- | --- |
|  | True |
|  | False |

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| --- | --- | --- |
| Question 20 text**Question 20**  | **2 points**  | Save  |
|  | Zip files and archives are examples of lossless compression. |  |  |  |  |
| Question 20 answers

|  |  |
| --- | --- |
|  | True |
|  | False |

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| --- | --- | --- |
| Question 21 text**Question 21**  | **2 points**  | Save  |
|  | Many computer system designers now rely on \_\_\_\_ to implement disk caching. |  |  |  |  |
| Question 21 answers

|  |  |  |
| --- | --- | --- |
|  | a. | the OS  |
|  | b. | specialized disk controller hardware  |
|  | c. | firmware  |
|  | d. | applications  |

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| Question 22 text**Question 22**  | **2 points**  | Save  |
|  | Both multicore and multiple-processor architectures are examples of scaling up because they increase the power of a single computer system. |  |  |  |  |
| Question 22 answers

|  |  |
| --- | --- |
|  | True |
|  | False |

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| --- | --- | --- |
| Question 23 text**Question 23**  | **2 points**  | Save  |
|  | With \_\_\_\_ compression, any data input that’s compressed and then decompressed is exactly the same as the original input. |  |  |  |  |
| Question 23 answers

|  |  |  |
| --- | --- | --- |
|  | a. | lossy  |
|  | b. | perfect  |
|  | c. | lossless  |
|  | d. | ideal  |

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| Question 24 text**Question 24**  | **2 points**  | Save  |
|  | Devices attached to a system bus coordinate their activities with a common \_\_\_\_. |  |  |  |  |
| Question 24 answers

|  |  |  |
| --- | --- | --- |
|  | a. | data bus  |
|  | b. | system bus  |
|  | c. | control bus  |
|  | d. | bus clock  |

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| --- | --- | --- |
| Question 25 text**Question 25**  | **2 points**  | Save  |
|  | \_\_\_\_ is an approach that partitions processing and other tasks among multiple computer systems. |  |  |  |  |
| Question 25 answers

|  |  |  |
| --- | --- | --- |
|  | a. | Scaling up  |
|  | b. | Scaling out  |
|  | c. | Scaling down  |
|  | d. | Scaling in  |

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| --- | --- | --- |
| Question 26 text**Question 26**  | **2 points**  | Save  |
|  | Lossless compression ratios higher than 50:1 are difficult or impossible to achieve with audio and video data. |  |  |  |  |
| Question 26 answers

|  |  |
| --- | --- |
|  | True |
|  | False |

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| --- | --- | --- |
| Question 27 text**Question 27**  | **2 points**  | Save  |
|  | The ratio of cache hits to read accesses is called the cache’s \_\_\_\_. |  |  |  |  |
| Question 27 answers

|  |  |  |
| --- | --- | --- |
|  | a. | hit boundary  |
|  | b. | performance  |
|  | c. | hit ratio  |
|  | d. | efficiency  |

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| Question 28 text**Question 28**  | **2 points**  | Save  |
|  | Because plasma displays actively generate colored light near the display surface, they’re brighter and have a wider viewing angle than LCDs. |  |  |  |  |
| Question 28 answers

|  |  |
| --- | --- |
|  | True |
|  | False |

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| --- | --- | --- |
| Question 29 text**Question 29**  | **2 points**  | Save  |
|  | On paper, pixel size corresponds to the smallest drop of ink that can be placed accurately on the page. |  |  |  |  |
| Question 29 answers

|  |  |
| --- | --- |
|  | True |
|  | False |

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| --- | --- | --- |
| Question 30 text**Question 30**  | **2 points**  | Save  |
|  | Printer technology can be classified into three common types: \_\_\_\_. |  |  |  |  |
| Question 30 answers

|  |  |  |
| --- | --- | --- |
|  | a. | impact, sublimation, and laser  |
|  | b. | impact, inkjet, and laser  |
|  | c. | sublimation, inkjet, and laser  |
|  | d. | inkjet, impact, and electric  |

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| Question 31 text**Question 31**  | **2 points**  | Save  |
|  | \_\_\_\_ is the process of recognizing and responding to the meaning embedded in spoken words, phrases, or sentences. |  |  |  |  |
| Question 31 answers

|  |  |  |
| --- | --- | --- |
|  | a. | Voice recognition  |
|  | b. | Natural recognition  |
|  | c. | Pattern recognition  |
|  | d. | Speech recognition  |

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| --- | --- | --- |
| Question 32 text**Question 32**  | **2 points**  | Save  |
|  | The first computer video display devices, introduced in the 1960s, consisted of an integrated keyboard and TV screen called a \_\_\_\_. |  |  |  |  |
| Question 32 answers

|  |  |  |
| --- | --- | --- |
|  | a. | video display terminal  |
|  | b. | teletype terminal  |
|  | c. | video interaction terminal  |
|  | d. | video interface terminal  |

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| --- | --- | --- |
| Question 33 text**Question 33**  | **2 points**  | Save  |
|  | PDF417 bar codes can hold around \_\_\_\_ of data. |  |  |  |  |
| Question 33 answers

|  |  |  |
| --- | --- | --- |
|  | a. | 1 KB  |
|  | b. | 1 MB  |
|  | c. | 1 GB  |
|  | d. | 1 TB  |

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| --- | --- | --- |
| Question 34 text**Question 34**  | **2 points**  | Save  |
|  | The most common display surfaces are paper and flat panel displays. |  |  |  |  |
| Question 34 answers

|  |  |
| --- | --- |
|  | True |
|  | False |

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| --- | --- | --- |
| Question 35 text**Question 35**  | **2 points**  | Save  |
|  | Up to \_\_\_\_ channels of MIDI data can be sent over the same serial transmission line |  |  |  |  |
| Question 35 answers

|  |  |  |
| --- | --- | --- |
|  | a. | 4  |
|  | b. | 8  |
|  | c. | 16  |
|  | d. | 32  |

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| --- | --- | --- |
| Question 36 text**Question 36**  | **2 points**  | Save  |
|  | A \_\_\_\_ is a set of computing resources with front-end interfaces and back-end resources. |  |  |  |  |
| Question 36 answers

|  |  |  |
| --- | --- | --- |
|  | a. | blade  |
|  | b. | cluster  |
|  | c. | grid  |
|  | d. | cloud  |

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| --- | --- | --- |
| Question 37 text**Question 37**  | **2 points**  | Save  |
|  | In a computation device, a(n) \_\_\_\_ is driven by a spring and pendulum, and each swing of the pendulum allows a gear to move one step under pressure from the spring. |  |  |  |  |
| Question 37 answers

|  |  |  |
| --- | --- | --- |
|  | a. | mechanical clock  |
|  | b. | aluminum clock  |
|  | c. | analog clock  |
|  | d. | kerosene clock  |

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| --- | --- | --- |
| Question 38 text**Question 38**  | **2 points**  | Save  |
|  | In the “layered approach,” knowledge of the machine’s physical details is embedded into system software and hidden from users and application programmers. This is commonly referred to as \_\_\_\_. |  |  |  |  |
| Question 38 answers

|  |  |  |
| --- | --- | --- |
|  | a. | machine independence  |
|  | b. | abstraction  |
|  | c. | virtualization  |
|  | d. | machine dependence  |

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| Question 39 text**Question 39**  | **2 points**  | Save  |
|  | “\_\_\_\_” is the concept that the per-unit cost of producing goods or providing services decreases as the organization size increases. |  |  |  |  |
| Question 39 answers

|  |  |  |
| --- | --- | --- |
|  | a. | Economies of balance  |
|  | b. | Economies of scale  |
|  | c. | Economies of measure  |
|  | d. | Economies of growth  |

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| Question 40 text**Question 40**  | **2 points**  | Save  |
|  | A \_\_\_\_ is a program that translates instructions in a programming language into CPU instructions. |  |  |  |  |
| Question 40 answers

|  |  |  |
| --- | --- | --- |
|  | a. | program translator  |
|  | b. | linker  |
|  | c. | parser  |
|  | d. | compiler  |

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| --- | --- | --- |
| Question 41 text**Question 41**  | **2 points**  | Save  |
|  | A(n) \_\_\_\_ is a program in which different sets of instructions are applied to different data input values. |  |  |  |  |
| Question 41 answers

|  |  |  |
| --- | --- | --- |
|  | a. | problem  |
|  | b. | system  |
|  | c. | solution  |
|  | d. | algorithm  |

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| --- | --- | --- |
| Question 42 text**Question 42**  | **2 points**  | Save  |
|  | A personal digital assistant is a laptop computer that emphasizes small size, reduced weight, low cost, and wireless networking and is capable of performing only light-duty tasks, such as Web browsing, e-mailing, and word processing. |  |  |  |  |
| Question 42 answers

|  |  |
| --- | --- |
|  | True |
|  | False |

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| --- | --- | --- |
| Question 43 text**Question 43**  | **2 points**  | Save  |
|  | Memory devices comprised of semiconductors and other forms of RAM with long-term or permanent data retention are generically known as \_\_\_\_. |  |  |  |  |
| Question 43 answers

|  |  |  |
| --- | --- | --- |
|  | a. | persistent memory  |
|  | b. | volatile memory  |
|  | c. | nonvolatile memory  |
|  | d. | tertiary storage  |

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| Question 44 text**Question 44**  | **2 points**  | Save  |
|  | Electrical current can generate a magnetic field but a magnetic field cannot generate electricity. |  |  |  |  |
| Question 44 answers

|  |  |
| --- | --- |
|  | True |
|  | False |

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| --- | --- | --- |
| Question 45 text**Question 45**  | **2 points**  | Save  |
|  | Coercible material per sector is greater at the center than in the platter edge. |  |  |  |  |
| Question 45 answers

|  |  |
| --- | --- |
|  | True |
|  | False |

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| --- | --- | --- |
| Question 46 text**Question 46**  | **2 points**  | Save  |
|  | \_\_\_\_ stores each bit by using a single transistor and capacitor. |  |  |  |  |
| Question 46 answers

|  |  |  |
| --- | --- | --- |
|  | a. | Dynamic RAM  |
|  | b. | Dynamic ROM  |
|  | c. | Static ROM  |
|  | d. | Static RAM  |

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| --- | --- | --- |
| Question 47 text**Question 47**  | **2 points**  | Save  |
|  | Block size is normally stated in bytes and is generally the same between storage devices, especially in a single storage device. |  |  |  |  |
| Question 47 answers

|  |  |
| --- | --- |
|  | True |
|  | False |

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| --- | --- | --- |
| Question 48 text**Question 48**  | **2 points**  | Save  |
|  | A \_\_\_\_ is a CPU cycle spent waiting for access to an instruction or data. |  |  |  |  |
| Question 48 answers

|  |  |  |
| --- | --- | --- |
|  | a. | clock state  |
|  | b. | hold state  |
|  | c. | purge state  |
|  | d. | wait state  |

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| --- | --- | --- |
| Question 49 text**Question 49**  | **2 points**  | Save  |
|  | Cost per unit decreases as an access method moves from serial to random to parallel. |  |  |  |  |
| Question 49 answers

|  |  |
| --- | --- |
|  | True |
|  | False |

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| --- | --- | --- |
| Question 50 text**Question 50**  | **2 points**  | Save  |
|  | \_\_\_\_ is a read-ahead RAM that uses the same clock pulse as the system bus. |  |  |  |  |
| Question 50 answers

|  |  |  |
| --- | --- | --- |
|  | a. | Synchronous DRAM  |
|  | b. | Flash DRAM  |
|  | c. | Asynchronous DRAM  |
|  | d. | Continuous DRAM  |

 |  |  |  |  |