Computer Science Illuminated 7th edition Dale Test Bank

SKU: 9781284155617-TEST-BANK

Computer Science Illuminated, Seventh Edition
ASQZ: Chapter 2
Nell Dale and John Lewis

Import Settings:
Base Settings: Brownstone Default
Information Field: Complexity
Information Field: Ahead
Information Field: Subject
Information Field: Title
Information Field: Feedback
Information Field: Taxonomy
Information Field: Objective
Highest Answer Letter: E
Multiple Keywords in Same Paragraph: No
NAS ISBN13: 9781284155617, add to Ahead, Title tags

Chapter: Chapter 02 - Quiz

Multiple Choice

1. How many digits are there in the binary number system?
A) 1
B) 2
C) 7
D) 8
E) 9
Ans: B
Complexity: Easy
Ahead: Positional Notation
Subject: Chapter 2
Title: Binary Values and Number Systems

2. How many digits are there in the hexadecimal number system?
A) 0
B) 9
C) 10
D) 15
E) 16
Ans: E
Complexity: Moderate
Ahead: Positional Notation
Subject: Chapter 2
Title: Binary Values and Number Systems

3. What is the decimal value of the largest digit in the hexadecimal number system?
A) 0
B) 9

Copyright © 2020 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Computer Science Illuminated 7th edition Dale Test Bank

C) 10
D) 15
E) 16
Ans: D
Complexity: Difficult
Ahead: Positional Notation
Subject: Chapter 2
Title: Binary Values and Number Systems

True/False

1. True or False? There is one set of underlying principles governing all numbers systems.
Ans: True
Complexity: Easy
Ahead: Positional Notation
Subject: Chapter 2
Title: Binary Values and Number Systems

2. True or False? The base of a number system determines the number of digit positions that can be used for any number in the system.
Ans: False
Complexity: Difficult
Ahead: Positional Notation
Subject: Chapter 2
Title: Binary Values and Number Systems

3. True or False? The base of the hexadecimal number system is 15.
Ans: False
Complexity: Easy
Ahead: Positional Notation
Subject: Chapter 2
Title: Binary Values and Number Systems

4. True or False? A value of a number in any base can be expressed as a polynomial expression.
Ans: True
Complexity: Moderate
Ahead; Positional Notation
Subject: Chapter 2
Title: Binary Values and Number Systems

5. True or False? Grace Murray Hopper is credited with being the first programmer.
Ans: False

Copyright © 2020 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Computer Science Illuminated 7th edition Dale Test Bank

Complexity: Moderate
Ahead: Positional Notation
Subject: Chapter 2
Title: Binary Values and Number Systems

6. True or False? Three octal digits can be stored in one byte.
Ans: False
Complexity: Difficult
Ahead: Positional Notation
Subject: Chapter 2
Title: Binary Values and Number Systems

Short Answer

1. A(n) _____ is a unit of an abstract mathematical system subject to the laws of arithmetic.
Ans: number
Complexity: Easy
Ahead: Numbers and Computing
Subject: Chapter 2
Title: Binary Values and Number Systems

2. The value of a number in any base can be expressed as a(n) _____ in which each term is made up of a digit multiplied by the base raised to a power.
Ans: polynomial
Complexity: Easy
Ahead: Positional Notation
Subject: Chapter 2
Title: Binary Values and Number Systems

3. The highest digit in base 16 is _____.
Ans: F
Complexity: Easy
Ahead: Positional Notation
Subject: Chapter 2
Title: Binary Values and Number Systems

4. In base 16, the digit D is used to represent the decimal value _____.
Ans: 13
Complexity: Difficult
Ahead: Positional Notation
Subject: Chapter 2
Title: Binary Values and Number Systems

Copyright © 2020 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Computer Science Illuminated 7th edition Dale Test Bank

5. A group of eight bits is called a(n) _____.
Ans: byte
Complexity: Easy
Ahead; Positional Notation
Subject: Chapter 2
Title: Binary Values and Number Systems

Essay

1. What is a rational number?
Ans: An integer or the quotient of two integers (excluding division by zero).
Complexity: Easy
Ahead: Numbers and Computing
Subject: Chapter 2
Title: Binary Values and Number Systems

2. What is a natural number?
Ans: The number 0 or any number that can be obtained by repeatedly adding 1 to it.
Complexity: Easy
Ahead: Numbers and Computing
Subject: Chapter 2
Title: Binary Values and Number Systems

3. What is a number?
Ans: A unit in an abstract mathematical system subject to the laws of mathematics.
Complexity: Easy
Ahead: Numbers and Computing
Subject: Chapter 2
Title: Binary Values and Number Systems

4. What is the base of a number system?
Ans: The foundational value that dictates the number of digits and the value of digit positions.
Complexity: Easy
Ahead: Positional Notation
Subject: Chapter 2
Title: Binary Values and Number Systems

5. What is the value of the largest digit in the base X number system (for any positive integer X)?
Ans: X – 1

Copyright © 2020 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Computer Science Illuminated 7th edition Dale Test Bank

Complexity: Moderate
Ahead: Positional Notation
Subject: Chapter 2
Title: Binary Values and Number Systems

6. What is the fundamental concept at the intersection of all branches of modern mathematics?
Ans: The concept of zero.
Complexity: Easy
Ahead: Positional Notation
Subject: Chapter 2
Title: Binary Values and Number Systems

Copyright © 2020 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Computer Science Illuminated 7th edition Dale Test Bank