

Unit 3 - Week 1

Course outline

How to access the portal

Week 0 Assignment 0

Week 1

- Lecture 01 : Introduction
- Lecture 02 : Octal and Hexadecimal Number Systems
- Lecture 03 : Signed and Unsigned Binary Number Representation
- Lecture 04 : Binary Addition and Subtraction
- Lecture 05 : BCD and Gray Code Representations
- Lecture 06 : Error Detection and Correction
- Lecture Material For Week 1
- Feedback for Week 1
- Quiz : Week 1 Assignment 1

Week 2 : Unit 2

Week 3 : Unit 3

Week 4 : Unit 4

Week 5 : Unit 5

Week 6

Week 7

Week 8

Week 9

Week 10

Week 11

Week 12

Download Videos

Text Transcripts

Detail Solution

Live Session

Week 1 Assignment 1

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2019-08-14, 23:59 IST.

- 1) The decimal equivalent of the binary number 10010.011 is
(Provide numerical answer)

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 18.375

1 point

- 2) The binary equivalent of the decimal number 2048 is

- a. 100000000001
- b. 011111111111
- c. 100000000000
- d. None of these

- a.
- b.
- c.
- d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
c.

1 point

- 3) The octal equivalent of the hexadecimal number A3D.2F is

- a. 5075.136
- b. 5075.133
- c. 5075.057
- d. None of these

- a.
- b.
- c.
- d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
a.

1 point

- 4) The hexadecimal equivalent of the binary number 1011101.010111 is

- a. BA.5C
- b. BA.17
- c. 5D.5C
- d. 5D.17

- a.
- b.
- c.
- d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
c.

1 point

- 5) The smallest number that can be represented in 10 bits 2's complement representation is

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) -512

1 point

- 6) The range of numbers that can be represented in 16-bit 1's complement representation is

- a. -32767 to +32767
- b. 0 to 65535
- c. -32768 to +32767
- d. -32767 to +32768

- a.
- b.
- c.
- d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
a.

1 point

- 7) In 2's complement representation -8 is 1000 in 4 bits. The representation of -8 in 12 bits will be:

- a. 0000 0000 1000
- b. 1111 1111 1000
- c. 1000 0000 1000
- d. None of these

- a.
- b.
- c.
- d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
b.

1 point

- 8) When two BCD numbers are added, under what conditions a correction factor of 6 is added to a 4-bit nibble?

- a. When the nibble value is one of 1010, 1011, 1100, 1101, 1110 or 1111.
- b. When there is a carry out of the nibble to the next higher significant nibble.
- c. When a final carry is generated.
- d. None of these.

- a.
- b.
- c.
- d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
a.
b.

1 point

- 9) The advantage(s) of 2's complement representation over sign-magnitude representation is (are)

- a. Subtraction can be performed using addition with correction using end-around carry.
- b. Subtraction can be performed using addition without any correction for end-around carry.
- c. The range of numbers that can be represented is larger.
- d. It can be used for error detection and correction.

- a.
- b.
- c.
- d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
b.
c.

1 point

- 10) The binary equivalent of the Gray code number 0111 0111 is

- a. 0101 1010
- b. 0110 1101
- c. 1000 1000
- d. None of these

- a.
- b.
- c.
- d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
a.

1 point

- 11) For 16 information bits, the minimum number of parity bits that must be added in Hamming code for single error correction is

- a. 3
- b. 4
- c. 5
- d. 6

- a.
- b.
- c.
- d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
c.

1 point

- 12) For 3-bit error correction, the minimum Hamming distance of a codeword must be

- a. 3
- b. 4
- c. 7
- d. None of these

- a.
- b.
- c.
- d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
c.

1 point