

X

NPTEL

reviewer4@nptel.iitm.ac.in ▼

Courses » Computer Organization and Architecture A Pedagogical Aspect

Announcements

Course

Ask a Question

Progress

FAQ

Unit 2 - Week 1: Fundamentals of Digital Computer

Register for
Certification exam

Course outline

How to access
the portal

Week 1: Fundamentals of Digital Computer

● Lecture 1:
Model of
Computer and
Working
Principle

● Lecture 2:
Digital Logic
Building Blocks

● Lecture 3:
Information
Representation
and Number
Systems

○ Quiz :
Assignment for
Week 1

Week 2: Fundamental of Digital Computer

Week 3: Addressing Modes, Instruction Set and Instruction Execution Flow

Assignment for Week 1

The due date for submitting this assignment has passed.

As per our records you have not submitted this
assignment.

Due on 2019-02-13, 23:59 IST.

Assignment for Week 1

1) Computer architecture refers to

1 point

- ☐ The operational units and their interconnections that realize the architectural specifications.
- ☐ Those attributes of a system visible to a programmer.
- ☐ Those attribute that have a direct impact on the logical execution of a program.
- ☐ Arrangement of system attributes with its associated file system.

No, the answer is incorrect.

Score: 0

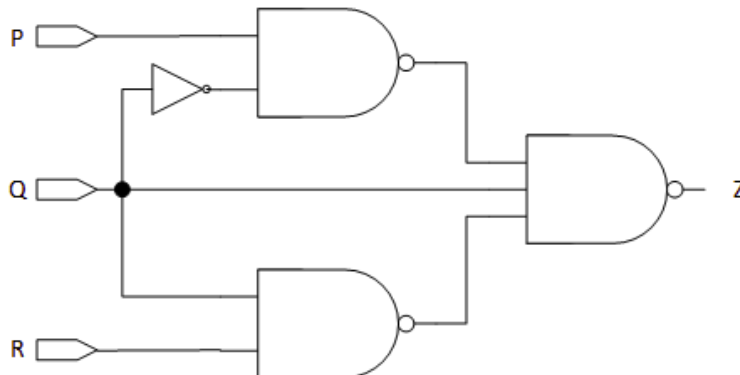
Accepted Answers:

Those attributes of a system visible to a programmer.

Those attribute that have a direct impact on the logical execution of a program.

2) For a three input logic circuit shown below, the output Z can be expressed as:

1 point



☐ $Q+R'$

© 2014 NPTEL - Privacy & Terms - Honor Code - FAQs -

A project of



NPTEL

National Programme on
Technology Enhanced Learning

In association with

NASSCOM®

Funded by

Week 5:
Addressing
Modes,
Instruction Set
and Instruction
Execution Flow

Week 6:
Organization
and Optimization
of Micro-
programmed
Controlled
Control Unit

Week 7:
Organization
and Optimization
of Micro-
programmed
Controlled
Control Unit

Week 8:
Organization
and Optimization
of Micro-
programmed
Controlled
Control Unit

Week 9: Memory
Sub-system
Organization

Week 10:
Memory
Sub-system
Organization

Week 11:
Memory
Sub-system
Organization

Week 12:
Input/output
Subsystem

TEXT
TRANSCRIPTS

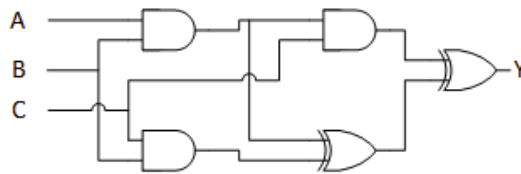
ce De

Accepted Answers:

$Q'+R$

3) The output of the combinational circuit given below is

1 point



☐ $A + B + C$

☐ $A (B + C)$

☐ $B (C+A)$

☐ $C (A + B)$

No, the answer is incorrect.

Score: 0

Accepted Answers:

$B (C+A)$

4) The Boolean expression $AC+BC'$ is equivalent to

1 point

☐ $A'C+BC'+AC$

☐ $B'C+AC+BC'+A'CB'$

☐ $AC+BC'+B'C+ABC$

☐ $ABC+A'BC'+ABC'+AB'C$

No, the answer is incorrect.

Score: 0

Accepted Answers:

$ABC+A'BC'+ABC'+AB'C$

5) Consider the following statements:

1 point

A multiplexer

1. Selects one of the several inputs and transmits it to a single output.
2. Routes the data from a single input to one of the many outputs.
3. Converts parallel data into serial data.
4. Is a combinational circuit.

Which of these statements are correct.

☐ 1, 2 and 4

☐ 2, 3 and 4

☐ 1, 3, and 4

☐ 1, 2 and 3

No, the answer is incorrect.

Score: 0

Accepted Answers:

1, 3, and 4

6) If $(73)_x$ (in base-x number system) is equal to $(54)_y$, the possible values of x and y are:

1 point

☐ 8, 16

☐ 10, 12

☐ 9, 13

☐ 8, 11

No, the answer is incorrect.

Score: 0

Accepted Answers:

8, 11

7) The hexadecimal representation of $(657)_8$ is:

1 point

☐ 1AF

☐ D78

☐ D71

☐ 32F

No, the answer is incorrect.

Score: 0

Accepted Answers:

1AF

8) Let X be the largest number of distinct 16 bit integers in 2's complement representation. Let Y be the number of distinct 16-bit integers in sign magnitude representation. Then $X - Y = ?$ **1 point**

☐ 1

☐ 0

☐ 2

☐ None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

1

9) Given the following binary number in 32-bit (single precision) IEEE-754 format:

1 point

01000001000101000000000000000000

What is the equivalent decimal value?

☐ +8.25

☐ -8.25

☐ +9.25

☐ -9.25

No, the answer is incorrect.

Score: 0

Accepted Answers:

+9.25

10) What would the numbers -45 and 123 be represented in the 8-bit biased notation used in the exponents of single-precision numbers? **1 point**

☐ 01010110, 11011010

☐ 01010010, 11111010

☐ 01110010, 01111010

☐ 01010010, 10111010

No, the answer is incorrect.

Score: 0

Accepted Answers:

01010010, 11111010

Previous Page

End

