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NPTEL

Courses » **Computer Organization and Architecture**

Announcements   **Course**   Forum   Progress   Mentor

Unit 2 - Week 1

Week 1 Assignment 1

Answer the following questions (1 mark)

1) Time taken by a n-bit ripple carry adder is proportional to   **1 point**

- ○ (a) O(n)
- ○ (b) O(log n)
- ○ (c) O(n*log n)
- ○ (d) O(n2)

Accepted Answers:
(a) O(n)

2) The carry look ahead operation (*) can be used to reduce the time complexity of addition   **1 point**
operation because of which of these properties of the operation

- ○ (a) commutativity
- ○ (b) associativity
- ○ (c) distributivity
- ○ (d) closure

Accepted Answers:
(b) associativity

3) The depth of a hardware circuit is evaluated using which of the following techniques   **1 point**

- ○ (a) Divide and Conquer
- ○ (b) Depth First Search
- ○ (c) Topological Sorting
- ○ (d) Branch and Bound

Accepted Answers:
(c) Topological Sorting

4) A Segmentation Fault while generating a user-written program is gener-ated by   **1 point**

- ○ (a) Operating System
- ○ (b) Compiler
- ○ (c) High-Level Language

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○ (d) Interpreter

Accepted Answers:
(a) Operating System

5) Size of virtual memory is limited by   *1 point*

○ (a) Size of RAM

○ (b) Size of External Memory

○ (c) Size of the operating system

○ (d) Size of the address bus

Accepted Answers:
(d) Size of the address bus

6) Task switching is handled by the   *1 point*

○ (a) Compiler

○ (b) Task

○ (c) Operating System

○ (d) Interpreter

Accepted Answers:
(c) Operating System

7) The C-programming language is a   *1 point*

○ High-Level Language

○ Middle-level language

○ Low level language

Accepted Answers:
High-Level Language

8) Functions like printf() in C-programming language transfers the program control to the   *1 point*

○ Compiler

○ Operating system

○ Interpreter

○ Hardware

Accepted Answers:
Operating system

9) The most important constraint of a real-time system is   *1 point*

○ Space

○ Memory

○ Electricity

○ Time

Accepted Answers:
Time

10)Size of a circuit is   *1 point*

○ Area of a circuit

○ Width of circuit

○ Number of connections

○ Number of combinational elements

Accepted Answers:

Number of combinational elements