

What happens if you place a Wait function inside a While Loop?

- ☐ The loop execution slows down based on the Wait time
- ☐ The loop execution speed increases
- ☐ The loop executes without delay
- ☐ The loop stops immediately

What is the primary difference between first-order and second-order system responses?

- ☐ Second-order systems reach steady-state faster than first-order systems
- ☐ First-order systems do not have oscillations, while second-order systems may oscillate
- ☐ First-order systems always overshoot, while second-order systems do not
- ☐ First-order systems are always unstable

Rise time (t_r) is:

- ☐ Time taken for the response to go from 10% to 90% of the final value
- ☐ Independent of system damping
- ☐ Time taken for the response to reach maximum overshoot
- ☐ Time at which the system reaches the first peak
- ☐ Shorter rise time generally means faster system

Shorter rise time generally means faster system.

What is the rise time (T_r) in time response analysis?

- The time taken for the response to go from 10% to 90% of its final value ☐
- The time taken for the response to reach 100% of its final value ☐
- The time taken for the response to stay within a certain percentage (e.g., 2% or 5%) of its final value ☐
- The time taken for the response to reach 100% of its final value ☐

What is the primary objective of a Time Response Analysis experiment?

- To analyze system behavior in the frequency domain ☒
- To determine how a system responds over time to a given input ☐
- To analyze electrical circuit resistance ☐
- To process images in real-time ☐

What is the primary function of the Front Panel in LabVIEW?

- To write textual code ☐
- To display and control the user interface ☐
- To configure hardware settings ☐
- To process and manipulate data ☐

Which structure is used for decision-making in LabVIEW?

- While Loop ☐
- Case Structure ☐
- For Loop ☐
- Sequence Structure ☐

In LabVIEW, what is the main graphical programming element used to create programs?

- Front Panel ☐
- Circuit Diagram ☐
- Flowchart ☐
- Block Diagram ☐

In LabVIEW experiments, the Block Diagram window is mainly used for:

Creating algorithms ☐

Flowchart

Block Diagram 

In LabVIEW experiments, the **Block Diagram** window is mainly used for:

- Creating algorithms ☐
- Connecting inputs and outputs ☐
- Adjusting graphical indicators ☐
- Wiring functions and structures ☐

سؤال 9

تم يتم الإجابة

الدرجة: 2

علم السؤال

What is the primary purpose of a SCADA system?

- To store and retrieve documents ☐
- To monitor and control industrial processes remotely ☐
- To perform complex mathematical calculations ☐
- To process images in real-time ☐

سؤال 10

تم يتم الإجابة

الدرجة: 1

علم السؤال

What is the function of the Case Structure in LabVIEW?

- ☐ It runs loops infinitely
- ☐ It executes all cases simultaneously
- ☐ It acts as a file input/output operation
- ☐ It executes different code paths based on a condition

How does the Case Structure determine which case to execute?

- ☐ Randomly selects a case
- ☐ Uses a Boolean condition only
- ☐ Uses an input value (Boolean, numeric, or string)
- ☐ Always executes all cases

In LabVIEW, what is the function of a Transfer Function block in the Control & Simulation Module?

- ☐ It defines a mathematical function to manipulate data
- ☐ It represents a system's input-output relationship in the Laplace domain
- ☐ It performs image transformations
- ☐ It controls loop execution speed

Which palette in LabVIEW provides mathematical functions like addition and subtraction?

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Which palette in LabVIEW provides mathematical functions like addition and subtraction?

- String Palette ☐
- Boolean Palette ☐
- Numeric Palette ☐
- Control Palette ☐

Which of the following components are found in the Block Diagram?

Functions, Terminals, and Wires ☐

Pages and Sections ☐

Loops and Sheets ☐

Controls and Indicators ☐

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تم بتم الإجابة

الدرجة: 1

علم السؤال

A system with a damping ratio (ζ) greater than 1 is classified as:

Critically damped ☐

Underdamped ☐

Oscillatory ☐

Overdamped ☐

What would indicate an unstable system in time response analysis?

The response reaches the desired final value smoothly ☐

The response continues to grow indefinitely ☐

The response oscillates and settles at a steady value ☐

The response settles within 5% of the final value ☐

The **While Loop** in LabVIEW executes:

- Until a stop button is pressed ☐
- A fixed number of times only ☐
- Until a stop condition is met ☐
- Similar to the "do...while" loop in text-based programming ☐
- Similar to the "for" loop in text-based programming ☐

What does the shift register do in a LabVIEW loop?

- Connects different loop structures ☐
- Breaks the execution of the loop ☐
- Stores and passes values between loop iterations ☐
- Starts and stops the loop execution ☐

What does "DSC" stand for in LabVIEW DSC Module?

- Datalogging and Supervisory Control ☐
- Digital Signal Conversion ☐
- Direct System Control ☐
- Datalogging and System Control ☐

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الدرجة : 2

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سؤال 19

تم يتم الإجابة

الدرجة : 1

علم السؤال

What does "DSC" stand for in LabVIEW DSC Module?

Datalogging and Supervisory Control ☐

Digital Signal Conversion ☐

Direct System Control ☐

Datalogging and System Control ☐

What type of system exhibits no oscillations and reaches steady state gradually?

Critically damped system ☐

Unstable system ☐

Overdamped system ☐

Underdamped system ☐

Settling time (t_s) is defined as:

Only relevant for first-order systems ☐

Time taken for the response to reach maximum overshoot ☐

Usually measured for 2% or 5% tolerance band ☐

Time for the response to enter and remain within a specific percentage of final value ☐

Time at which the system reaches the first peak ☐

In a second-order system, what is the damping ratio (ζ) used for?

- To measure the delay in system response ☐
- To analyze the phase shift in the frequency domain ☐
- To determine how oscillatory the system response is ☐
- To compute the system's gain ☐

LabVIEW is mainly used for:

- Graphical programming ☐
- Data acquisition and measurement ☐
- Control system simulation ☐
- Text-based programming ☐

What is the primary advantage of Simulink in system modeling?

What is the primary advantage of Simulink in system modeling?

It requires no programming knowledge ☐

It can only be used for image processing ☐

It runs faster than C programs ☐

It provides a graphical environment for simulation ☐