القسم: التحكم الآلي أسئلة الامتحان النهائي لمادة: برمجة رسومية لطلبة الفصل:السادس رمز المادة: CT000 التاريخ:0/03/08 التاريخ: 2020/03/08



للفصل الدراسى :خريف 2020 اسم الاستاذ: وليد شنب الزمن: ساعتان 

\*أجب عن جميع الأسئلة:

#### 1. What does the letters in LabVIEW mean?

- a) Laboratory View
- b) Laboratory Virtual Instrument Engineering Workbench
- c) Nothing it is just a word

#### 2. What is the Front Panel?

- a) The first window that appear when starting LabVIEW
- b) The Front Panel is your User Interface
- c) The opposite of the Back Panel in LabVIEW

#### 3. What is the Block Diagram?

- a) The window where you build your blocks
- b) The window where you block unwanted code
- c) The Block Diagram is where you develop the code of your program

#### 4. What is Wires?

- a) Wires handles the Data Flow in LabVIEW
- b) Electric wires to get power to your code
- c) You use wires to short circuit your code

#### 5. What is a Formula Node?

- a) A Calculator
- b) A Node that is connected to a mathematical expression
- c) A Node where you can write mathematical formulas and expressions similar to C code

## 6. Which Company is the vendor of the LabVIEW software?

- a) National Instruments
- b) Microsoft
- c) Mathworks

### 7. What kind of Programming concept is used in LabVIEW?

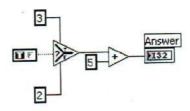
- a) Graphical Programming
- b) Text-based Programming
- c) Interactive Programming

#### 8. What is this?



- a. A Constant
- b. Boolean Constant with value True
- c. A Boolean Control

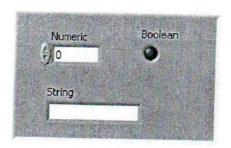
#### 9. What is the Answer?



a. 8

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- b. 7
- c. 5
- 10. What is this?

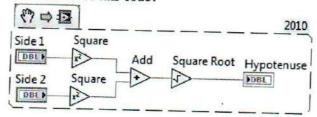


- a. Array
- b. A User Interface
- c. Cluster

#### 11. What is this?



- a) Numeric Control
- b) Numeric Indicator
- c) A Number
- 12. Numeric controls are different from numeric indicators because they have a \_\_\_\_\_\_ background and \_\_\_\_\_\_ background
  - a) White, Labels
  - b) Grey, Labels
  - c) White, Increment/Decrement Buttons
  - d) Grey, Increment/Decrement Buttons
- 13. To switch between the front panel and block diagram, select Window >> Show Block Diagram/Front Panel, or simply press \_\_\_\_\_\_.
  - a) Ctrl-E
  - b) Ctrl-Z
  - c) Ctrl-Shift-Y
  - d) Ctrl-B
- 14. What is the correct order of execution of this code?



- a) Square Root, Add, Square Functions in Parallel
- b) Add, Square Root, Square Functions in Parallel

لمادة: برمجة رسومية	أسنلة الامتحان النهاني
التاريخ:2020/03/08	
شنب الزمن: ساعتان	21 اسم الأستاذ: وليد

القسم: التحكم الالي لطلبة الفصل: السادس



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Square Functions in Parallel, Add, Square Root

# 15. . The \_\_\_\_\_ chooses the best tool based on where the mouse pointer is placed in the LabVIEW environment.

- a) Wiring Tool
- b) General Tool
- c) Automatic Tool Selector
- d) Operate Tool
- 16. To find a quick description of an object in the LabVIEW environment, simply turn on \_\_\_\_\_\_by pressing \_\_\_\_\_ and hovering over the object.
  - a) Detailed Help, Ctrl-I
  - b) Context Help, Ctrl-U
  - c) Context Help, Ctrl-H
  - d) LabVIEW Help, Ctrl-Z

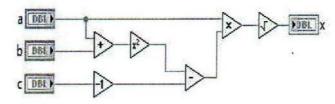
#### 17. How do you document a VI so that the description appears in the Show Context Help popup window?

- a) Use the VI Properties Documentation window
- b) Type in the Show Context Help window
- c) Create a free label on the front panel
- d) Edit the LabVIEW help files

#### 18. Which of the following is the best method to update an indicator on the front panel?

- a) Use a Value property node
- b) Wire directly to the indicator terminal
- c) Use a local variable
- d) Use a functional global variable

#### 19. Which equation is equivalent to the code?



$$x = \sqrt{a \times ((a+b)^2 - (c-1))}$$

a)

$$x = \sqrt{a \times ((c-1) - (a+b)^2)}$$

$$x = \sqrt{a \times ((a+b^2) - (c-1))}$$

c)

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$$x = \sqrt{a^2 \times ((a+b)^2 - (c-1))}$$

#### 20. Which of the following statements is FALSE?

- a) A SubVI connector pane defines where to wire inputs and outputs
- b) The color of a SubVI connector pane terminal matches the data type it is connected to
- c) You must have an icon/connector pane to use a SubVI
- d) A SubVI icon can be edited from the functions palette

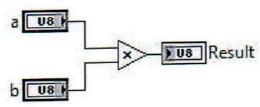
### 21. The Error list shows all of the following EXCEPT:

- a) Items with errors
- b) Errors and warnings
- c) Details about the warnings
- Error Codes

### 22. Why is LabVIEW a data flow programming language?

- a) It uses icons instead of text to create applications
- b) The flow of data through nodes on the block diagram determines execution
- c) It does not have a Goto function to control execution
- The memory location in which data is stored changes each iteration

## 23. If the value in a is 2 and b is 128, what value does the Result indicator display after the VI executes?



- -128
- 0 b)
- 255 c)
- 256

### 24. In what instance would you use the Probe tool rather than Highlight Execution?

- a) To see the flow of data
- b) To see the value of a wire in real time
- To look into a SubVI, as the process is running
- To slowdown the VI to show values in wires

## 25. In the figure below, what will Result equal when this calculation is executed?

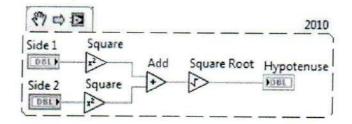
#### 28. Which of the following statements is false?

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a. A SubVI connector pane defines where to wire inputs and outputs

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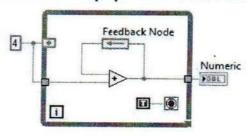
- b. The color of a SubVI connector pane terminal matches the data type it is connected to
- c. You must have an icon/connector to use a SubVI
- d. A SubVI icon can be edited from the functions palette
- 29. What is the correct order of execution of this code?



- a. Square Root, Add, Square Functions in Parallel
- b. Add, Square Root, Square Functions in Parallel
- c. Square Functions in Parallel, Add, Square Root

#### 30. Which of the following statements is NOT valid

- a. You can make a Cluster of Clusters.
- b. You can make an Array of Arrays.
- c. You can make a Cluster of Arrays.
- d. You can make an Array of Clusters.
- 31. What value does the Numeric indicator display after this code executes?



- a. 0
- b. 4
- c. 8
- d. The While Loop iterates indefinitely