

Week 6 Pre-reading quiz

Test your Knowledge for Week 6!

Question 1 *Submitted Jun 10th 2022 at 11:36:50 am*

A conveyor belt carries potatoes past a worker. The worker removes any that are too small or too large. Which of the following selection structure most closely emulates the worker?

- ☒ if trap
- ☐ if ... else ...
- ☐ multi-way
- ☐ none of the above

Question 2 *Submitted Jun 10th 2022 at 11:37:27 am*

Consider the following **if trap**:

Which of the following will cause a **compile** error if a semi-colon (;) is inserted at the specified position? Choose all that apply.

- ☒ Immediately after the **if** keyword
- ☐ Immediately after)
- ☐ Immediately after {
- ☐ Immediately after }

☒ between parentheses ()

☐ If you think none of the above will cause a compile error, select this option

Question 3 Submitted Jun 10th 2022 at 11:38:05 am

Consider the following **if trap**:

Which of the following will cause a **logic** error if a semi-colon (;) is inserted at the specified position?

☐ Immediately after the **if** keyword

☒ Immediately after)

☐ Immediately after {

☐ Immediately after }

☐ If you think more than one of the above will cause a logic error, select this option

Question 4 Submitted Jun 10th 2022 at 11:38:25 am

Consider the following code:

Which of the following is true?

☐ The code does not compile

☒ It cannot be recoded as a single if trap

- ☐ It can be recoded as a single if trap using the condition $(x \geq 1 \ \&\& \ x \leq 5)$
- ☐ It can be recoded as a single if trap using the condition $(x \geq 1 \ || \ x \leq 5)$
- ☐ There is no value of x that will result in the statement $x = 0$ executing

Question 5 Submitted Jun 10th 2022 at 11:38:46 am

Which of the following is NOT true about an **if ... else ...** selection control structure?

- ☐ It delineates 2 statement blocks
- ☒ On any given execution of the structure either one or both of its statement blocks can execute
- ☐ If the structure's condition is **c** then the implied else block's condition is **!c**
- ☐ If the structure's condition is **c** then it could be re-coded as 2 sequential if traps with conditions **c** and **!c** given the following condition:
- ☐ If you think all of the above are true, select this option

Question 6 Submitted Jun 10th 2022 at 11:39:18 am

If a multi-way selection structure has 5 conditions and an else block what is the minimum number of statements blocks that can execute in any given execution of the structure?

- ☐ 0
- ☒ 1
- ☐ 4
- ☐ 5

- ☐ If you think not enough information has been given to answer the question, select this option

Question 7 Submitted Jun 10th 2022 at 11:39:41 am

If a multi-way selection structure has 5 conditions and NO else block what is the minimum number of statements blocks that can execute in any given execution of the structure?

- ☒ 0
- ☐ 1
- ☐ 4
- ☐ 5
- ☐ If you think not enough information has been given to answer the question, select this option

Question 8 Submitted Jun 10th 2022 at 11:39:58 am

If a multi-way selection structure has 5 conditions how many levels of nesting does it have?

Note: one control structure nested inside another counts as one level of nesting.

- ☐ 0
- ☐ 1
- ☒ 4
- ☐ 5
- ☐ If you think it depends on whether there is a final else block or not, select this option

Question 9 Submitted Jun 10th 2022 at 11:40:18 am

If two conditions in a multi-way selection structure are NOT mutually exclusive which of their statement blocks will execute if the conditions are both true on a given execution of the structure?

- ☐ Neither because it's a compile error
- ☒ Only the first in textual order
- ☐ Only the last in textual order
- ☐ Both statement blocks will execute
- ☐ If you think not enough information has been given to answer the question, select this option