

Honor Pledge

On my honor, I have neither given nor received any unauthorized aid on this quiz.

By typing your first and last name in the space provided below you are electronically signing to indicate that:

(1) You are the person who is taking this quiz.

(2) You read and understood the Honor Pledge and you agree to be bound by it.

Write your answer below:

Xinhao Luo

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Questions 1-5 below refer to the Pascal-like program:

```
procedure main

  x : integer := 1 //declaration and initialization of integer variable x in main

  procedure A(n : integer)
    if n < 200
      x := x + 1
      B(n+1)
    else
      write (x) /* writes x on console */

  procedure B(m : integer)
    x : integer := 0
    A(m)

  /* begin of body of main */
  A(0)
  /* end of body of main */
```

Question 1. (2pts) The *static link* for a frame of B (referred to as the *current frame*) points to

Select one:

☐ the most recent frame of B (other than the current frame)

☒ the frame of main

☐ the most recent frame of A before the current frame

☐ sometimes it points to a frame of A and sometimes it points to a frame of B

Clear

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Question 2. (2pts) The *dynamic link* for a frame of B (referred to as the *current frame*) points to

Select one:

☐ the most recent frame of B (other than the current frame)

☐ the frame of main

☒ the most recent frame of A before the current frame

☐ sometimes it points to a frame of A and sometimes it points to a frame of B

Clear

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Question 3. (2pts) Under static scoping rules, x in A refers to

Select one:

☒ x in main

☐ sometimes it binds to x in main and sometimes to B's x

☐ B's x

Clear

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Question 4. (2pts) What does the program print under static scoping rules? Enter just one number on a single line in the first line of the text area below with no whitespace.

Write your answer below:

201

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Question 5. (2pts) Under dynamic scoping rules, x in A refers to

Select one:

☐ x in main

☒ sometimes it binds to x in main and sometimes to B's x

☐ B's x

Clear

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Question 6. (2pts Extra credit) Willy Wazoo is writing a *verifying compiler* that (among other things) would guarantee that if a program compiled successfully, then when it executed, all loops would terminate. Willy's compiler would be an example of

Select one:

☐ dynamic syntax analysis

☒ static semantic analysis

☐ static syntax analysis

☐ dynamic semantic analysis

Clear

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By clicking "Submit" you are confirming that you have read, understand, and agree to follow the Academic Integrity Policy.

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Test 7 Question 6 submission	Show Details
2 / 2	HIDDEN: Test 8 Question 1
2 / 2	HIDDEN: Test 9 Question 2
2 / 2	HIDDEN: Test 10 Question 3
2 / 2	HIDDEN: Test 11 Question 4
2 / 2	HIDDEN: Test 12 Question 5
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Test 14 Check Honor Pledge	Show Details
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