

CS 3723: Programming Languages

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You Name:

1. Which of the following are steps taken when entering an inline block? Which are taken when entering a function block?
 - (a) Push a new activation record onto the runtime stack
 - (b) Set control link of the new AR to the previous AR on top of the stack.
 - (c) Modify the runtime stack pointer to point to the new AR.
 - (d) Set access link of the new AR to have the same value as its control link.
 - (e) Set access link of the new AR to have the same value as the environment pointer of the function closure.
 - (f) Set return address and return result address for the new AR
 - (g) Set parameter values for the new AR
 - (h) Set local variable values for the new AR
2. Which of the following statements about function closures are incorrect?
 - (a) A function closure contains two fields: the environment pointer and the code pointer.
 - (b) When functions are passed as parameters or returned as result, a function closure is used as the value of the function.
 - (c) The environment pointer of a function closure points to the Activation Record of the block where the function is defined.
 - (d) The code pointer of a function closure points to the first instruction of the function definition.
 - (e) If function definitions cannot be nested, a function closure only needs to remember code pointer and does not need to remember the environment pointer.
 - (f) If functions cannot be returned as result, a function closure only needs to remember code pointer and does not need to remember the environment pointer.