CS 3723: Programming Languages

Apr 2, 2012

You Name:

1. Which of the following is the correct definition of a function closure.

   (a) The value of a function definition which contains the address of the function body and the environment (activation record) where the function is defined.

   (b) The activation record of a function being invoked.

2. When a functions f is being returned as the result of another function in ML, which of the following statements is correct?

   (a) All the non-local variables accessed by f need to be saved in the heap when the environment of f (i.e., the activation record of the block that defines f) is popped off the runtime, so that these variables remain valid when f is eventually called.

   (b) The function f should not be allowed to use any non-local variables because there variables may have been popped off the runtime stack when f is eventually called.