



Programming I (Python)

Assignment 1

1. In OCaml, When an expression is evaluated, which of following things may happen:
 1. It may evaluate to a value of the same type as the expression.
 2. If typechecked successfully, it will never raise an exception.
 3. It may not terminate.
 4. It is guaranteed to terminate.
2. of the following will typecheck:
 1. `1 +. 2`
 2. `1 + 2`
 3. `1. +. 2.`
 4. `1.0 + 2.0`
 5. `1.0 +. 2.0`
 6. `1. +. 2`
3. Which of the following operators have left associativity:
 1. `+`
 2. `<>`
 3. `!=`
 4. `~-`
 5. `mod`
 6. `lsl`
 7. `lnot`
4. The name of the OCaml debugger is:
 1. `ogdb`
 2. `odebug`
 3. `ocamldebug`

4. `ocamlgdb`
5. Which of the below are true about OCaml type system?
 1. Statically typed
 2. Dynamically typed
 3. Implicitly typed
 4. Explicitly typed
 5. Both implicitly and explicitly typed
6. Which are possible ways of executing an OCaml program:
 1. Write on the OCaml toplevel.
 2. Write in a file and run with `ocaml` command.
 3. Write in a file, compile with `ocamlc` command and run the executable.
 4. Write in a file, compile with `ocamlopt` command and run the executable.
 5. Write in a file, compile with `ocamlcom` command and run the executable.
7. When we use one of the OCaml compilers to compile an OCaml program `program.ml`, the compiler name and object code file name are related as follows:
 1. `ocamlc` \mapsto `program.mlo`
 2. `ocamlopt` \mapsto `program.mlo`
 3. `ocamlc` \mapsto `program.mlc`
 4. `ocamlc` \mapsto `program.cmo`
 5. `ocamlc` \mapsto `program.cmx`
 6. `ocamlopt` \mapsto `program.cmo`
 7. `ocamlopt` \mapsto `program.cmx`
8. Which of the following are valid variable names in OCaml:
 1. `abc`
 2. `ab_c`
 3. `Abc`
 4. `Ab_c`
 5. `ab-c`
 6. `ab1`
9. What are the features of a first class object in a programming language?
 1. Can be called as a procedure
 2. Can be passed as a parameter to a function
 3. Can be used as a type
 4. Can be returned from a function as a value

5. Can be stored in a data-structure
 6. Can be imported as a module
10. A working definition of a “safe” programming language is:
1. A program written in the programming language can’t ever fail.
 2. A valid program will never fault because of an invalid machine operation.
 3. There are no runtime type errors.
 4. Type conversions are disallowed.