Programming I (Python)
Assignment 1

1. Which of the following are native types in OCaml?
    1. int
    2. float
    3. char
    4. string
    5. list
    6. tuple
    7. dictionary
    8. record
    9. class
    10. modules
2. 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
3. Which of the following operators have left associativity:
    1. +
    2. <>
    3. !=
    4. ~−.
    5. mod
    6. lsr

7. lnot

4. 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 guaranteedd to terminate.

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 of the following are true about OCaml commands:

    1. They are pure commands.
    2. They always produce a value.
    3. They may produce a value.
    4. They do not produce a value.

7. 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.

8. 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

9. 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

10. Which of the following are true about OCaml programs:

    1. OCaml programs must always be written on the top loop.
    2. OCaml programs must be written in a file like in C.
    3. OCaml programs must always be compiled explicitly before being executed.
    4. OCaml compiler always produces native machine code as output as in C.
    5. OCaml compiler always produces bytecode as output as in Java.
    6. OCaml compiler can be used to produce either machine code or byte code as per user preference.