Programming I (Python)
Assignment 1

1. Which of the following operators have left associativity:
    1. +
    2. <>
    3. !=
    4. ~−.
    5. mod
    6. lsr
    7. lnot
2. 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.
3. 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.
4. 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.
5. 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

6. 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

7. 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

8. Which of the following statements is true about OCaml expressions:

    1. OCaml expressions can't have side-effects.
    2. OCaml expressions evaluate to a single value.
    3. Every expression has exactly one type.
    4. The type of the expression depends of the values evaluated so far.

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. 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