

	Postgraduate level - Second year Exercise sheet #1 – Basics in Scala	
	<i>Subject : Functional programming</i>	<i>Date : 2020 – 2021</i>
		<i>Duration : 90 minutes</i>
		<i>Number of pages : 2</i>

Exercise 1. *Without using Scala console*, give possible type(s) for following expressions.

- `("42", 42, 42.0)`
- `("42", (42, 42.0))._3`
- `("42", (42, 42.0))._2`
- `("42", (42, 42.0))._2._1`
- `if (true) null else 42` (*Hint: null has type Null*)
- `if (true) 42 else 42.0` (*dumb...*)
- `{ lazy val x : AnyRef = "42" ; if (false) x else "42" }` (*... and dumber!*)

Exercise 2. *Without using Scala console*, give the value of following expressions.

- `val res = println(42)`
- ```
val res = {
 val x = 1
 {
 val y = 2
 {
 val z = 3
 x + y + z
 }
 }
}
```
- ```
val res = {
  val x = 1
  val y = 2
  val z = 3
  x + y + z
}
```
- ```
val res = {
 val (x, y, z) = (1, 2, 3)
 x + y + z
}
```

```
e. val res = {
 val taux = 2
 val alpha = 5
 val coef = taux * alpha + alpha
 taux * alpha + coef * alpha
}
```