Herramientas Avanzadas para el Desarrollo de Aplicaciones
march 2012

- The exam has a duration of 30 minutes.
- All the questions have one (and only one) valid answer.
- **Two** wrong answers cancel a right one.
- It is preferable that you use a pencil instead of a pen.
- You have to deliver this sheet to the professor once you are finished.
- **Modality: English**

Name: _____

1. In Vala the namespaces can be created like this:
    - A. Namespaces...? What is that?.
    - B. `using namespace name;`
    - C. `namespace name` {...}.
    - **D. None of above.**

2. In Vala the class `ArrayList<T>` belongs to ...
    - A. The language, it is a basic data type.
    - B. To nothing. that class does not exist.
    - **C. to an external library.**
    - D. None of above.

3. In Vala the clause `requires` represents:
    - A. An exception.
    - B. A postcondition.
    - **C. A precondition.**
    - D. None of above.

4. Git is a control version system:
    - A. Centralized.
    - **B. Distributed.**
    - C. Centralized in some cases, distributed in others.
    - D. None of above.

5. The `commit` operation of Git:
    - A. Transfers the data from the local repository to its master copy.
    - **B. Transfers the changes done in the work copy to the local repository.**
    - C. Transfers the changes done in the work copy to a remote repository.
    - D. Clones repositories.

6. The `branch` operation of Git:
    - A. Is the only one we can use for creating branches.
    - B. Is the only one we can use for switching from one branch to another.
    - **C. Is the only one we can use for renaming a branch.**
    - D. None of above.

7. A `signal`:
    - A. Can only have connected one handler.
    - B. Can only be connected to methods of a class.
    - **C. Can have connected several handlers.**
    - D. None of above.

8. The signature of a handler connected to `signal`:
    - **A. Is delimited by the signature of the signal.**
    - B. Is not delimited by the signature of the signal.
    - C. It depends if the class to which it belongs is inside a namespace.
    - D. None of above.

9. A `signal` with `public` visibility:
    - A. We can only connect it to public handlers.
    - B. We can only connect it to independent functions from any class.
    - **C. We can connect to it any handler independently of its visibility.**
    - D. None of above.

10. In Vala in order that the mechanism of `signals/handlers` work:
    - A. We do not have to do anything, the language provides it.

     B. We have to derive from the GLib.Object class.

     C. We have to compile the code with an special option.

     D. We have to derive from the Gtk.Object class.

11. In Vala a λ function can act as a handler...

     A. Never.

     B. Always.

     C. When its parameter list coincides with the ones of the signal.

     D. When it has no parameters.

12. In Vala a signal...

     A. Can never have an implementation.

     B. Can always have an implementation.

     C. can only have an implementation when it is declared as `virtual`.

     D. None of above.

13. The Gtk+ library...

     A. Implements its `signals/handlers` technology.

     B. Takes profit of the `signals/handlers` technology from `GLib/GObject`.

     C. Does not use the concept of `signals/handlers`.

     D. None of above.

14. In order to be able to use the Gtk+ library in Vala...

     A. We have to call the compiler with the option "`--pkg gtk+-2.0`".

     B. We do not need any special compilation option.

     C. We have to call the compiler with the option "`--pkg gmodule −2.0`".

     D. It is necessary building previously the graphic interface of the application using `glade`.

15. The user interfaces generated by `glade`...

     A. Are stored in binary files.

     B. Are stored as Vala source code.

     C. Constitute the only way of doting of graphic interface to an application that uses `Gtk+`.

     D. Are text files with `XML` format.