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Exercise Basic computer questions

No questions are allowed: if you have doubts on the theoretical questions fell free to add specifications on this paper and in this case your written answer will be part of the evaluation (positively or negatively). You have 10 minutes starting from now.

For each sentence, check either the TRUE or the FALSE box.

**TRUE  FALSE  You have written your name above on this paper IN A READABLE WAY**

**1 KB is**

TRUE  FALSE  approximately 1000 bits  
TRUE  FALSE  larger than 1 MB  
TRUE  FALSE  larger than 1 TB

TRUE  FALSE  larger than 1 GB

**Open source software**

TRUE  FALSE  is proprietary

TRUE  FALSE  you have the permission to modify it

TRUE  FALSE  you can download it for free but you cannot modify it

**Windows 10**

TRUE  FALSE  appeared on the market in 2012  
TRUE  FALSE  Pro edition is installed at unibz  
TRUE  FALSE  is an operating system

**This is a typical extension for a web page**

TRUE  FALSE  .exe

TRUE  FALSE  .html

TRUE  FALSE  .htm

TRUE  FALSE  .docx

**When you double click on a file which is a program**

TRUE  FALSE  the operating system searches for an appropriate program to open the file  
TRUE  FALSE  the operating system asks you with which file do you want to open it  
TRUE  FALSE  the file runs

**When you are calling via Skype from your computer a friend on another computer**

TRUE  FALSE  your computer is a server   
TRUE  FALSE  your computer is a client  
TRUE  FALSE  your friend’s computer is a server  
TRUE  FALSE  your friend’s computer is a client

**TURN PAGE 🡪**

**This is something that can happen if your passwords get stolen**

TRUE  FALSE  money is transferred out of your bank account   
TRUE  FALSE  your personal documents are deleted  
TRUE  FALSE  your personal documents are modified  
TRUE  FALSE  the email that other people sent to you are read

**This is a suggested practice for your passwords**

TRUE  FALSE  avoid inserting personal information in your passwords   
TRUE  FALSE  change all your passwords every week  
TRUE  FALSE  use strange characters in your password  
TRUE  FALSE  use long passwords

**~~According to Italian law 196/2003~~ this technique can be used as a replacement for a password**

TRUE  FALSE  fingerprint recognition

TRUE  FALSE  retina scanning

TRUE  FALSE  USB token

TRUE  FALSE  OTP

**You may get a virus**

TRUE  FALSE  plugging a USB pendrive into your computer  
TRUE  FALSE  while visiting untrustworthy websites  
TRUE  FALSE  opening email attachments  
TRUE  FALSE  creating a completely new Word document on your computer  
  
**A SPAM message is characterized by being**

TRUE  FALSE  not wanted by you  
TRUE  FALSE  solicited by you, such as a confirmation email  
TRUE  FALSE  specifically sent to you

**This is a good place to do a backup**

TRUE  FALSE  a second external hard disk  
TRUE  FALSE  a large USB pendrive  
TRUE  FALSE  an automatic online backup system  
TRUE  FALSE  a dedicated directory on your primary hard disk

Exercise Relational databases

You have only 3 sheets of blank paper, do not ask for extra ones. You have 35 minutes starting from now.

Draw the schema of this database, using at least (more if necessary): 3 tables, a junction table, 15 fields in the entire database. Try to make the database as complete as possible, keeping it simple and not contorted. You must indicate very clearly field names, Access field types, primary keys, relations with their “1” and “many” sides and the fields involved in the relations, required fields, indexed fields, at least two validation rules. For all the fields whose name is not obvious, you must also include a small comment that lets everybody understand what the field should contain. You must also justify non-standard choices.  
Moreover, suggest two new queries (in English, not in Access nor in SQL): one that involves at least two tables and is not a summary query and another one that needs a summary query to be implemented.

**Terraces’ plants**: suppose that you have a green thumb and have 3 terraces full of plants, for which you obviously want to build a temporal database. The database handles each single plant, their vases (in each vase there can be more than one plant and suppose that plants can never change vase), the type of soil and irrigation for each vase (which never change with time) and in which terrace each vase is located (which can change with time). The database must be able to answer the question “How many rose plants did we have last summer on the terrace 2?”.