

**Aspectos Sócio Profissionais de Informática**  
**Teste de 15 de Maio de 2019**

**STUDENT NAME:** \_\_\_\_\_ **Nº:** \_\_\_\_\_

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**Test duration is 1 hour with a tolerance of 10 minutes. In the multiple-choice questions, wrong answers incur in a PENALTY of up to 20%, and the sum of the penalties in a question may result in a negative total.**

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**For each multiple choice question you must collect (replicate) here the option numbers you have chosen for your answer. ONLY THE OPTIONS LISTED HERE WILL BE CONSIDERED VALID.**

- |               |               |
|---------------|---------------|
| 1)            | 2)            |
| 3)            | 4)            |
| 5)      ..... | 6)      ..... |
| 7)            | 8)            |

**1)** For many years, the Microsoft file sharing protocol SMB (known in the "Unix/Linux community" as Samba) was implemented in non-Microsoft systems through "reverse engineering" of the code and traffic analysis (*packet sniffing*) among hosts. SMB was not patented, but was not only a registered trademark but also a "trade secret". **Therefore, the public-domain implementation of Samba was: (choose from none to all options)**

- a) a violation of the copyright law
- b) a violation of the corporate secrets law
- c) illegal, because it involves industrial espionage
- d) illegal, as SMB was a registered trademark
- e) legal, because reverse engineering of non-patented products is allowed
- f) illegal, because although SMB was not patented, reverse engineering of products is not allowed

**2)** Which, among the following items available in sites (other than yours) do require citations if reused? **(choose from none to all options)**

- a) blogs
- b) emails
- c) images
- d) newspaper news
- e) recorded sounds of animals (e.g. lion's roar)

**3)** Which of the following data items linked with a **user holding an account** in a Web-accessible service **ARE NOT considered personal data** of that user according to GDPR? **(choose from none to all options)**

- a) Name, address, sex, religion and political affiliations
- b) Web pages accessed on that service' website
- c) The user's browser manufacturer (e.g., Microsoft, Apple,...)
- d) Source IP address used to access the service
- e) Date of birth of the user
- f) User's HTTP session cookies
- g) Data about services the user has under contract (e.g. service, hour, price, payment options, ...)
- h) Manufacturer of the CPU on the user's computer recorded for every visit of the user to the service
- i) HTTP persistent cookies associated by the service to the user
- j) A unique number, associated with the user's browser, computed with JavaScript code associated to the service page, executed automatically when the access is performed.

**4)** Considering the protection of the user's privacy when using Internet services, which of the following statements **are true** as far as the GDPR is concerned? **(choose from none to all options)**

- a) When a user creates an account in a "free" service that has a usage and data processing policy, and asks for the user's permission, it is not necessary to ask for the user's date of birth.
- b) Any WEB page on the Internet must NECESSARILY have a consent policy for access even if the only cookies used are HTTP session cookies and the page merely provides information.
- c) When receiving an HTTP connection, WEB-service A retrieves data from a third party, service B, to assert if the originating IP is not flagged as an attacker. Service B does not log the requests, but anyway a consent mechanism must be used to get the user's permission to use service B.
- d) Any service A, accessible through the WEB, which uses the "Google Analytics" service to get aggregated and anonymized data about its own (A) site, must report that to the user and ask for permission before allowing the access to go through.

**5)** As you know, following a court trial, judges decide penalties, or decide about things such as prisoner week-end leaves or conditional release/parole, etc., using their knowledge about law and its application, as well as a thorough gathering of facts and characteristics of the defendants. It is possible to try to create models and representations of all that information and, as a cost-cutting - of time and money - strategy, use **machine learning algorithms** to replace judges.

Present **two scientific** and **irrefutable** arguments **against** the replacement of judges by algorithms.

**6)** Present **two** examples of situations where the usage of information systems accessible over the Internet would be, in cases of problems, much more positive from the users' point of view if both corporate responsibility policies and compensatory indemnisations to the users were put in place.

**7) A professional code of conduct is a kind of contract between the professional and: (choose from none to all options)**

- a) the professional Association (e.g. Medical Association)
- b) the syndicate
- c) the Society (general "public")
- d) his client(s)
- e) his/hers colleagues in the company/organisation
- f) his/hers colleagues with the same profession (in general)
- g) his employer
- h) the owners of the company/organisation he/she works for

**8) You are responsible for the technical department of a Facebook-like social network with "free" accounts, based on user profiling techniques to support user-directed advertising services. The policies of the network are in accordance with the GDPR. To accept the registration of a new user, your network uses some mechanisms to verify the authenticity of the new user (if the email is right, if the phone number is right, if he/she is older or younger, if he/she holds a credit card, etc.) and asks for consent to the processing of the data for the purpose of advertising.**

The board of directors is studying alternatives to increase the number of users on the network and asked you what you think about allowing user accounts to be created without much verification of the information given by the users, to make it easier to have anonymous accounts and/or speed up the registration process.

You are a member of ACM and respect its code of conduct. So, which of the following attitudes are in accordance with the code? **(choose from none to all options)**

- a) Given that the purpose is to improve the financial balance of the company, which is important for its survival, for loyalty to the company owners you endorse the proposal.
- b) Since you are in favour of freedom of expression and you also support the right to privacy of users, you endorse the proposal.
- c) You warn that these new accounts allow the increase of the phenomenon of "fake-news" and other types of disinformation, as well as the diffusion of illegal content and therefore you advise prudence in the adoption of the proposal.
- d) Since you want to improve the financial balance of the company which is important for the survival of your job, you endorse the proposal.
- e) Since you are in favor of freedom of expression and also support users' right to privacy, but you are against infringing property rights, you point out that this proposal would increase the possibility of the network being used to spread illegal content and so it would be necessary to implement mechanisms based on machine learning techniques that would a priori control user uploads (thus delaying or denying their visibility to other users).