STUDENT NAME: _____ **Nº:** _____

Test duration is strictly 1 hour. In the multiple-choice questions, wrong answers incur in a PENALTY of up to 25%, and the sum of the penalties in a question may result in a negative total.

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)**

Pick only one of the below themes and develop it, filling the boxes on this page and on the back. ONLY this page should be handed out to the instructors at the end of the test.

Theme 1 - Define Moral, Ethics and Law and discuss the differences between them. Furthermore, also discuss the following topic: are all those rules about how we should conduct ourselves necessary, or some of them may be disregarded as superfluous?

Tema 2 - The pervasiveness of broadband communications, mobile and landline, fueled by hardware and software available at costs that almost everybody can pay, allows us to be "always connected" (via smartphone and video, e-mail, etc.), something that in a not too distant past was not possible. However, we distance ourselves more and more from face-to-face interactions [Martin Carnoy].

The pace of the introduction of new information and communication technologies is, in itself, and as far has social interactions are concerned, a poor indicator for the near future [some authors]. Comment these statements and, if you agree with them, do offer some clues to minimize the harmful effects (while keeping the benefits we all know and accept)

Tema 3 - One way to fight organizations that carry out attacks based on Internet security deficiencies, or weaknesses in the control on the use of resources on the Internet, could be to counterattack them using these same internet weaknesses. Arguments against and in favor of these defense techniques can be put into practice by any public or private institution as a way of alleviating the weaknesses of the network itself.

You are responsible for the interpretation of the theme. Organize your ideas before putting them on paper; if you write outside the boxes, you will be penalized.

Number of the chosen theme:

Introduction - presenting the theme and its context:

Most relevant aspects the reader must retain

Most important conclusions for the reader to retain

1) The **two** technologies mainly responsible for the "Information Era" we are living on are:

1. The smartphone
2. The browser
3. AI technologies
4. The internet
5. Mobile networks
6. The low cost of computational devices
7. High-speed / broadband networks
8. Cloud technologies

2) The technological breakthrough that was **solely** responsible for the **largest** reduction in the cost of computers was (**choose only one option**):

1. The electronic valve (a.k.a. tube)
2. The integrated circuit
3. (The invention of) Plastic
4. The optical fiber
5. The transistor
6. Moore's law
7. The operating system
8. High-level languages

3) Considere as seguintes afirmações no quadro da discussão das diferentes correntes filosóficas sobre o que são atitudes eticamente corretas e indique quais das afirmações são verdadeiras

Consider the following statements and how different philosophical currents (or lines) reason about what are ethically correct attitudes. Now, indicate which of the statements below are true (**it may be possible that none, or all, are true**):

1. Not all philosophical currents that define ethically correct behaviour are based on moral rules.

2. According to the philosopher Immanuel Kant, reason overrides desire

3. In all ethical currents the rule "ends justify the means" is valid as long as the ends eventually prove themselves positive.

4. In all ethical currents reason does not always override everything else.

5. Ethical currents based on the "divine will" can not be used to decide whether a post about religion on a social network is acceptable.

6. According to the philosopher Immanuel Kant, a categorical imperative is a rule whose use has to be carefully weighed according to the results that rule imposes on the people involved.
   .
7. "Do not do to others what you do not want them to do to you" is an essential rule for the ethical current "Act Utilitarianism".

8. All the different philosophical currents that define ethically correct behaviours consider that they (correct behaviours) are innate in humans.

4) Select all (**may be none or all of them**) true statements that can complete the sentence "The pervasiveness (high degree of penetration in daily life and across the globe) of communications that support of digital services in real time (voice, image, geolocation) ..."

1. Is good for family and friendship relations with those that are far away, because it gives the participants a very vivid contact, which allows them to express emotions in a genuine way, almost as if they were "face-to-face".

2. Is good for labor relations because it gives the participants a very vivid contact, which translates into better results in all kinds of situations: meetings, interviews with candidates, performance evaluations (of the employee), definition of wages (salary), etc.

3. Is good for young adults (17-25) because it offers them (through the internet) an important tool for their development and inclusion in life and for parents a way of contacting them - provided parents have not blocked any type of services.

4. It is an absolute evil because it offers technologies and devices that exacerbate attitudes / behaviours that promote distancing from family, friends, and society in general, and induces / exacerbates addictions (e.g., compulsive gambling).

5. Is good for young adults because it offers them (via the internet) an important tool for their development and inclusion in life and for parents a way of contacting them - provided they have taken care to define with their sons/daughters the terms and conditions for a responsible usage.