

Número de ordem: _____

PROVAS DE COMPETÊNCIA 2024/1

ATENÇÃO

O cartão de respostas será distribuído após transcorridos 30 minutos de prova. Preencha-o com cuidado, pois o cartão de respostas é único e não será substituído. Ao final, entregue ao fiscal de sala a prova e o cartão de respostas e assine a ata de presença.

Inglês

Nome: _____

Prédio: _____ Sala _____

Língua Inglesa

TEXTO 1

01

02 Industry 4.0 is the next step in our global, digital, manufacturing and industrial evolution. The human race is
03 constantly, inevitably, innovating, and the last few years have seen some of the most significant leaps in
04 digitisation in a generation.

05 But this “invention”, amongst many others, is simply the most recent iteration within what we now call Industry 4.0,
06 or the fourth industrial revolution – the manufacturing industry’s continual, worldwide, multi-faceted evolution. The
07 payoff of these great leaps in manufacturing output and product are new ways to work, create, live, provide food
08 and energy, manage the economy, socialise, and keep people healthy.

09 As discussed below, every generation has had its evolutionary “moment” – a creation or invention that shifts the
10 manufacturing industry status quo, opening up new avenues of possibility. Those inventions point to a change in
11 how we live and perceive progress and typify each industrial revolution. Think about the steam engine, the
12 assembly line, nuclear power, and air travel – all indicative of a new normal, a new way of living and working that
13 changed the trajectory of humanity, and all driven from the workshops and engine rooms of manufacturers
14 worldwide.

15 But for the layperson, what on earth is Industry 4.0 and the fourth industrial revolution, and why does it matter that
16 we label these industrial ages as such? We can see the rhythms of history within each age and learn from how
17 macro-changes affect people to ensure our next industrial revolution doesn’t leave anyone behind. Here is a
18 visualisation of the different stages of industrial production and where we find ourselves in 2023, staring over the
19 precipice of a new dawn of computing, cyber-physical systems, AI and new forms of industrial production.



Image Credit: “Christoph Roser at [AllAboutLean.com](https://www.allaboutlean.com/)”

20 Industry 1.0 refers to the first industrial revolution – a period from the mid-18th century to the end of the 19th
21 century typified by the emergence of mechanised manufacturing and industrial output.

22 Industry 2.0 was the era of mass production – the assembly line, the centralisation and monopolisation of
23 manufacturing and the end of specialist cottage industries, all powered by a new piece of world-changing tech –
24 electricity.

25 The third industrial revolution was what we now call the Digital Revolution – this incorporated the rise of the
26 computer, robotic manufacturing, email, the Internet, automation and the emergence of cloud computing and
27 software-led efficiencies, brought to life at the end of the 20th century.

28 The fourth industrial revolution will take what began in the third, with the adoption of computers and automation
29 and enhance it with smart and autonomous systems fueled by data and machine learning. Industry 4.0 is where
30 our physical and digital worlds combine. Although the future is uncertain, the groundwork is already in place for
31 a period when digital networks and online fiction will be the rule rather than the exception.

Retrieved and adapted from: <https://www.renaix.com/industry-4-0-the-fourth-industrial-revolution/>

Access on April 9th, 2024.

As questões de 1 a 8 referem-se ao **TEXTO 1**.

Questão 1. Dentre as opções abaixo, o título mais adequado para o texto (linha 01), considerando a temática central é

- a) What is the next step on the space science revolution?
- b) What are the consequences of Artificial Intelligence?
- c) What makes up the 5.0 Industry?
- d) How does Industry 4.0 differ from the previous generations?
- e) How is the industrial revolution related to climate crisis?

Questão 2. A ordem em que os exemplos abaixo, mencionados no texto, correspondem, respectivamente, a cada fase de evolução da produção industrial representada pela imagem é:

- a) mecanização / linha de montagem / automação / sistemas ciberfísicos
- b) linha de montagem / mecanização / automação / sistemas ciberfísicos
- c) mecanização / linha de montagem / sistemas ciberfísicos / automação
- d) linha de montagem / mecanização / sistemas ciberfísicos / automação
- e) linha de montagem / automação / mecanização / sistemas ciberfísicos

Questão 3. Considere as sentenças a seguir sobre a quarta revolução industrial:

- I- A Indústria 4.0 otimiza o que aconteceu na Indústria 3.0, alimentando-a com dados e sistemas inteligentes.
- II- A indústria 4.0 pouco impacta as mudanças macro da sociedade, apenas a evolução tecnológica.

De acordo com o texto,

- a) apenas a primeira afirmativa é falsa.
- b) ambas as afirmativas são verdadeiras.
- c) ambas as afirmativas são falsas.
- d) apenas a segunda afirmativa é falsa.
- e) ambas as afirmativas contêm informações não mencionadas no texto.

Questão 4. Na frase “**Those inventions** point to a change in how we live and perceive progress and typify each industrial revolution.” (linha 10 e 11), os vocábulos em negrito fazem referência

- a) à eletricidade e à produção em massa.
- b) a todas as opções acima.
- c) à manufatura mecanizada.
- d) ao computador e à automação.
- e) à Internet e à computação em nuvem.

Questão 5. Na frase “... the last few years have seen some of the most significant leaps in digitization in a generation” (linhas 03 e 04), compreende-se que a ação descrita

- a) foi iniciada e já está concluída.
- b) nunca foi iniciada.
- c) foi iniciada e permanece em curso.
- d) será realizada em um futuro próximo.
- e) será realizada em um futuro distante.

Questão 6. De modo a manter o sentido, o vocábulo em negrito na frase “But this ‘invention’, **amongst** many others, is...” (linha 05) não poderia ser substituído por

- a) surrounded by
- b) in the midst of
- c) apart from
- d) together with
- e) along with

Questão 7. Na frase “... is simply the most recent iteration within...” (linha 05), o modo do adjetivo em uso expressa ideia de

- a) igualdade
- b) inferioridade
- c) comparação
- d) obrigatoriedade
- e) superioridade

Questão 8. Sobre a expressão idiomática “... what on earth ...” (linha 15), considere as afirmativas a seguir:

- I- sugere certeza.
- II- expressa ênfase.
- III- revela surpresa.

Estão **corretas** as informações das alternativas

- a) I e II.
- b) II e III.
- c) I e III.
- d) II, apenas.
- e) III, apenas.

TEXTO 2

1

MEPs approve world's first comprehensive AI law

13 March 2024

By Shiona McCallum, Liv McMahon & Tom Singleton,

Technology reporters

2 **The European Parliament has approved the world's first comprehensive framework for constraining the**
 3 **risks of artificial intelligence (AI).** The sector has seen explosive growth - driving huge profits but also stoking
 4 fears about bias, privacy and even the future of humanity.

5 The AI Act works by classifying products according to risk and adjusting scrutiny accordingly. The law's creators
 6 said it would make the tech more "human-centric."

7 "The AI act is not the end of the journey but the starting point for new governance built around technology," MEP
 8 Dragos Tudorache added.

9 It also places the EU at the forefront of global attempts to address the dangers associated with AI. China already
 10 has introduced a patchwork of AI laws. In October 2023, US President Joe Biden announced an executive order
 11 requiring AI developers to share data with the government.

12 But the EU has now gone further: "The adoption of the AI Act marks the beginning of a new AI era and its
 13 importance cannot be overstated," said Enza Iannopolo, principal analyst at Forrester. "The EU AI Act is the
 14 world's first and only set of binding requirements to mitigate AI risks," she added. In November 2023, the
 15 UK hosted an AI safety summit but is not planning legislation along the lines of the AI Act.

16 How the AI Act will work

17 The main idea of the law is to regulate AI based on its capacity to cause harm to society. The higher the risk, the
 18 stricter the rules.

19 AI applications that pose a "clear risk to fundamental rights" will be banned, for example some of those that
 20 involve the processing of biometric data. AI systems considered "high-risk", such as those used in critical
 21 infrastructure, education, healthcare, law enforcement, border management or elections, will have to comply with
 22 strict requirements. Low-risk services, such as spam filters, will face the lightest regulation - the EU expects most
 23 services to fall into this category.

24 The Act also creates provisions to tackle risks posed by the systems underpinning generative AI tools and
 25 chatbots such as OpenAI's ChatGPT. These would require producers of some so-called general-purpose AI
 26 systems, that can be harnessed for a range of tasks, to be transparent about the material used to train their
 27 models and to comply with EU copyright law.

28 Mr. Tudorache told reporters ahead of the vote that copyright provisions had been one of the "heaviest lobbied"
 29 parts of the bill. OpenAI, Stability AI and graphics chip giant Nvidia are among a handful of AI firms facing lawsuits
 30 over their use of data to train generative models.

31 Some artists, writers and musicians have argued the process of "scraping" huge volumes of data, including
 32 potentially their own works, from virtually all corners of the internet violates copyright laws. The Act still has to
 33 pass several more steps before it formally becomes law.

34 Lawyer-linguists, whose job is to check and translate laws, will scour its text and the European Council -
 35 composed of representatives of EU member states - will also need to endorse it, though that is expected to be a
 36 formality. In the meantime, businesses will be working out how to comply with the legislation.

37 Kirsten Rulf - a former advisor to the German government, and now a partner at Boston Consulting Group - says
 38 more than 300 firms have been in touch with her company so far. "They want to know how to scale the tech, and
 39 get value from AI," she told the BBC. "Businesses need and want the legal certainty."

Retrieved and adapted from: <https://www.bbc.com/news/technology-68546450>

Access on April 3rd, 2024.

As questões de 9 a 16 referem-se ao **TEXTO 2**.

Questão 9. A palavra sublinhada no título pode ser substituída, sem prejuízo de sentido, por

- a) understanding.
- b) smart.
- c) logical.
- d) challenging.
- e) extensive.

Questão 10. No título, o significado de MEPs é, respectivamente

- a) Members of the European Parliament: politicians that represent an area of their country in the European Union.
- b) Metaphysical Energy Particles: subatomic entities that transcend the physical realm.
- c) Meticulous Electoral Planners: election specialists who focus on intricate details and complex strategies.
- d) Master Executive Powerhouses: charismatic leaders who exert influence over the masses.
- e) Mysterious Enigma Pioneers: enigmatic individuals who explore uncharted territories of knowledge.

Questão 11. As preocupações mencionadas no texto que têm sido associadas ao crescimento explosivo do setor de IA são:

- I- falta de privacidade
- II- viés preconceituoso
- III- lucratividade
- IV- futuro da humanidade
- V- ética duvidosa

Estão corretas as informações das alternativas

- a) I, II e III
- b) II, III e IV
- c) I, IV e V
- d) I, II e IV
- e) II, IV e V

Questão 12. O evento realizado em novembro de 2023, no Reino Unido, foi

- a) uma cúpula sobre o *AI Act*.
- b) um decreto executivo sobre compartilhamento de dados de IA.
- c) uma conferência sobre ética em IA.
- d) Uma reunião para aprovação de uma legislação semelhante ao *AI Act*.
- e) um simpósio sobre regulamentação de IA.

Questão 13. Sobre o *AI Act*, com base nas informações do texto, pode-se afirmar que a referida lei está

- a) aprovada na Comunidade Europeia.
- b) em tramitação na China.
- c) aprovada nos Estados Unidos.
- d) em tramitação na Comunidade Europeia.
- e) em elaboração no Reino Unido.

Questão 14. Na frase “The *AI Act* works by classifying products **according to** risk and adjusting scrutiny accordingly.” (linha 5), a função das palavras em negrito é

- a) indicar causa e efeito.
- b) expressar finalidade.
- c) mostrar obrigatoriedade.
- d) estabelecer uma comparação.
- e) indicar referência ou base para classificação.

Questão 15. A relação entre o risco e as regras, de acordo com a frase “The higher the risk, the stricter the rules.” (linhas 17 e 18), pode ser assim compreendida: “ À medida que o risco aumenta, as regras

- a) se tornam mais rigorosas.”
- b) se tornam mais flexíveis.”
- c) permanecem inalteradas.”
- d) se tornam mais contestáveis.”
- e) se tornam mais lenientes.”

Questão 16. A palavra “scour”, no context da passagem “Lawyer-linguists, whose job is to check and translate laws, will scour its text [...], though that is expected to be a formality.” (linhas 34 a 36), significa:

- a) cumprir.
- b) revisar.
- c) categorizar.
- d) compreender.
- e) redigir.