

## 18º PROCESSO DE SELEÇÃO DE CANDIDATOS AO CURSO DE MESTRADO EM QUÍMICA - PPGQUIM - 2022/2

### CHAVES DE RESPOSTA - TERCEIRA ETAPA

### AVALIAÇÃO DE CONHECIMENTOS GERAIS EM QUÍMICA

Leia o texto para responder as questões que seguem:

*"In any discussion about climate change, renewable energy usually tops the list of changes the world can implement to stave off the worst effects of rising temperatures. That's because renewable energy sources such as solar and wind don't emit carbon dioxide and other greenhouse gases that contribute to global warming.*

*Clean energy has far more to recommend it than just being "green". The growing sector creates jobs, makes electric grids more resilient, expands energy access in developing countries, and helps lower energy bills. All of those factors have contributed to a renewable energy renaissance in recent years, with wind and solar setting new records for electricity generation.*

*For the past 150 years or so, humans have relied heavily on coal, oil, and other fossil fuels to power everything from light bulbs to cars to factories. Fossil fuels are embedded in nearly everything we do, and as a result, the greenhouse gases released from the burning of those fuels have reached historically high levels.*

*As greenhouse gases trap heat in the atmosphere that would otherwise escape into space, average temperatures on the surface are rising. Global warming is one symptom of climate change, the term scientists now prefer to describe the complex shifts affecting our planet's weather and climate systems. Climate change encompasses not only rising average temperatures but also extreme weather events, shifting wildlife populations and habitats, rising seas, and a range of other impacts.*

*Of course, renewables—like any source of energy—have their own trade-offs and associated debates. One of them centers on the definition of renewable energy. Strictly speaking, renewable energy is just what you might think: perpetually available, or as the U.S. Energy Information Administration puts it, "virtually inexhaustible." But "renewable" doesn't necessarily mean sustainable, as opponents of corn-based ethanol or large hydropower dams often argue. It also doesn't encompass other low- or zero-emissions resources that have their own advocates, including energy efficiency and nuclear power."*

Fonte:

<https://www.nationalgeographic.com/environment/article/renewable-energy>

(acesso em 09/06/2022)

1. **This passage is mostly about:**

- (a) Greenhouse gases
- (b) Fossil fuels
- (c) Renewable energy
- (d) Global warming

2. **According to the text, the use of renewable energies figures as one possible change in the world to**

- (a) increase the frequency of extreme weather events
- (b) avoid the worst effects of rising temperatures
- (c) rise the sea level
- (d) increase the greenhouse gases emission

3. **A great advantage of the renewable energy sources such as solar and wind is that they don't emit greenhouse gases, such as:**

- (a) carbon dioxide
- (b) hydrogen gas
- (c) nitrogen gas
- (d) oxygen gas

4. **In the sentence "...renewable energy usually tops the list of changes the world can implement to stave off the worst effects of rising temperatures"**

**The word "usually" has the following meaning, except:**

- (a) hardly
- (b) frequently
- (c) normally
- (d) commonly

5. **Read the following sentence "Fossil fuels are embedded in nearly everything we do, and as a result, the greenhouse gases released ..."**

**The expression "as a result" can be replaced with:**

- (a) respectively
- (b) consequently
- (c) rarely
- (d) improperly

6. In the sentence “One of them centers on the definition of renewable energy”, in the last paragraph, the word “them” refers to:
- (a) renewables
  - (b) debates
  - (c) centers
  - (d) trade-offs
7. According to the text, the following factors have contributed to a renewable energy renaissance in the last years, except:
- (a) job creation
  - (b) cheapest energy bills
  - (c) expansion of the access to energy
  - (d) dependence on the nature phenomena
8. According to the text, it is correct, except:
- (a) wind and solar energies have set new records for electricity generation
  - (b) Nuclear energy is renewable
  - (c) A renewable energy source is not necessarily sustainable
  - (d) Global warming is one symptom of climate change