

TRIBUNAL CALIFICADOR RESOLUCIÓN DE 23 DE DICIEMBRE DE 2022 BOE 29 DE DICIEMBRE DE 2022

Escala de Titulados de Escuelas Técnicas de Grado Medio de Organismos Autónomos del Ministerio de Medio Ambiente

TERCER EJERCICIO PROMOCIÓN INTERNA

PARTE A

TECHNOLOGY AND THE ENVIRONMENT

Technology and the environment share a dynamic interaction that significantly shapes our world. The characteristic relationship between these two domains is evident in both their positive contributions and the challenges they present. While technology has propelled pioneered advancements, revolutionizing industries and enhancing lifestyles, it has also significantly impacted the environment, leading to a complex web of consequences.

The beneficial impact of technology on the environment is unmistakable. Innovations in renewable energy, such as solar, wind, and hydroelectric power, offer promising alternatives to traditional fossil fuels, reducing greenhouse gas emissions and lessening our reliance on finite resources. These advancements have opened avenues for a cleaner and more sustainable future, striving to address the challenges of climate change.

Moreover, technology has played a pivotal role in waste management. Improved recycling methods and waste reduction technologies contribute to the realization of a circular economy, minimizing resource strain and waste generation. From innovative sorting processes to material recovery systems, technology has redefined how we handle and repurpose waste, thereby reducing the burden on the environment.

However, the rapid pace of technological evolution has inadvertently catalysed environmental challenges. Industrialization, propelled by technological advancements, has led to increased pollution, deforestation, and habitat destruction. The manufacturing, consumption, and disposal of electronic devices have given rise to a pervasive issue —e-waste, which poses a significant environmental threat due to the toxic materials it contains. Furthermore, the escalating energy demands of data centres and the substantial carbon footprint of internet usage have amplified concerns regarding the environmental consequences of the digital era.

Striking a balance between technological progress and environmental preservation is crucial. Fortunately, the same technological innovations that contributed to these challenges can be harnessed for environmental conservation. Artificial intelligence, big data analytics, and the Internet of Things (IoT) offer avenues for precise environmental



TRIBUNAL CALIFICADOR RESOLUCIÓN DE 23 DE DICIEMBRE DE 2022 BOE 29 DE DICIEMBRE DE 2022

Escala de Titulados de Escuelas Técnicas de Grado Medio de Organismos Autónomos del Ministerio de Medio Ambiente

monitoring and management. Smart sensors can track air and water quality, enabling rapid responses to pollution incidents. Additionally, Artificial Intelligence algorithms can optimize energy consumption in various sectors, thereby reducing waste and emissions.

The tech industry itself is progressively gravitating towards sustainability. Companies are embracing eco-friendly practices, designing products with recyclability in mind, and investing in renewable energy sources to power their operations. Initiatives like carbon offset programs and reforestation efforts are becoming integral components of corporate social responsibility, reflecting a collective commitment to environmental management.

Individuals also play a pivotal role in this narrative. Technology has empowered people to voice their concerns and promote environmental conservation through social media, educational platforms, and online campaigns. Apps and digital tools facilitate the sharing of eco-friendly practices, advocating for sustainable living, and nurturing a sense of collective responsibility towards the environment.

The future trajectory of technology and the environment is interwoven, and the challenge ahead lies in harnessing the potential of technology to combat environmental issues while mitigating its adverse impacts. Achieving a delicate balance between innovation and environmental stewardship necessitates a collective effort from governments, businesses, and individuals. This delicate equilibrium will pave the way for a future where technology not only advances societies but also coexists harmoniously with and conserves the natural world. This integration will herald an era where technological progress and environmental sustainability are complementary forces shaping a more prosperous and healthier world for all.



TRIBUNAL CALIFICADOR RESOLUCIÓN DE 23 DE DICIEMBRE DE 2022 BOE 29 DE DICIEMBRE DE 2022

Escala de Titulados de Escuelas Técnicas de Grado Medio de Organismos Autónomos del Ministerio de Medio Ambiente

- 1. What sort of relation is there between technology and the environment?
 - A. It has focused on pioneer environmental advances.
 - B. It has revolutionized urban lifestyles.
 - C. It has complex interconnected consequence.
 - D. It has simply contributed positively to sustainable development.
- 2. How do innovations in renewable energy sources impact fossil fuel reliance?
 - A. Increase reliance on fossil fuels.
 - B. Decrease reliance on fossil fuels.
 - C. Have no effect on fossil fuel usage.
 - D. Disrupt environmental conservation efforts.
- 3. How has technology contributed positively to waste management?
 - A. By increasing waste generation.
 - B. By promoting a linear economy.
 - C. By implementing better recycling methods.
 - D. By encouraging resource depletion.
- 4. What is the primary benefit of innovations in renewable energy sources?
 - A. Reducing water pollution.
 - B. Minimizing resource strain.
 - C. Increasing greenhouse gas emissions.
 - D. Enhancing reliance on fossil fuels.
- 5. In what way does technology impact waste management positively?
 - A. By promoting a linear economy.
 - B. By increasing resource strain.
 - C. By implementing improved recycling methods.
 - D. By encouraging waste generation.
- 6. What are the adverse effects of industrialization accelerated by technology?
 - A. Reduced pollution levels.
 - B. Decreased deforestation.
 - C. Increased habitat destruction.
 - D. Advancement of ecosystems.



TRIBUNAL CALIFICADOR RESOLUCIÓN DE 23 DE DICIEMBRE DE 2022 BOE 29 DE DICIEMBRE DE 2022

Escala de Titulados de Escuelas Técnicas de Grado Medio de Organismos Autónomos del Ministerio de Medio Ambiente

7. Which of the following is a significant environmental concern related to electronic devices?

- A. Reduction of toxic materials.
- B. Positive impact on biodiversity.
- C. Generation of e-waste.
- D. Promotion of sustainability.

8. What significant challenges have arisen due to e-waste?

- A. Decreased environmental threats.
- B. Increased resource sustainability.
- C. The presence of toxic materials and environmental threats.
- D. Improved recycling methods.
- 9. How do data centres and internet usage impact the environment?
 - A. By reducing the carbon footprint.
 - B. By conserving energy resources.
 - C. By decreasing environmental concerns.
 - D. By contributing to a substantial carbon footprint.

10. How can artificial intelligence and Internet of Things (IoT) help in environmental management?

- A. By increasing pollution incidents.
- B. By enabling imprecise environmental monitoring.
- C. By optimizing energy consumption and aiding precise monitoring.
- D. By promoting excessive waste production.
- 11. How do smart sensors contribute to environmental monitoring?
 - A. By tracking air and water quality.
 - B. By promoting pollution incidents.
 - C. By reducing energy efficiency.
 - D. By hindering waste reduction efforts.



TRIBUNAL CALIFICADOR RESOLUCIÓN DE 23 DE DICIEMBRE DE 2022 BOE 29 DE DICIEMBRE DE 2022

Escala de Titulados de Escuelas Técnicas de Grado Medio de Organismos Autónomos del Ministerio de Medio Ambiente

- 12. How do AI algorithms contribute to energy consumption?
 - A. By increasing waste and emissions.
 - B. By decreasing waste and emissions.
 - C. By promoting energy inefficiency.
 - D. By causing environmental harm.
- 13. What measures are tech companies taking towards sustainability?
 - A. Embracing eco-friendly practices and investing in renewable energy.
 - B. Fostering e-waste without recycling.
 - C. Disregarding corporate responsibility.
 - D. Ignoring environmental initiatives.
- 14. What is the key focus of technology companies in terms of sustainability?
 - A. Disregarding environmental impacts.
 - B. Embracing eco-friendly practices and investing in renewable energy.
 - C. Contributing to increased waste generation.
 - D. Reducing corporate social responsibility initiatives.
- 15. What is the ultimate aim of the tech industry's shift towards sustainability?
 - A. To disregard environmental conservation efforts.
 - B. To neglect eco-friendly practices.
 - C. To foster corporate responsibility.
 - D. To balance innovation with environmental preservation.
- 16. What role do individuals play in advocating for environmental conservation?
 - A. A passive role with minimal impact.
 - B. A negligible role in promoting eco-friendly practices.
 - C. An active role using social media and online campaigns.
 - D. No role in collective responsibility efforts.

17. How does technology empower individuals in the context of environmental conservation?

- A. By reducing social media impact.
- B. By limiting awareness campaigns.
- C. By using apps to encourage sustainable living.
- D. By hindering collective responsibility efforts.



TRIBUNAL CALIFICADOR RESOLUCIÓN DE 23 DE DICIEMBRE DE 2022 BOE 29 DE DICIEMBRE DE 2022

Escala de Titulados de Escuelas Técnicas de Grado Medio de Organismos Autónomos del Ministerio de Medio Ambiente

- 18. What is the core challenge in balancing technology and environmental management?
 - A. Increasing waste generation.
 - B. Reducing reliance on renewable energy.
 - C. Achieving a balance between innovation and environmental preservation.
 - D. Limiting corporate responsibility initiatives.

19. What future is envisioned where technology and the environment coexist harmoniously?

- A. A future without technological advancements.
- B. A future without environmental concerns.
- C. A future where technology advances societies while preserving the natural world.
- D. A future with increased pollution and habitat destruction.
- 20. What is the potential future when technology and the environment strike a balance?
 - A. A future where technology hinders environmental conservation.
 - B. A future where technology advances societies while coexisting harmoniously with the environment.
 - C. A future without technological advancements.
 - D. A future with increased reliance on fossil fuels.