WRITTEN WORK ACTIVITY IN SCIENCE, TECHNOLOGY AND SOCIETY ABOUT CLIMATE CHANGE
1ST SEMESTER A.Y. 2024-2025

General Instructions: Read and understand each question designed to help you reflect on important ideas of the chapters we have discussed. Choose the best answer.

1-2. A city experiences a rise in respiratory illnesses due to increased air pollution. This scenario demonstrates the connection between:

A. Environment and health only.
B. Society and environment only.
C. Society, environment, and health.
D. None of the above.

3-4. Deforestation in the Amazon rainforest disrupts the global water cycle. This is an example of how:

A. Climate change impacts the environment.
B. Environmental changes impact society.
C. Society's actions impact health.
D. Health concerns drive environmental changes.

5-6. Rising sea levels threaten coastal communities, forcing relocations and economic hardship. This situation highlights the:

A. Economic impact of climate change only.
B. Geopolitical impact of climate change only.
C. Interconnectedness of all three objectives.
D. Meteorological impact of climate change only.

7-8. A government implements stricter air quality regulations to protect public health. This action reflects an understanding of the link between:

A. Society and the environment.
B. Environment and the economy.
C. Economy and health.
D. Health and geopolitics.

9-10. Developing countries with limited resources often face the brunt of climate change impacts. This situation raises concerns about:

A. Economic disparity only.
B. Geopolitical instability only.
C. Both economic disparity and geopolitical instability.
D. Neither economic disparity nor geopolitical instability.

11-12. The primary contributor to global warming is the increase in atmospheric:

A. water vapor.
B. oxygen.
C. carbon dioxide.
D. nitrogen.

13-14. Deforestation contributes to climate change because trees:

A. Release harmful toxins into the air.
B. Absorb and store carbon dioxide.
C. Block sunlight from reaching the Earth's surface.
D. Deplete the ozone layer.

15-16. The burning of fossil fuels like coal and oil releases greenhouse gases, which:

A. Decrease Earth's overall temperature.
B. Trap heat in the atmosphere.
C. Have no significant impact on climate.
D. Create holes in the ozone layer.

17-18. Industrial agriculture practices, such as intensive use of fertilizers, contribute to climate change by releasing:

A. Methane.
B. Carbon monoxide.
C. Sulfur dioxide.
D. Chlorofluorocarbons (CFCs).

19-20. Which of the following is NOT a significant human activity contributing to climate change?

A. Deforestation
B. Increased use of renewable energy sources
C. Reliance on fossil fuels
D. Industrial agriculture practices

21-22. Rising sea levels due to climate change threaten coastal communities by:

A. Increasing tourism opportunities.
B. Inundating low-lying areas.
C. Creating more fertile land for agriculture.
D. Reducing the risk of coastal erosion.

23-24. More extreme weather events, like heat waves and droughts, are expected consequences of climate change. This can negatively impact:

A. Food security only.
B. Water availability only.
C. Energy production only.
D. All of the above.

25-26. Changes in global climate patterns can disrupt the migration patterns of animals, impacting:

A. Biodiversity only.
B. The tourism industry only.
C. Public health only.
D. None of the above.

27-28. Melting glaciers and polar ice caps contribute to rising sea levels and also disrupt:

A. Air travel routes.
B. Ocean currents.
C. Communication networks.
D. Land transportation infrastructure.

29-30. Climate change can lead to mass displacement of people due to rising sea levels, extreme weather events, and resource scarcity. This raises concerns about:

A. Economic hardship only.
B. Geopolitical instability only.
C. Both economic hardship and geopolitical instability.
D. Neither economic hardship nor geopolitical instability.

31-32. A community garden project in a low-income neighborhood provides fresh, healthy food while promoting social interaction. This initiative exemplifies the:

A. Environmental benefits of economic development.
B. Societal benefits of environmental initiatives.
C. Economic benefits of improved health.
D. Health benefits of technological advancements.

33-34. Increased use of public transportation in a city can reduce air pollution and traffic congestion. This demonstrates the:

A. Positive impact of societal changes on the environment.
B. Negative impact of environmental degradation on society.
C. Economic benefits of improved health outcomes.
D. Health risks associated with technological advancements.

35-36. Bioremediation, the use of living organisms to clean up environmental pollutants, highlights the potential for:

A. Technological solutions to environmental problems.
B. Economic benefits of environmental regulations.
C. Geopolitical implications of climate change.
D. Health risks associated with societal changes.

37-38. Stricter regulations on industrial waste disposal may increase production costs for companies. However, these regulations can also lead to a cleaner environment. This scenario highlights the:

A. Trade-off between economic growth and environmental protection.
B. Health benefits associated with economic development.
C. Geopolitical implications of resource scarcity.
D. Societal costs of technological advancements.

39-40. Public health campaigns promoting healthy eating habits can contribute to reducing greenhouse gas emissions from the livestock industry. This exemplifies the:

A. Interconnectedness of societal choices, environment, and health.
B. Economic benefits of environmental regulations.
C. Geopolitical implications of climate change.
D. Health risks associated with technological advancements

41-42. Certain industrial processes, such as cement production, release large amounts of carbon dioxide into the atmosphere. This is an example of a:

A. Direct human cause of climate change.
B. Natural variation in the Earth's climate cycle.
C. Positive feedback loop accelerating climate change.
D. Technological solution for mitigating climate change.

43-44. Methane, a potent greenhouse gas, is released from various sources. Which of the following is NOT a significant source of methane emissions?

A. Decomposition in landfills
B. Rice cultivation
C. Natural gas leaks from pipelines
D. Livestock manure

45-46. Certain human activities contribute to deforestation, which in turn reduces the Earth's ability to absorb carbon dioxide. This is an example of a:

A. Direct human cause of climate change.
B. Natural variation in the Earth's climate cycle.
C. Positive feedback loop accelerating climate change.
D. Technological solution for mitigating climate change.

47-48. While the sun's activity can influence Earth's climate, the current rate of climate change is primarily driven by:

A. Natural variations in solar activity.
B. Increased human activities.
C. Volcanic eruptions and asteroid impacts.
D. Changes in Earth's orbit around the sun.

49-50. Ocean acidification, caused by increased absorption of carbon dioxide from the atmosphere, can harm marine life such as coral reefs. This is an example of the:

A. Economic impact of climate change.
B. Geopolitical impact of climate change.
C. Biological impact of climate change.
D. Meteorological impact of climate change