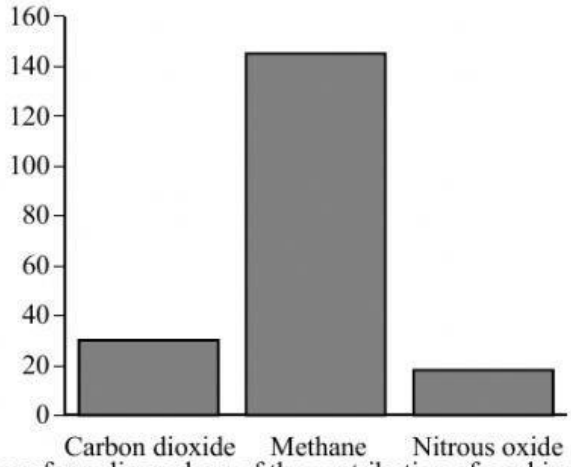
1. This question refers to the data below.

Percent increase from 1750 to 1992



(Source: IPCC. Summary for policymakers of the contribution of working group I to the IPCC second assessment report, 1995. Intergovernmental Panel on Climate Change. In WWF *Data Bulletin on Climate Change*.)

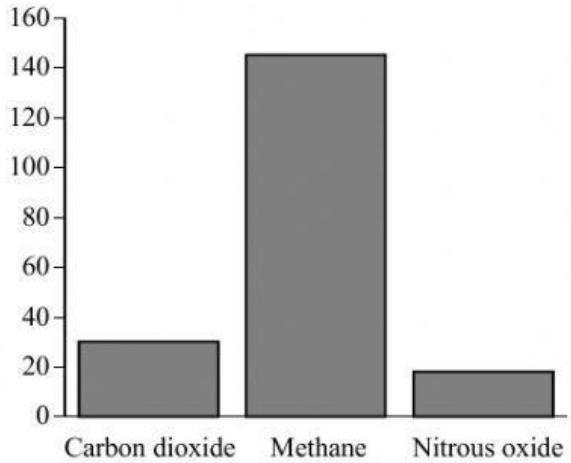
These gases cause the Greenhouse Effect because they are

A. more effective at absorbing long-wave radiation than other gases in the atmosphere.
B. more effective at absorbing short-wave radiation than other gases in the atmosphere.
C. produced by human activities.
D. not broken down in the atmosphere.

(Total 1 mark)

2. This question refers to the data below.

Percent increase from 1750 to 1992



Greenhouse gases not listed above are

I. sulfur dioxide.
II. CFCs.
III. low level (tropospheric) ozone.
IV. water vapour.

A. II and III
B. II, III and IV
C. I, II and III
D. I, II, III and IV

(Total 1 mark)

3. Which of the following environmental impacts is **not** associated with the burning of fossil fuels?

A. Thermal expansion of oceans
B. Damage to vegetation through toxic effects of ozone
C. Increase in pH of aquatic systems
D. Changing global weather patterns

(Total 1 mark)

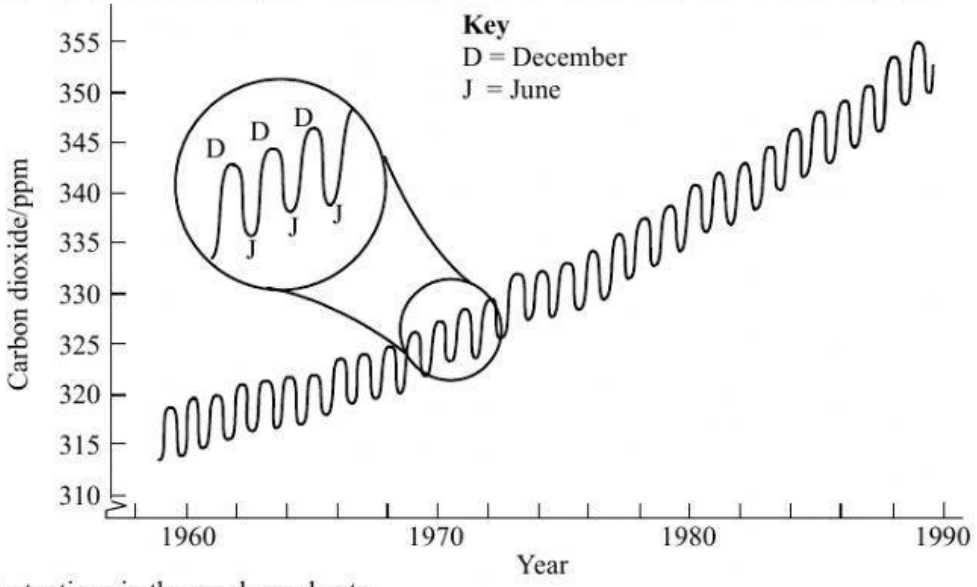
4. The major greenhouse gases are
A. nitrous oxide and chlorofluorocarbons.
B. water vapour, carbon dioxide, ozone and methane.
C. carbon dioxide, nitrogen and ozone.
D. ozone, water vapour and chlorine.

(Total 1 mark)

5. The rise in the earth's mean surface temperature between 1860 and the present is considered to be caused by
I. release of methane from wetlands.
II. deforestation.
III. burning of fossil fuels.
A. I, II and III
B. I and II only
C. II and III only
D. I and III only

(Total 1 mark)

6. The graph below shows changes in the concentration of carbon dioxide in the atmosphere.



The fluctuations in the graph are due to
A. biomass variations in phytoplankton.
B. increased use of fossil fuels in winter.
C. daily changes in the amount of photosynthesis occurring.
D. seasonal changes in the amount of photosynthesis occurring.

(Total 1 mark)

7. If part of the cost to the environment of fossil fuel use were added to the price of the fuel, the most likely effect would be that
A. global warming would increase.
B. use of renewable energy would decrease.

C. more fossil fuels would be produced.
D. consumption of fossil fuels would decrease.

(Total 1 mark)

8. Strategies that may help to reduce fossil fuel use and reduce global warming are

I. improving the energy efficiency of motor vehicles.
II. increasing the proportion of energy obtained from renewable sources.
III. switching to unleaded petrol (gasoline).

A. I and II only
B. II and III only
C. I and III only
D. I, II and III

(Total 1 mark)

9. Which of the following greenhouse gases are produced only by human activities?

A. Methane and chlorofluorocarbons (CFCs)
B. Carbon dioxide and water vapour
C. CFCs
D. Methane and water vapour

(Total 1 mark)

10. Methane is produced by

I. bacterial activity.
II. decomposition in landfill sites.
III. digestive systems of cattle.

A. I and II only
B. I and III only
C. II and III only
D. I, II and III

(Total 1 mark)

11. Which of the following possible impacts of global warming would be most likely to slow further increases in mean global temperatures?

A. Increased melting in the tundra leading to release of methane
B. Increased evaporation leading to greater snowfall in the polar regions
C. Climate change leading to reduction in gross primary productivity
D. Thermal expansion of the oceans leading to increase in aquatic habitats

(Total 1 mark)

12. If a tax were to be placed on fossil fuels proportional to the quantity of carbon dioxide released into the atmosphere when they were burnt, which would be the most likely effect?

A. Global warming would increase
B. Generation of nuclear power would decrease
C. The occurrence of smog in cities would increase
D. Consumption of fossil fuels would decrease

(Total 1 mark)

13. Which of these human activities both increases global warming and depletes the ozone layer?

A. Emission of carbon dioxide from vehicle exhausts
B. Emission of sulfur dioxide from power stations
C. Leakage of methane from gas pipelines
D. Release of CFCs from old refrigerators

(Total 1 mark)

14. As a result of global warming, there could be increased

I. snowfall at the poles.
II. melting of polar ice caps.
III. photosynthesis.

Which could produce positive feedback in the Earth's climate system?

A. I, II and III
B. I and III only
C. II only
D. III only

(Total 1 mark)

15. What might be a consequence of a significant decrease in the amount of the CO_2 in the atmosphere?

A. The Earth becoming warmer
B. A decrease in CFC levels in the atmosphere
C. A rise in sea levels
D. The Earth becoming cooler

(Total 1 mark)

16. Which are the three major greenhouse gases?

A. water, carbon dioxide and methane
B. ozone, water and carbon dioxide
C. carbon dioxide, ozone and nitrogen
D. water, methane and chlorine

(Total 1 mark)

17. Which pair of statements about the greenhouse effect is correct?

A.	It is caused by carbon dioxide and methane	It increases acid rain
B.	It occurs in the troposphere	It may cause a rise in sea levels
C.	It accelerates ozone depletion	It is caused by CFCs
D.	It blocks UV light	It occurs in the asthenosphere

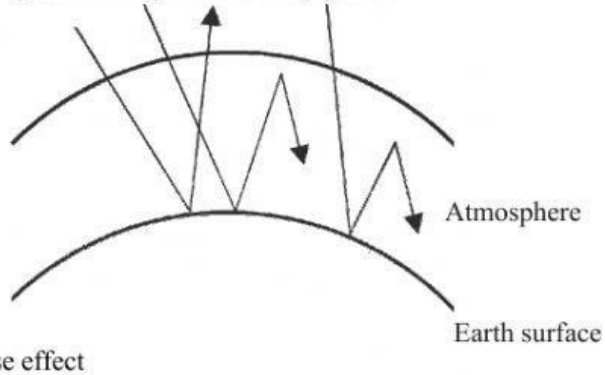
(Total 1 mark)

18. Which list contains only greenhouse gases?

A. Carbon dioxide, water and methane
B. Methane, CFCs and sulfur dioxide
C. Carbon dioxide, lead and methane
D. Nitrogen, water and CFCs

(Total 1 mark)

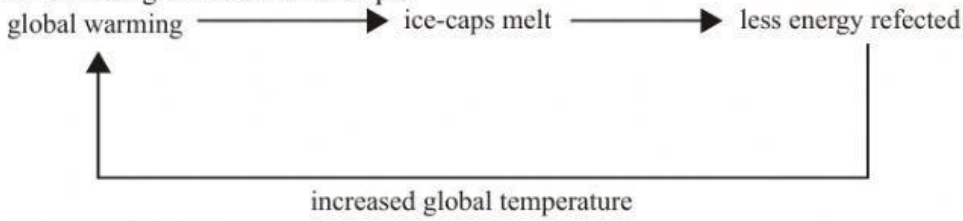
19. Which of the following does the figure below represent?



A. The greenhouse effect
B. Thermal inversion
C. Effects of the ozone layer on UV radiation
D. Redistribution of energy by the tricellular model

(Total 1 mark)

20. Of what is the diagram below an example?



A. Negative feedback
B. Positive feedback
C. Steady-state equilibrium
D. Static equilibrium 8806-6410

(Total 1 mark)

21. Which row contains correct statements about ozone depletion and global warming?

	Ozone depletion is …	**Greenhouse effect is …**
A.	a necessary condition for life on Earth.	caused by ultraviolet radiation.
B.	caused by ultraviolet radiation.	caused by carbon dioxide, methane and CFCs.
C.	a cause of damage to photosynthetic organisms.	a cause of increases in the rate of skin cancer.
D.	caused by CFCs.	a necessary condition for life on Earth.

(Total 1 mark)

22. Which of the following greenhouse gases are produced **only** by human activities?

A. Methane
B. Nitrogen oxides
C. Water vapour and carbon dioxide
D. Chlorofluorocarbons (CFCs)

(Total 1 mark)

23. Which statement about the greenhouse effect is correct?

A. The greenhouse effect is a normal and necessary condition for life on Earth.
B. The greenhouse effect is a recent environmental phenomenon caused by carbon dioxide and other emissions.
C. Nitrogen, carbon dioxide and CFCs are the main greenhouse gases.

D. The greenhouse effect is the natural trapping of heat in the stratosphere by water vapour and carbon dioxide gases.

(Total 1 mark)

24. Which of the following is the main focus of the Kyoto Protocol?
    A. Reduce emissions that cause acid deposition.
    B. Reduce emissions of ozone depleting substances.
    C. Reduce emissions that cause photochemical smog
    D. Reduce emissions that enhance the greenhouse effect.

25. What is the correct order of energy sources used from highest to lowest?

I. Solar
II. Natural gas
III. Hydroelectricity
IV. Oil
V. Wind
VI. Nuclear
VII. Coal

    A. VII, IV, III, II, I, VI, V
    B. IV, II, III, VII, VI, V, I
    C. IV, III, II, VI, VII, I, V
    D. IV, VII, II, III, VI, V, I

26. Which of the following are advantages to using fossil fuels?

I. Very efficient in terms of energy production.
II. Reliable energy source
III. Are renewable
IV. Safe to produce with little risk to humans
V. Produce relatively little pollution when used.
VI. Easy to transport

    A. I, II, III
    B. II, III, IV, VI
    C. II, III, IV, VI
    D. I, II, VI

27. Name the greenhouse gas emitted from fertilizers. Do not use the chemical symbols.
28. The intervention in the climate system of the Earth through strategies such as atmospheric carbon dioxide removal or regulation of solar radiation is otherwise called:
29. The term used to describe the mechanism introduced under the 4. Kyoto Protocol allowing the signatory countries to buy higher allowances for carbon dioxide emissions from other nations?
30. This organization is an initiative launched by the United Nations that aims to provide help for domestic projects focused on reducing greenhouse gases emissions caused by deforestation as well as implementing collaborative strategies internationally.
31. This organization is established by UNEP, is a scientific international body that assesses the extent of knowledge on the global climate change.
32. What is the name of an international and legally binding agreement that aimed to reduce the emissions of greenhouse gases and was adopted in 1997?
33. An example of technocentric approach use advanced technology to capture and store carbon dioxide from the atmosphere when it is released.
34. This is the Adapting strategy to change and addressing the damage to human societies caused by the global climate change
35. Increased evaporation rates leading to increased cloud formation that reflects incoming solar radiation is an example of a _____
36. What is the term used to describe a phenomenon of gradual reduction in the amount of insolation that reaches the Earth's surface as a result of increasing atmospheric pollution?
37. Increasing temperatures lead to higher rates of decomposition of dead matter, leading to a release of methane. This is an example of:

38. What is the difference between climate and weather? Climate is a term used to describe temperature and precipitation patterns over a _____ period of time while weather describes the atmospheric conditions in the _____ term.
39. . ……..energy is energy created in a way that cannot be exhausted - either because it harnesses the _____ of a natural process (such as _____ , wind or tidal energy) or uses a source which replenishes rapidly (e.g. fast growing _____ for burning)
40. The supply of useful _____ to a society for individual consumption and _____ is known as _____
41. Coal is the dirtiest _____ source as it releases large amounts of _____ and _____ dioxide - made from fossilised peat (marshy land with large amounts of plant matter) and forests
42. Which energy source is responsible for emitting radioactive waste? Nuclear
43. Which source of energy is formed when dead matter of living organisms decomposes in anoxic conditions and is subjected to pressure and high temperature over millions of years? Fossil fuels
44. the main energy source in Iceland? Geothermal
45. Mitigation strategies to reduce the causes of climate change may involve reducing _____ _____ emissions, or by using _____ _____ reduction (CDR) techniques. Limiting the amount of greenhouses gases in the atmosphere may help _____ the extent of anthropogenic global climate change, but this would not happen _____. If we somehow limit _____ to pre-1840s (pre _____ _____) levels, the effects of climate changed will still be observed for some time because _____ _____ will continue to have an effect for years to come.