

Atmosphere Interview Questions And Answers Guide.



Global Guideline.

<https://globalguideline.com/>



Atmosphere Job Interview Preparation Guide.

Question # 1

Where is ozone in atmosphere?

Answer:-

Ozone is found primarily in two regions of the atmosphere. About 10% of atmospheric ozone is in the troposphere, the region closest to Earth (from the surface to about 10-16 kilometers (6-10 miles)). The remaining ozone (about 90%) resides in the stratosphere between the top of the troposphere and about 50 kilometers (31 miles) altitude.

[Read More Answers.](#)

Question # 2

How is ozone formed in the atmosphere?

Answer:-

Ozone is formed throughout the atmosphere in multistep chemical processes that require sunlight. In the stratosphere, the process begins with an oxygen molecule being broken apart by ultraviolet radiation from the Sun. In the lower atmosphere (troposphere), ozone is formed in a different set of chemical reactions involving hydrocarbons and nitrogen-containing gases.

[Read More Answers.](#)

Question # 3

Why do we care about atmospheric ozone?

Answer:-

Ozone in the stratosphere absorbs some of the Sun's biologically harmful ultraviolet radiation. Because of this beneficial role, stratospheric ozone is considered good ozone. In contrast, excess ozone at Earth's surface that is formed from pollutants is considered bad ozone because it can be harmful to humans, plants and animals. The ozone that occurs naturally near the surface and in the lower atmosphere is also beneficial because ozone helps remove pollutants from the atmosphere.

[Read More Answers.](#)

Question # 4

Is total ozone uniform over the globe?

Answer:-

No, the total amount of ozone above the surface of Earth varies with location on time scales that range from daily to seasonal and longer. The variations are caused by stratospheric winds and the chemical production and destruction of ozone. Total ozone is generally lowest at the equator and highest near the poles because of the seasonal wind patterns in the stratosphere.

[Read More Answers.](#)

Question # 5

How is ozone measured in the atmosphere?

Answer:-

The amount of ozone in the atmosphere is measured by instruments on the ground and carried aloft on balloons, aircraft and satellites. Some measurements involve drawing air into an instrument that contains a system for detecting ozone. Other measurements are based on ozone's unique absorption of light in the atmosphere. In that case, sunlight or laser light is carefully measured after passing through a portion of the atmosphere containing ozone.

[Read More Answers.](#)

Question # 6

What are the principal steps in stratospheric ozone depletion caused by human activities?

Answer:-

The initial step in the depletion of stratospheric ozone by human activities is the emission, at Earth's surface, of ozone-depleting gases containing chlorine and bromine. Most of these gases accumulate in the lower atmosphere because they are nonreactive and do not dissolve readily in rain or snow. Eventually, these emitted source gases are transported to the stratosphere, where they are converted to more reactive gases containing chlorine and bromine. These more reactive gases then participate in reactions that destroy ozone. Finally, when air returns to the lower atmosphere, these reactive chlorine and bromine gases are removed from Earth's



atmosphere by rain and snow.

[Read More Answers.](#)

Question # 7

What emissions from human activities lead to ozone depletion?

Answer:-

Certain industrial processes and consumer products result in the emission of halogen source gases to the atmosphere. These gases bring chlorine and bromine to the stratosphere, which cause depletion of the ozone layer. For example, chlorofluorocarbons (CFCs), once used in almost all refrigeration and air conditioning systems, eventually reach the stratosphere, where they are broken apart to release ozone-depleting chlorine atoms. Other examples of human-produced ozone-depleting gases are the halons, which are used in fire extinguishers and contain ozone-depleting bromine atoms. The production and consumption of all principal halogen source gases by human activities are regulated worldwide under the Montreal Protocol.

[Read More Answers.](#)

Question # 8

What reactive halogen gases that destroy stratospheric ozone in atmosphere?

Answer:-

Emissions from human activities and natural processes include large sources of chlorine- and bromine-containing gases that eventually reach the stratosphere. When exposed to ultraviolet radiation from the Sun, these halogen source gases are converted to more reactive gases also containing chlorine and bromine. Important examples of the reactive gases that destroy stratospheric ozone are chlorine monoxide (ClO) and bromine monoxide (BrO). These reactive gases participate in "catalytic" reaction cycles that efficiently destroy ozone. Volcanoes can emit some chlorine-containing gases but these gases are ones that readily dissolve in rainwater and ice and are usually washed out of the atmosphere before they can reach the stratosphere.

[Read More Answers.](#)

Question # 9

Which chlorine and bromine reactions is destroy stratospheric ozone in atmosphere?

Answer:-

Reactive gases containing chlorine and bromine destroy stratospheric ozone in "catalytic" cycles made up of two or more separate reactions. As a result, a single chlorine or bromine atom can destroy many hundreds of ozone molecules before it reacts with another gas, breaking the cycle. In this way, a small amount of reactive chlorine or bromine has a large impact on the ozone layer. Certain ozone destruction reactions become most effective in polar regions because the reactive gas chlorine monoxide reaches very high levels there in the late winter/early spring season.

[Read More Answers.](#)

Question # 10

Why ozone hole has appeared over Antarctica when ozone-depleting gases are present throughout the stratosphere?

Answer:-

Ozone-depleting gases are present throughout the stratospheric ozone layer because they are transported great distances by atmospheric air motions. The severe depletion of the Antarctic ozone layer known as the ozone hole occurs because of the special weather conditions that exist there and nowhere else on the globe. The very low temperatures of the Antarctic stratosphere create ice clouds called polar stratospheric clouds (PSCs). Special reactions that occur on PSCs and the relative isolation of polar stratospheric air allow chlorine and bromine reactions to produce the ozone hole in Antarctic springtime.

[Read More Answers.](#)

Question # 11

Do you know how severe depletion of the Antarctic ozone layer in atmosphere?

Answer:-

Severe depletion of the Antarctic ozone layer was first observed in the early 1980s. Antarctic ozone depletion is seasonal, occurring primarily in late winter and early spring (August-November). Peak depletion occurs in early October when ozone is often completely destroyed over a range of altitudes, reducing overhead total ozone by as much as two-thirds at some locations. This severe depletion creates the "ozone hole" in images of Antarctic total ozone made from space. In most years the maximum area of the ozone hole far exceeds the size of the Antarctic continent.

[Read More Answers.](#)

Question # 12

Tell me is there any depletion of the Arctic ozone layer in atmosphere?

Answer:-

Yes, significant depletion of the Arctic ozone layer now occurs in some years in the late winter/early spring period (January-April). However, the maximum depletion is less severe than that observed in the Antarctic and is more variable from year to year. A large and recurrent ozone hole, as found in the Antarctic stratosphere, does not occur in the Arctic.

[Read More Answers.](#)

Question # 13

Do you know that how much large depletion of the global ozone layer is in atmosphere?

Answer:-

The ozone layer has been depleted gradually since 1980 and now is about an average of 4% lower over the globe. The average depletion exceeds the natural variability of the ozone layer. The ozone loss is very small near the equator and increases with latitude toward the poles. The larger polar depletion is primarily a result of the late winter/early spring ozone destruction that occurs there each year.

[Read More Answers.](#)



Question # 14

What changes in the Sun and volcanic eruptions are affecting the ozone layer in atmosphere?

Answer:-

Yes, factors such as changes in solar radiation, as well as the formation of stratospheric particles after volcanic eruptions, do influence the ozone layer. However, neither factor can explain the average decreases observed in global total ozone over the last two decades. If large volcanic eruptions occur in the coming decades, ozone depletion will increase for several years after the eruption.

[Read More Answers.](#)

Question # 15

What is ozone in atmosphere?

Answer:-

Ozone is a gas that is naturally present in our atmosphere. Each ozone molecule contains three atoms of oxygen.

[Read More Answers.](#)

Question # 16

What is atmosphere?

Answer:-

Atmosphere is the envelope of gases surrounding the earth or another planet.

[Read More Answers.](#)

Question # 17

What you know about the regulations on the production of ozone-depleting gases in atmosphere?

Answer:-

Yes, the production of ozone-depleting gases is regulated under a 1987 international agreement known as the Montreal Protocol on substances that deplete the ozone layer and its subsequent Amendments and Adjustments. The Protocol, now ratified by over 190 nations, establishes legally binding controls on the national production and consumption of ozone-depleting gases. Production and consumption of all principal halogen-containing gases by developed and developing nations will be significantly phased out before the middle of the 21st century.

[Read More Answers.](#)

Question # 18

Tell me were the Montreal protocol in reducing ozone-depleting gases in the atmosphere is been successful?

Answer:-

Yes, as a result of the Montreal Protocol, the total abundance of ozone-depleting gases in the atmosphere has begun to decrease in recent years. If the nations of the world continue to follow the provisions of the Montreal Protocol, the decrease will continue throughout the 21st century. Some individual gases, such as halons and hydrochlorofluorocarbons (HCFCs), are still increasing in the atmosphere but will begin to decrease in the next decades if compliance with the Protocol continues. Around midcentury, the effective abundance of ozone-depleting gases should fall to values that were present before the Antarctic "ozone hole" began to form in the early 1980s.

[Read More Answers.](#)

Question # 19

Tell me does the depletion of ozone layer increase ground-level ultraviolet radiation?

Answer:-

Yes, ultraviolet radiation at Earth's surface increases as the amount of overhead total ozone decreases, because ozone absorbs ultraviolet radiation from the Sun. Measurements by ground-based instruments and estimates made using satellite data have confirmed that surface ultraviolet radiation has increased in regions where ozone depletion is observed.

[Read More Answers.](#)

Question # 20

What is the principal cause of climate change in atmosphere?

Answer:-

No, ozone depletion itself is not the principal cause of climate change. However, because ozone absorbs solar radiation and is a greenhouse gas, ozone changes and climate change are linked in important ways. Stratospheric ozone depletion and increases in global tropospheric ozone that have occurred in recent decades both contribute to climate change. These contributions to climate change are significant but small compared with the total contribution from all other greenhouse gases. Ozone and climate change are indirectly linked because both ozone-depleting gases and substitute gases contribute to climate change.

[Read More Answers.](#)

Question # 21

Tell me how can recovery of the ozone layer be identified?

Answer:-

Scientists expect to identify the recovery of the ozone layer with detailed ozone measurements in the atmosphere and with global models of ozone amounts. Increases in global ozone and reductions in the extent and severity of the Antarctic "ozone hole" will be important factors in gauging ozone recovery. Natural variations in ozone amounts will limit how soon recovery can be detected with future ozone measurements.

[Read More Answers.](#)



Question # 22

Do you know when is the ozone layer expected to recover in atmosphere?

Answer:-

Substantial recovery of the ozone layer is expected near the middle of the 21st century, assuming global compliance with the Montreal Protocol. Recovery will occur as chlorine- and bromine-containing gases that cause ozone depletion decrease in the coming decades under the provisions of the Protocol. However, the influence of changes in climate and other atmospheric parameters could accelerate or delay ozone recovery, and volcanic eruptions in the next decades could temporarily reduce ozone amounts for several years.

[Read More Answers.](#)

Question # 23

Tell me why the temperature sinks with altitude in atmosphere?

Answer:-

The temperature sinks with altitude because of the adiabatic cooling of a lesser pressure aloft.

[Read More Answers.](#)

Question # 24

Do you know about an inversion?

Answer:-

When the air is warmer aloft than on the surface is called an inversion.

[Read More Answers.](#)

Question # 25

Tell me what is a convection?

Answer:-

When the air rises, either because warmer or because of the terrain is called a convection.

[Read More Answers.](#)

Question # 26

Can you tell me about the Westerlies?

Answer:-

Prevailing west wind on the south side of the polar front in the northern hemisphere. (north of the front, in the southern hemisphere).

[Read More Answers.](#)

Question # 27

Please tell me about hail?

Answer:-

Hail is rain that is taken upward by a very strong convection and it freezes before it falls back to the surface of the earth.

[Read More Answers.](#)

Question # 28

Tell me about the average atmospheric pressure at sea level?

Answer:-

1013 hPa or 29.9 Mg In.

[Read More Answers.](#)

Question # 29

Tell me is it possible that a thunderstorm happen with snow?

Answer:-

A thunderstorm can happen in any condition, snow and even fog but it happens mostly during the summer when the sun is high and warms the surface.

[Read More Answers.](#)

Question # 30

Define unstable air masses in atmosphere?

Answer:-

Air masses with a great difference of temperature between the surface and the troposphere.

[Read More Answers.](#)

Question # 31

Do you know about an occlusion front?

Answer:-



A cold front, being steeper, moves faster than a warm one and when they merge, they form what is called an occlusion front.

[Read More Answers.](#)

Question # 32

Tell me about a polar front?

Answer:-

The separation between polar cold air and temperature mild air is called a polar front.

[Read More Answers.](#)

Question # 33

Do you know during fall and winter why there more storms at mid-latitudes?

Answer:-

Because during fall and winter, the difference between tropical and polar air is much greater.

[Read More Answers.](#)

Question # 34

Tell me about the jet streams?

Answer:-

Jet streams are strong winds on the top of the troposphere that are caused by the sharp altitude change in the troposphere and the Coriolis force.

[Read More Answers.](#)

Question # 35

Define a cumulonimbus?

Answer:-

A large cumulus cloud formed from a strong convection of humid air. It causes rain and, sometimes, thunderstorms.

[Read More Answers.](#)

Question # 36

Tell me do you know about the dew point temperature?

Answer:-

The temperature at which a parcel of air can not contain more moisture without condensing. At that temperature, the relative humidity is 100 percent.

[Read More Answers.](#)

Question # 37

Can you tell me the difference between absolute and relative humidity?

Answer:-

The absolute humidity is the actual volume of water per volume of air. The relative humidity is how close to dew point a parcel of air is, for a given temperature.

[Read More Answers.](#)

Question # 38

List the types of clouds?

Answer:-

There are three types of clouds:

- * Cumuliform: Clouds formed by rising air in a convection.
- * Stratiform: Clouds formed in layers from an inversion.
- * Cirriform : Clouds made of ice crystals at high altitude.

[Read More Answers.](#)

Aerospace Most Popular Interview Topics.

- 1 : [Aviation Frequently Asked Interview Questions and Answers Guide.](#)
- 2 : [Aircraft Engineering Frequently Asked Interview Questions and Answers Guide.](#)
- 3 : [Aerospace Engineering Frequently Asked Interview Questions and Answers Guide.](#)
- 4 : [Air Traffic Controller Frequently Asked Interview Questions and Answers Guide.](#)
- 5 : [Air Hostess Frequently Asked Interview Questions and Answers Guide.](#)
- 6 : [Cruise Hostess Frequently Asked Interview Questions and Answers Guide.](#)
- 7 : [Meteorologist Frequently Asked Interview Questions and Answers Guide.](#)
- 8 : [Fire Fighter Airport Frequently Asked Interview Questions and Answers Guide.](#)
- 9 : [Cabin Crew Manager Frequently Asked Interview Questions and Answers Guide.](#)
- 10 : [Airline Pilot Frequently Asked Interview Questions and Answers Guide.](#)

About Global Guideline.

Global Guideline is a platform to develop your own skills with thousands of job interview questions and web tutorials for fresher's and experienced candidates. These interview questions and web tutorials will help you strengthen your technical skills, prepare for the interviews and quickly revise the concepts. Global Guideline invite you to unlock your potentials with thousands of [Interview Questions with Answers](#) and much more. Learn the most common technologies at Global Guideline. We will help you to explore the resources of the World Wide Web and develop your own skills from the basics to the advanced. Here you will learn anything quite easily and you will really enjoy while learning. Global Guideline will help you to become a professional and Expert, well prepared for the future.

* This PDF was generated from <https://GlobalGuideline.com> at **November 29th, 2023**

* If any answer or question is incorrect or inappropriate or you have correct answer or you found any problem in this document then don't hesitate feel free and [e-mail us](#) we will fix it.

You can follow us on FaceBook for latest Jobs, Updates and other interviews material.
www.facebook.com/InterviewQuestionsAnswers

Follow us on Twitter for latest Jobs and interview preparation guides
<https://twitter.com/InterviewGuide>

Best Of Luck.

Global Guideline Team
<https://GlobalGuideline.com>
Info@globalguideline.com