



**Maharashtra Mahavidyalaya
Nilanga, Dist. Latur**

NAAC Re-Accredited "B" Grade (CGPA - 2.67)

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म्हणुन पुरस्कार प्राप्त (रोख रु. २५,०००/- आणि सन्मानपत्र)

Affiliated to

**Swami Ramanand Teerth Marathwada
University, Nanded**

Tutorial Book

Academic Year 20 - 20

Name Kadam Shivkanya ye Vyankat

Class BSC.Ty

Subject Environment

Semester Vth Paper No. _____

Title of Tutorial

1) Impact of Aerosols on the environment

2) _____

Semester _____ Paper No. _____

Title of Tutorial

1) _____

2) _____

- 1) Impact of Aerosols of the environment
- 2) Aerosols affect climate
- 3) Atmospheric Aerosols
- 4) Aerosols Classification
- 5) Aerosol pollution
- 6) Aerosols : climate change wild card
- 7) Aerosols including the feature.
- 8) Mysterious aerosols.

Impact of Aerosols on the Environment.

The Impact of aerosols on the atmosphere is widely acknowledged as one of the most significant and uncertain aspects of climate change projection. He was awarded the Infosys prize in physical sciences in 2018 for his pioneering scientific work in the field of climate change.

His studies on black carbon (BC) aerosols have helped scientists understand the impact of these particles on climate, precipitation and human health across the Indian subcontinent.

The observed global warming trend is considerably less than expected from the increase in greenhouse gases and much of the difference can be explained by aerosols effect.

Aerosols effect climate.

Aerosols can influence the earth's climate in two ways.

When the sky is clear aerosols can reflect incoming sunlight back to outer space the direct effect this blocks part of the energy that would have reached the surface thus having a cool effect on the climate.

Absorbing aerosols black carbon in particular can trap solar energy within the atmosphere.

Atmospheric Aerosols

atmospheric aerosols are suspensions of submicroscopic and microscopic particles which originate from a variety of natural and anthropogenic sources.

Aerosols particles are emitted directly from various sources in the form of liquids or solids such as biomass burning in complete combustion of fossil fuels volcanic eruption which driven or traffic-related roads.

The most obvious example of an aerosol in the atmosphere are clouds which is mainly composed of concentrated water with a particle diameter about 0.01 mm .

Aerosol classification

Submicron aerosols are dominated by organic components and nitrates as well as sulfate ammonium and black carbon. The contribution of carbon, nitrogen and sulfur to the composition illustrates the role of aerosols in the biogeochemical cycle.

Compounds that exist as organic aerosols in the atmosphere are a mixture of aerosols and gaseous organic.

Organic aerosols are ubiquitous in the atmosphere and account for 20% to 90% of the total submicron aerosols mass.

Aerosol pollution

Aerosols are fine particles that float in the atmosphere many are natural but those haven't increased or decreased

much over the centuries but human caused aerosols emitted from smokestacks car exhausts wild fires and even clothes dryers - have increased rapidly largely in step with green house gas responsible for climate change.

Aerosols pollution kills 4.2 million people annually 200,000 in the U.S alone so curbing them rapidly make sense However there's a problem with that.