# School of Arts and Sciences

## ENV602 Air Quality

## PhD Physics

## Mid Semester Examination 2022-23 (Monsoon Semester)

**Total Marks = 30** **Time – 2 hours**

**Ahmedabad University Student ID:** _AU_____

**Date: 17-09-2022**

**Number of printed pages: 2**

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# Main question paper

## A. Short answer questions (8-10 lines) - attempt any 6 questions out of 8 in this section

**Total marks for this section: 12 (2 marks per question)**

i. Define air quality.

ii. What are short lived climate forcers?

iii. How haze, smog, fog, and smoke are related and yet different from each other?

iv. What are gas phase pollutants?

v. Is ozone hazardous to human health?

vi. How network measurement of air quality is beneficial over single point measurement?

vii. Is indoor air pollution more harmful than outdoor air pollution?

viii. How air quality can be measure by remote sensing techniques?

## B. Long answer questions (30-40 lines) - attempt any 3 questions out of 4 in this section

**Total marks for this section: 18 (6 marks per question)**

i. How air quality is quantified? Explain with figure.

ii. Explain any five pollution dispersion and transport mechanism in the atmosphere.

iii. How visibility and air quality are connected? Explain using concepts of visual range, smog, haze, and extinction.

iv. What are the adverse effects of various air pollutants on human health?