AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 9.10.2022
(BASED ON US-EPA AQI STANDARDS AND THE DAYALBAGH AQI COLOUR CODE)

Permissible Limits (24 Hour Mean): PM_{10} = 150; $PM_{2.5}$ = 35, all units are in $\mu g/m^3$ Sampling Duration = 24 hrs (9:00 AM to 9:00 AM)

Today: 8 -10-2022 to 9 -10-2022 from 9:00 a.m. to 9:00 a.m. **Yesterday:** 7 -10-2022 to 8 -10-2022 from 9:00 a.m. to 9:00 a.m.

LOCATION	DAYALBAGH (TIME WEIGHTED AVERAGE DATA)											SANJAY PLACE (ARITHMETIC MEAN DATA)										
	AQI				Meteorological Parameters							AQI				Meteorological Parameters						
	$PM_{2.5}$		PM_{10}		RH %	WS m/s	WD	T °C		SR W/m²	RF mm	$PM_{2.5}$		PM_{10}		RH %	WS m/s	WD	T °C		SR W/m²	RF mm
	Today	Yesterday	Today	Yesterday				Max	Min			Today	Yesterday	Today	Yesterday				Max	Min		
4 / 97	33	50	14	20	92	2.1	SSE	24.3	21.9	43	105	50	57	18	25	88	2.8	SSE	25.2	22.9	7.5*	65
3 / 34	38	50	13	18	92	2.1	SSE	24.3	21.9	43	105											
Science Faculty	50	70	14	25	92	2.1	SSE	24.3	21.9	43	105											

Views of AQI Research Group: Particulate matter concentrations have decreased at all the sites of Dayalbagh due to rainfall, improving the Air Quality Indices. The Air Quality index w.r.t. both $PM_{2.5}$ and PM_{10} is in the *Good* category at all locations of Dayalbagh.

At Sanjay Place also, the Air Quality Index has improved to the *Good* category w.r.t. to $PM_{2.5}$ and PM_{10}.
The SR value at Sanjay Place appears to be erroneous.

Good 0 - 50	Moderate 51 - 100	Unhealthy for Sensitive Groups 101 - 150	Unhealthy for All 151 - 200	Very Unhealthy for All 201 - 300	Hazardous for All 301 - 400	Hazardous for All 401 - 500

NOTE: 1 A continuing study conducted as part of **Dayalbagh Sigma Six Qualities and Values Model** implementation.

2 DEI is using United States Environmental Protection Agency (USEPA) methodology and online calculators to calculate AQI. For fair comparison with UPPCB Sanjay Place Weather Station readings, their $PM_{2.5}$ concentration readings are fed in USEPA online calculator for AQI calculation.

3 Formula for AQI calculation for a Pollutant –

$$I = \frac{I_{high} - I_{low}}{C_{high} - C_{low}} * (C - C_{low}) + I_{low}$$

where: I = Air Quality Index; C = Pollutant Concentration ($PM_{2.5}$); C_{low} = Concentration Breakpoint ≤C; C_{high} = Concentration Breakpoint ≥C; I_{low} = Index Break point corresponding to C_{low}; I_{high} = Index Breakpoint corresponding to C_{high}; *Multiplication Sign

Communicated by Dr. Anita Lakhani, Professor, Department of Chemistry, Faculty of Science, Dayalbagh Educational Institute, Dayalbagh, Agra.