AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 11.11.2022 (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: 10-11-2022 to 11-11-2022 from 9:00 a.m. to 9:00 a.m. Yesterday: 9-11-2022 to 10-11-2022 from 9:00 a.m. to 9:00 a.m.

г 0	DAYALBAGH (TIME WEIGHTED AVERAGE DATA)												SANJAY PLACE AND AVAS VIKAS (ARITHMETIC MEAN DATA)										
C	AQI				Meteorological Parameters						Г	С		A	QI	Meteorological Parameters							
A T	PM _{2.5}		PM ₁₀					T	T °C			T I	PM _{2.5}		PM ₁₀					T°	C		
O N	Today	Yesterday	Today	Yesterday	RH %	WS m/s	WD	Max	Min	SR W/m²	RF mm	O N	Today	Yesterday	Today	Yesterday	RH %	WS m/s	WD	Max	Min	SR W/m²	RF mm
4 / 97	162	95	85	49	73	0.5	SSW	31.3	17.8	124	0	Sanjay Place	183*	87*	134	66	70	0.2	WNW	30.3	19.6	133	0
3 / 34	156	87	78	46	73	0.5	SSW	31.3	17.8	124	0	Avas Vikas		142*	80	64	88		SE		18.0	75	0
Science Faculty	165	99	79	39	73	0.5	SSW	31.3	17.8	124	0		166*					0.6		30.9			

Views of AQI Research Group: Concentrations of Particulate matter have increased substantially. The increase might be due to secondary formation of aerosols by gas to particle conversion under high humidity conditions particularly during the night-time. The Air Quality Index w.r.t. PM_{2.5} has changed to the *Unhealthy for All* category, while w.r.t. PM₁₀ it has changed to the *Moderate* category at all sites of Dayalbagh.

*At Sanjay Place, concentrations of Particulate matter were not available after 8:00 pm yesterday while at Avas Vikas, the values were unavailable between 7 pm yesterday to 5 am today. The Air Quality Index has been computed from the available data. At Sanjay Place, the Air Quality Index w.r.t $PM_{2.5}$ has changed to Unhealthy for All category while w.r.t. PM_{10} it has changed to Unhealthy for Sensitive Groups category. At Avas Vikas, Bodla the Air Quality Index w.r.t $PM_{2.5}$ has changed to Unhealthy for All category but w.r.t. PM_{10} it remains in the Moderate category.

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 -

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

where: I = Air Quality Index; C = Pollutant Concentration (PM_{2.5}); C_{low} = Concentration Breakpoint $\leq C$; C_{high} = Concentration Breakpoint $\geq C$; C_{high} = Index Breakpoint corresponding to C_{low} ; C_{low} = Index Breakpoint corresponding to C_{high} ; *Multiplication Sign