## AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 3.10.2022 (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: 2-10-2022 to 3-10-2022 from 9:00 a.m. to 9:00 a.m. Yesterday: 1-10-2022 to 2-10-2022 from 9:00 a.m. to 9:00 a.m.

L O C A T	DAYALBAGH   (TIME WEIGHTED AVERAGE DATA)   AQI Meteorological Parameters											SANJAY PLACE (ARITHMETIC MEAN DATA)										
	PM2.5			PM <sub>10</sub>		Met			Paramo C			AQ PM <sub>2.5</sub>		21 PM10			Mete	eorolo	ogical Pa T C	Г	ters	
O N	Today	Yesterday	Today	Yesterday	RH %	WS m/s	W D	Max	Min	SR W/ m <sup>2</sup>	RF mm	Today	Yesterday	Today	Yesterday	RH %	WS m/s	W D	Max	Min	SR W/ m <sup>2</sup>	RF m m
4 / 97 3 / 34	70 95	144 155	45 40	69 71	59 59	2.5 2.5	S S	37.5 37.5	24.5 24.5	183 183	0											
Science Faculty	97	155	44	72	59	2.5	S	37.5	24.5	183	0	124	161	84	107	54	2.3	NNE	38.2	27.4	205	0
improving the	<b>ews of AQI Research Group:</b> A marked reduction in Particulate matter concentrations have occurred proving the Air Quality Index values to the <i>Moderate</i> category w.r.t. $PM_{2.5}$ and <i>Good</i> category w.r.t $PM_{10}$ Dayalbagh. This might be due to decrease in Relative Humidity, increase in Wind Speed and Change in							Perused <u>By Way of Information Only,</u> <u>Subject To</u> Legalise/Legalese/"Laws of the Land".														

At Sanjay Place also, the Air quality Index has improved to *Unhealthy for Sensitive Groups* w.r.t.  $PM_{2.5}$  from the *Unhealthy for All* category while, w.r.t.  $PM_{10}$  it has improved to the *Moderate* category from the *Unhealthy for Sensitive Groups* category.

Monday, 03-10-2022, 04:34 PM Received, Tuesday, 03-10-2022, 12:36 PM

Good	Moderate	Unhealthy for Sensitive Groups	Unhealthy for All	Very Unhealthy for All	Hazardous for All	Hazardous for All
0 - 50	51 - 100	101 - 150	151 - 200	201 - 300	301 - 400	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<sub>2.5</sub> concentration readings are fed in USEPA online calculator for AQI calculation.

3 Formula for AQI calculation for a Pollutant -

Wind Direction.

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

where: I = Air Quality Index; C = Pollutant Concentration (PM<sub>2.5</sub>);  $C_{low}$  = Concentration Breakpoint  $\leq$ C;  $C_{high}$  = Concentration Breakpoint  $\geq$ 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.