Radhasoami Dayal Ki Daya Radhasoami Sahai

AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 6.9.2022
(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 µg/m^3 Sampling Duration = 48 hrs (6:00 AM to 6:00 AM)

LOCATION	Date	Duration M = Daytime (6 am – 6 pm) E = Night time (6 pm – 6 am)	DAYALBAGH (TIME WEIGHTED AVERAGE DATA)									Date	Duration M = Daytime (6 am – 6 pm) E = Night time (6 pm – 6 am)	SANJAY PLACE (ARITHMETIC MEAN DATA)								
			AQI		Meteorological Parameters									AQI		Meteorological Parameters						
			$PM_{2.5}$	PM_{10}	RH %	WS m/s	WD	T °C Max	T °C Min	SR W/m^2	RF mm			$PM_{2.5}$	PM_{10}	RH %	WS m/s	WD	T °C Max	T °C Min	SR W/m^2	RF mm
4 / 97	Today	E	38	30	61	0.5	NE	35.4	28.0	2.7	0	Today	E	76	64	59	1.5	NNE	36.3	29.8	7.6	0
		M	25	19	48	1.4	N	40.4	27.9	382	0											
	Yesterday	E	42	22	57	1.2	NNE	35.8	28.6	5.3	0		M	57	55	51	2.5	E	38.7	30.7	449	0
		M	25	18	51	1.5	N	41.1	28.5	376	0											
3 / 34	Today	E	57	22	61	0.5	NE	35.4	28.0	2.7	0											
		M	50	17	48	1.4	N	40.4	27.9	382	0											
	Yesterday	E	63	21	57	1.2	NNE	35.8	28.6	5.3	0	Yesterday	E	70	72	64	2.3	E	35.3	29	7.4	0
		M	50	17	51	1.5	N	41.1	28.5	376	0											
Science Faculty	Today	E	72	26	61	0.5	NE	35.4	28.0	2.7	0											
		M	61	21	48	1.4	N	40.4	27.9	382	0											
	Yesterday	E	63	24	57	1.2	NNE	35.8	28.6	5.3	0		M	59	55	52	3.3	ENE	38.9	30.9	416	0
		M	57	21	51	1.5	N	41.1	28.5	376	0											

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

Views of AQI Research Group: During the daytime (M), the meteorological conditions (low Relative humidity, higher Wind Speed and higher Temperature) favour dispersal of pollutants hence, Air Quality Index is better than nighttime (E).

The Air Quality Index at the Dayalbagh sites is better than Sanjay Place.

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

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