School of Engineering

Department of Civil Engineering
Mid Term Examination

Exam Date: 26 Sep 2023
Time : 90 Minutes
Marks : 50

Sem VII - BCE01T5621 - Pollution Control and Monitoring

Your answer should be specific to the question asked
Draw neat labeled diagrams wherever necessary

1)	Discuss the similarities and differences between environmental and industrial noise.	K2 (2)
2)	Classify the different types of pollution caused by industrial, agricultural and municipal wastes.	K1 (3)
3)	Elaborate the details of landfill leachate	K2 (4)
4)	Discuss the Air Quality Index	K2 (6)
5)	A cyclone has an inlet width of 15 cm and the shortest length of 25 cm with diameter of 0.50 m, operates at five effective turns. The gas temperature is 345K and inlet velocity is 20m/s. Also, the average particle size is 10μm with particle density $1.2g/cm^3$. The viscosity of air at 345K is 0.0745 kg/m-h. Determine: (a) the cut diameter,dpc ; (b) The separation factor, S; (c) Pressure drop at 15 degree celsius and 1 atm (g = $1.2g/cm^3$). Is this a high efficiency cyclone?	K3 (6)
6)	Compare the effectiveness of different methods for collecting solid wastes.	K3 (9)
7)	A city has an air quality standard for particulate matter of $100\mu g/m^3$. A monitoring station located in the city center records a concentration of $150\mu g/m^3$. Determine the Air Quality Index (AQI) for particulate matter in the city?	K4 (8)
8)	Evaluate the effectiveness of remote sensing methods for air quality monitoring in urban areas.	K4 (12)

OR

	Evaluate the effectiveness of different methods for controlling environmental and industrial noise.	K4 (12)