

Indian Institute of Engineering Science and Technology, Shibpur  
B.Tech. 2<sup>nd</sup> Semester (Gr-V/VI/VII/VIII) Mid-Semester Examination, June 2021  
**CE1201: Ecology and Environment**

**Full Marks: 30**

**Time: 45 Minutes**

Upload First Half and Second Half answer scripts in two separate Files

**FIRST HALF**

**Answer any two from the following**

1. a) What is PM<sub>2.5</sub> and PM<sub>10</sub>?  
b) What is Good Ozone and Bad Ozone?  
c) What is Global Warming, and what is its environmental impact?  
d) What is secondary air pollutant? Give example.  
(2+3+3+2)=10
  
2. a) What is Solid Waste?  
b) Explain Reduce, Reuse and Recycle.  
c) With schematic diagram explain the process of Solid Waste Management.  
d) What are E-waste and Biomedical waste?  
(2+3+3+2)=10
  
3. a) What is Health Risk Assessment?  
b) Explain Dose-Response curve, NOAEL and LOAEL.  
c) What is the Target Hazard Quotient (THQ)?  
d) What is LD<sub>50</sub> (Lethal Dose 50%)  
e) What is exposure pathways?  
(2+3+2+1+2)=10

**SECOND HALF**

**Answer any one from the following**

4. (a) Define TON, Hazen and JTU.  
(b) Classify physical water quality parameters and describe environmental significance of color and turbidity.  
(3+7)=10
  
5. (a) A water sample has total alkalinity 600 mg/L as CaCO<sub>3</sub> and Phenolphthalein alkalinity 200 mg/L as CaCO<sub>3</sub>. Find the alkalinity species present and their concentrations.  
(b) What do you mean by pH and alkalinity?  
(c) Describe environmental significance of alkalinity  
(2+2+6)=10