



**PRESIDENCY UNIVERSITY  
BENGALURU**

**SCHOOL OF ENGINEERING  
END TERM EXAMINATION - JAN 2023**

**Semester :** Semester V - 2020

**Course Code :** CIV2027

**Course Name :** Sem V - CIV2027 - Environmental Pollution and Control

**Program :** B.Tech. Civil Engineering

**Date :** 18-JAN-2023

**Time :** 9.30AM - 12.30PM

**Max Marks :** 100

**Weightage :** 50%

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**Instructions:**

- (i) Read all questions carefully and answer accordingly.
  - (ii) Question paper consists of 3 parts.
  - (iii) Scientific and non-programmable calculator are permitted.
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**PART A**

**ANSWER ALL THE SIX QUESTIONS**

**6 X 5 = 30M**

1. Enlist any five preventive and clean up solutions for ground water pollution.  
(CO1) [Knowledge]
2. Water pollution causes several effects on terrestrial and aquatic ecosystem. List any five major effects of water pollution.  
(CO2) [Knowledge]
3. Differentiate radiation and subsidence inversion?  
(CO2) [Knowledge]
4. Define carbon credit? Differentiate VER and CER.  
(CO2) [Knowledge]
5. Define global warming? Explain any five causes of climate change  
(CO2) [Knowledge]
6. Write any four sources of noise pollution.  
(CO3) [Knowledge]

## PART B

### ANSWER ALL THE FOUR QUESTIONS

4 X 10 = 40M

7. Plume refers to the path and extent in the atmosphere of the gaseous effluents released from a source usually a stack. The atmospheric conditions play a major role in dispersion of air pollutants. Identify the plume types for unstable, and stable atmospheric conditions and discuss the same with the figures.  
(CO2) [Comprehension]
8. Air pollution is the contamination of air due to the presence of substances such as gases, particulates, and biological molecules in the atmosphere that are harmful to the health of humans and other living beings, or cause damage to the climate or to materials. Discuss any ten control measures for vehicular and industrial air pollution.  
(CO2) [Comprehension]
9. Air pollution is contamination of the indoor or outdoor environment by any chemical, physical or biological agent that modifies the natural characteristics of the atmosphere. Identify the natural and manmade sources of air pollution and enlist the particulate and gaseous pollutants causes air pollution.  
(CO2) [Comprehension]
10. On a mission to save the world's soils from extinction, the Save Soil campaign reached Bonn on 13 April 2022. The 100-day journey led by Sadhguru, Isha foundation, India will cover 30,000 km across 25 nations to call on the policymakers and the public to make soil regeneration a priority. Suggest any ten physico-chemical, thermal and biological remedial technologies to curb soil pollution and explain any one of it.  
(CO3) [Comprehension]

## PART C

### ANSWER ALL THE TWO QUESTIONS

2 X 15 = 30M

11. Preliminary treatment consists of removal of floating material like dead animals, tree branches, papers, plastics, wood pieces, vegetables peels etc. and also the heavy settleable inorganic solids.  
a) Enlist the methods or devices using in preliminary treatment  
b) Identify and explain the working mechanism of the devices used to remove floating material and to shred coarse solids with figures.  
(CO1) [Application]
12. The IPCC was created to provide policymakers with regular scientific assessments on climate change, its implications and potential future risks, as well as to put forward adaptation and mitigation options. Through its assessments, the IPCC determines the state of knowledge on climate change.  
a) Suggest the possible measures to reduce global warming and mitigate climate change.  
b) Findout solution to climate change at individual level.  
(CO2) [Application]

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