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**GIET UNIVERSITY, GUNUPUR – 765022**  
M. Sc(Third Semester) Examinations, December' 2020  
**CHE 504 / CHPE 304 – ENVIRONMENTAL AND ANALYTICAL CHEMISTRY**  
(Chemistry)

Time: 2 hrs

Maximum: 50 Marks

(The figures in the right hand margin indicate marks.)

- Q.1. Answer **ALL** the questions (2 x 10 = 20)
- What do you mean by pollutant and Pollution?
  - Growing more trees helps in controlling air pollution to some extent. Give reason.
  - Why sulphide and acidic wastes are not dumped at the same disposal site?
  - Is the COD key test for determining the pollution load in water samples?
  - Define the principle of Atomic absorption spectroscopy
  - Name the compounds that have fluorescence property?
  - Define radioisotopes
  - write a note on radiometric titration
  - Write any two differences between Atomic absorption spectroscopy and Flame emission spectroscopy
  - What is ozone depletion?

**PART – B (6 x 5 = 30 Marks)**

- | <u>Answer ANY FIVE questions</u>  | Marks |
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| 2. Explain and illustrate analysis of (i) NO <sub>x</sub> (ii) SO <sub>2</sub>            | (6)   |
| 3. Explain that how aromatic hydrocarbon from exhaust and petrol is analysed              | (6)   |
| 4. Describe briefly the waste water treatment process in detail                           | (6)   |
| 5. Enumerate the adverse effect of toxic elements like Cd, Cr and Pb on environment       | (6)   |
| 6. Discuss Atomic absorption spectroscopy(AAS) instrumentation and applications in detail | (6)   |
| 7. Give an account on applications of fluorimetry   | (6)   |
| 8. Explain the applications of radioisotopes in Medicine, Agriculture and Industry        | (6)   |
| 9. Define the principle of isotopic dilution analysis and explain it with an example      | (6)   |

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