Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_



**End Semester Examination – Nov/Dec – 2018**

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| **Code :** | **18CE3073** | **Duration :** | **3hrs** |
| **Sub. Name :** | **ENVIRONMENTAL GEOTECHNOLOGY** | **Max. marks :** | **100** |

**ANSWER ANY FIVE QUESTIONS (5 x 16 = 80 Marks)**

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | What are the factors governing soil pollutant interaction? | CO1 | 8 |
| b. | Explain the environmental cycle and their interaction with the environment. | CO1 | 8 |
|  |  |  |  |  |
| 2. | a. | What are the geotechnical parameters governing soil pollutant interaction? | CO2 | 8 |
| b. | Briefly describe the failures of foundation due to pollutants. | CO2 | 8 |
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| 3. | a. | What are the factors to be considered while selecting site for landfills? | CO2 | 8 |
|  | b. | Give notes on waste categorization. | CO2 | 8 |
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| 4. |  | Explain the mechanism of contaminant transport in subsurface with the help of governing equations. | CO3 | 16 |
|  |  |  |  |  |
| 5. | a. | What are the hydrogeological factors to be considered in design of landfills? | CO3 | 8 |
|  | b. | What are the measures to be adopted for protecting aquifers from pollution? | CO3 | 8 |
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| 6. | a. | Explain the following terms: absorption, adsorption, precipitation, detoxification. | CO2 | 8 |
|  | b. | Explain in detail the contaminant transport in sub surface. | CO2 | 8 |
|  |  |  |  |  |
| 7. | a. | Explain how the characterization and identification of contaminated ground soil is done. | CO5 | 8 |
|  | b. | Explain in detail the exsitu and insitu remediation of contaminated soils. | CO5 | 8 |
|  | | | | |
| **COMPULSORY QUESTION (1 x 20 = 20 Marks)** | | | | |
| 8. | a. | Explain the control measures and storage system for hazardous wastes. | CO6 | 10 |
|  | b. | Explain in detail organic and inorganic stabilization of waste disposal sites. | CO6 | 10 |