**DEPARTMENT OF CIVIL ENGINEERING**

**FINAL TERM EXAMINATION**

**Subject:** Environmental Management **Duration:** 6 hrs.

**Instructor: Engr Muhammad Hasnain** **Total Marks: 50**

**Note: Attempt all questions. Manage your time properly. Understanding question paper is the part of examination. Draw diagrams wherever necessary.**

1. You are a giving convincing a client regarding wastewater treatment in a housing society which in future will accommodate up to a million residents in future. Also you are in favour of having a wastewater treatment plant in that colony. How are you going to convince the party regarding the waste water treatment? And your preferred choice.
2. You are working on a site which possess a different treatment plants. A group of university students visit your site. You are going to explain the trickling filter process from the schematics to these students as they cannot go near the filter due to safety and health reason. Furthermore, give an idea about its design and equations employed for designing this type of treatment plant. And before proceeding to next plant, conclude your talk on advantages and disadvantages of trickling filter.
3. What is renewable energy? Explain any three uses of renewable energy from waste water sludge.