NAME: EBOSA OFE

LEVEL: 300

COURSE: SOIL MECHANICS II

1. **7 TYPES OF SOILS AND THEIR PERMEABILITY VALUES**

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| **SOIL TYPE** | **COEFFICIENT OF PERMEABILITY(cm/s)** |
| Clean gravel | 1.0 – 100 |
| Sand gravel(mixture) | 10-2 – 10 |
| Clean sand(coarse) | 10-2 – 1.0 |
| Fine sand | 10-3 – 10-1 |
| Silty sand | 10-3 – 10-2 |
| Silt | 10-8 – 10-3 |
| Clay | 10-10 – 10-6 |

1. **IMPORTANCE OF PERMEABILITY TO SOIL ENGINEERING**

* Permeability influences the rate of settlement of a saturated soil under load.
* The stability of slopes and retaining structures can be greatly affected by the permeability involved.
* The design of earth dams is very much based upon thepermeability of soil used.
* Filters made of soils are designed based upon their permeability.
* Understanding of permeability allows for safe construction
* It helps to know what structures can safely be erected at various locations