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

<b>TYPE OF SOIL</b>	<b>PERMEABILITY VALUE</b>
Clean gravel	100 to 1.0
Coarse sand	1.0 to 0.01
Fine sand	0.01 to 0.001
Silt	0.001 to 0.00001
Clay	Less than 0.000001
Delhi silt	0.0000006
Boston blue clay	0.000000007

# **1. EXPLAIN THE RELEVANCE OF SOIL**

## **PERMEABILITY IN SOIL ENGINEERING**

**Permeability** is the measurement of the soil's ability to allow water to flow through its pores or voids. The relevance of soil permeability in soil engineering includes:

- ❖ Soil permeability is applicable in the determination of the rate of settlement of a saturated compressible soil layer.
- ❖ Soil permeability helps in the calculation of seepage through the body of earth dams and stability of slopes for highways.
- ❖ Soil permeability is necessary in the calculation of uplift pressure under hydraulic structure and their safety against piping.
- ❖ Soil permeability is necessary in the design of filters made of soils.
- ❖ Soil permeability plays a key role in the design of retaining walls.