

Answers:

Q(1) c(i) Leakage rate $q = 10.5 \times 10^{-6} \text{ m}^3/\text{s}$ per 1m width of the dam

Q(2) c) Hydraulic conductivity K of silty clay = $1.172 \times 10^{-8} \text{ m/s}$

d) Hydraulic conductivity K of clay = $2.633 \times 10^{-9} \text{ m/s}$

Q(3) b) 57.63 years

c) 2.1 m