

2) Piezometric Surface - The level to which water will rise in a well penetrating a confined or artesian aquifer. See p. 148.

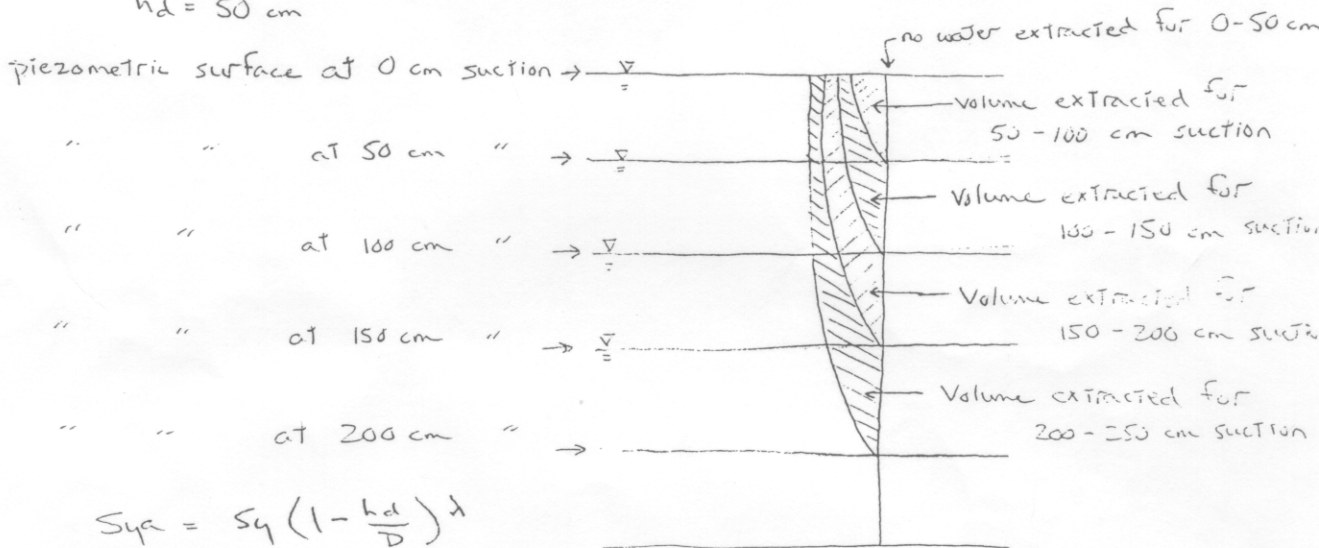
Piezometric Surface of unconfined aquifer is as same as water table.

" of confined aquifer can be higher than the location of the aquifer

4)  $S_{yc}$  increasing with depth -

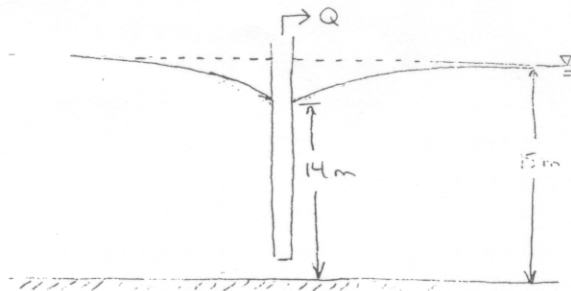
For suction  $< h_d$ , no water extracted

$$h_d = 50 \text{ cm}$$



$$S_{yc} = S_y \left(1 - \frac{h_d}{D}\right)^2$$

6)



$$h_0 = 15 \text{ m}$$

$$r_0 = 450 \text{ m}$$

$$h_w = 14 \text{ m}$$

$$r_w = 0.3 \text{ m}$$

$$K = 20 \text{ m/day}$$

$$Q = ?$$

$$Q = \frac{\pi K (h_0^2 - h_w^2)}{\ln(r_0/r_w)} = \frac{\pi (20 \text{ m/day}) (15^2 \text{ m}^2 - 14^2 \text{ m}^2)}{\ln(450 \text{ m}/0.3 \text{ m})}$$

$$= 249 \text{ m}^3/\text{day} \quad \text{or} \quad 0.0028 \text{ m}^3/\text{s} \quad \text{or} \quad 28 \text{ l/s}$$