

### Sample Question

#### M.Tech Water Engineering and Management (PGQP 36)

1	A well through which water is added to an aquifer is called	
	a) Discharge well	b) Pumping well
	c) Qantas	d) Recharging well
2	Residual drawdown is related to:	
	a) Recovery of groundwater	b) Loss of groundwater
	c) No change in groundwater	d) All of these
3	..... indicate regions of groundwater recharge and.....associated with groundwater discharge.	
	a) Concave contours / Convex contours	b) Convex contours/ Concave contours
	c) Concave contours/ Concave contours	d) Convex contours/ convex contours
4	Usually the configuration of the "Water table" indicates the:	
	a) Loss of groundwater	b) Recharge of groundwater
	c) Direction of groundwater flow	d) Fluctuation of groundwater
5	Salt water occurs at a depth below mean sea level of ..... times the height of fresh water above mean sea level.	
	a)20	b)80
	c) 120	d) 40
6	If a lateral line is serving water to 9 set of sprinklers spaced at 12 m apart with a discharge of 0.30 lps, the length of lateral line and amount of water to be carried by each lateral will be	
	a)102m, 2.4lps	b) 108m, 2.4 lps
	c) 108m, 2.7 lps	d) 102m, 2.7 lps
7	At nozzle of the sprinklers, pressure head is converted to .....	
	a)energy head	b) velocity head
	c) remain same	d) electrical head
8	The square root of a number $N$ is to be obtained by applying the Newton Raphson iterations to the equation $x^2 - N = 0$ . If $i$ denotes the iteration index, the correct iterative scheme will be .....	
9	a) $x_{i+1} = \frac{1}{2} \left( x_i + \frac{N}{x_i} \right)$	b) $x_{i+1} = \frac{1}{2} \left( x_i^2 + \frac{N}{x_i^2} \right)$
	c) $x_{i+1} = \frac{1}{2} \left( x_i + \frac{N^2}{x_i} \right)$	d) $x_{i+1} = \frac{1}{2} \left( x_i - \frac{N}{x_i} \right)$
10	The sediment transport rate in a stream of discharge $Q \text{ m}^3/\text{s}$ is	
	a) $0.0086QC_s$	b) $0.086QC_s$
	c) $0.00086QC_s$	d) $0.00806QC_s$