

Sec-3

Qo1

S.No	Item	Slow Sand filter	Rapid sand filter
1.	Rate of filtration	100 to 200 ltr per hour per m ²	3000 to 6000 ltr per hour per m ²
2.	Loss of head	15 cm initial to 100 cm final.	30 cm initial to 3m final.
3.	size of bed	Requires large area	Requires small area
4.	coagulation	Not Required	Essential.
5.	Filter media of sand	Effective size:- 0.2 to 0.3 mm Cu: 2 to 3 Depth: 108 cm, reduced to not less than 30 cm by scraping.	Effective size:- 0.35 to 0.6 mm Cu: 1.2 to 1.7 Depth: 75 cm - not reduced by washing
6.	Base material of gravel	Size:- 3 to 65 mm Depth: 30 to 75 cm	Size:- 3 to 40 mm Depth: 60 to 90 cm
7.	Method of cleaning	scraping of top layer 1 to 15 mm to 25 mm	Agitation and backwashing with or without compressed air
8.	Economy	High initial cost	Cheap & economical
9.	Method of cleaning	1 to 2 months	2 to 3 days