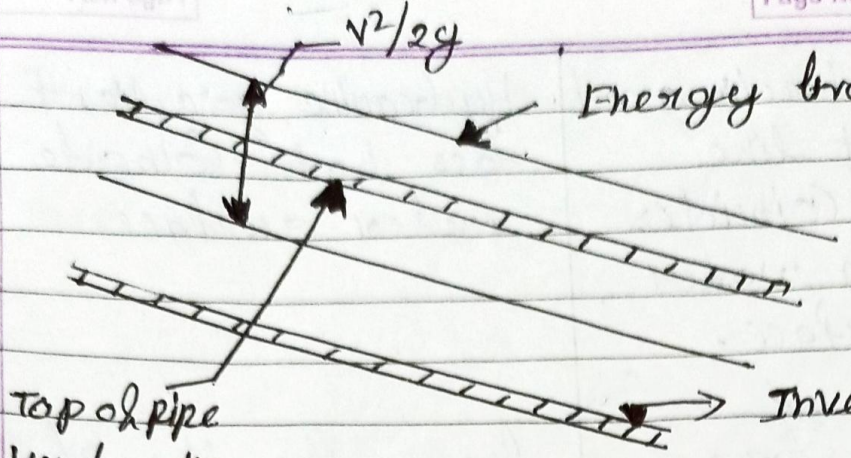
Q2

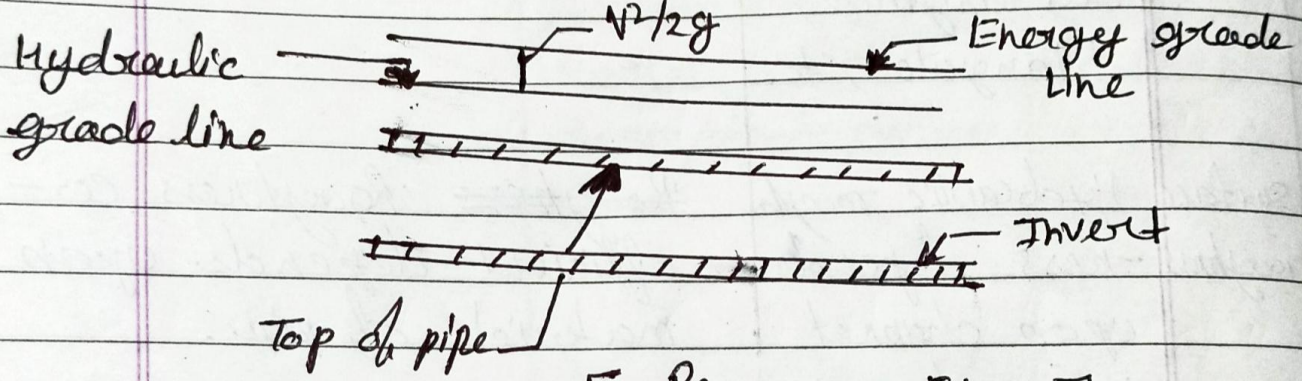
Ans

S. No	Description	open channel flow	Pipe flow
1.	Pressure	Liquid flowing through open channel is always at atmospheric pressure.	Liquid flowing through pipe is always at a higher pressure than atmospheric pressure.
2.	slope	for open channel flow liquid flows under gravity, thus slope has to be provided	The pipe flow does not require slope

3.	Hydraulic gradient line.	Hydraulic gradient line can coincides with water surface.	Hydraulic gradient line does not coincide with water surface.
4.	Shape of Channel	The shape of open channel may be circular, trapezoidal, rectangular, triangular, etc.	Generally the shape of a pipe is circular.
6.	Surface roughness	Hydraulic roughness depends upon channel parameter, depth of flow	~~Roughness~~ Roughness coefficient depends upon material of pipe.



[OPEN CHANNEL FLOW]



[PRESSURE FLOW]

* Hydraulic Grade line :- The Hydraulic gr
line is used to a
the designer in determining the acceptability
a proposed or evalution of an existing s
drainage system by establishing the elevati

Date :
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to which water will arise when the system is operating under design conditions. Detail on this system performance analysis is presented in this appendix.

B. ENERGY Grade line :- Represents the total available energy in the system (potential energy plus kinetic energy).