EXPERIMENT 8

Aim: Analyze the behavior of time vs level of a conical tank system for a given flow rate.

Process diagram:

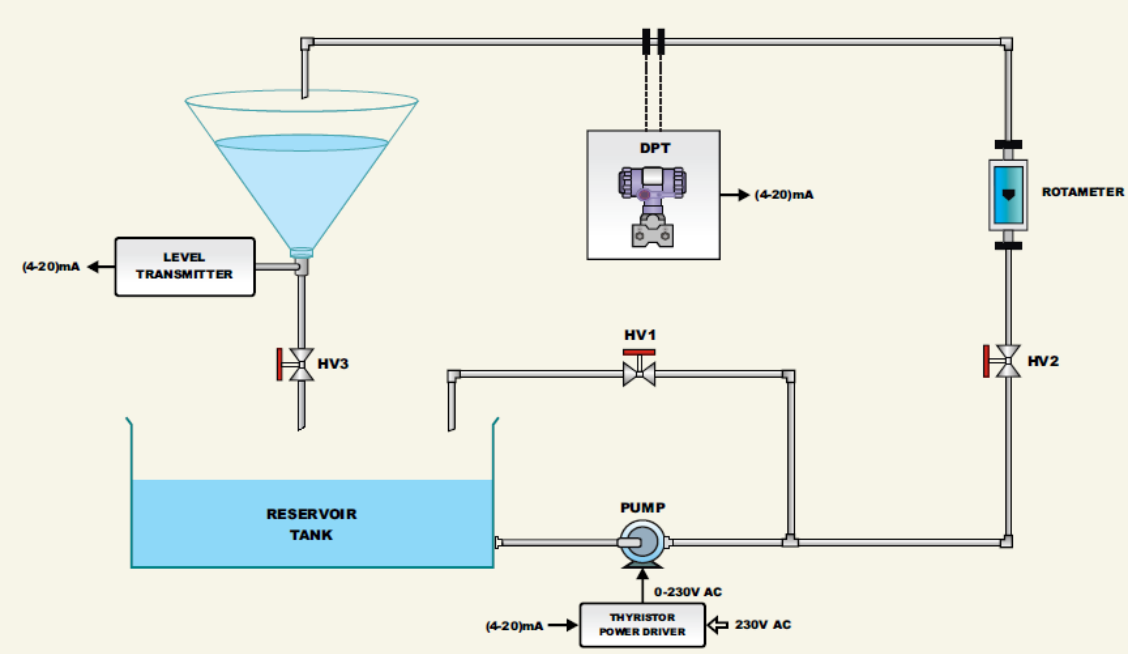

Fig.1: Nonlinear Level Process

Apparatus required:

1) Conical Level Process
2) Stop watch

Procedure:

1. Connect the level sensor output to the meter given in the setup.
2. Use a SCR driven motor speed control knob to vary the flow rate.
3. Fix the flow rate to a value between 200 LPH to 600 LPH.
4. Measure the tank level from glass tube connected to conical tank for every 10/20 sec.
5. Note down 10 to 12 readings and then change the flow rate to another value and repeat steps 4 and 5 for 3 flow rates.
6. Draw the graph of time vs level for all the three flow rates on a single graph.
7. Analyze the graph.

Tabular column:

Sl.No	Flowrate-1(LPH)		Flowrate-2(LPH)		Flowrate-3(LPH)	
	Time(sec)	Level(mm)	Time(sec)	Level(mm)	Time(sec)	Level(mm)

Ideal graph:

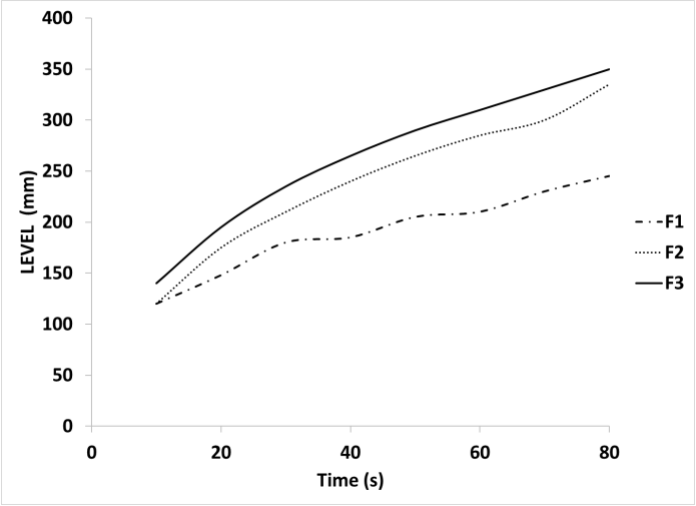

Fig.2: Time v/s Level characteristics

Inference/Conclusion: