Problem No # 1 :-

Nifty was trading on ( 09/Sep/2022) , the Level #1 tick data for 17800 CE option ( expiry 15/sep/2022) is attached here (17800-CE-09-sep-15-sep-Expiry-Problem#1.xlsx).

The tick data is for 1 sec starting from 9:15:00 AM to 9:20:14 AM. Total 258 transactions happened during this duration between buyer & seller.

You have to find out the following for each 258 transactions:-

1. Which is Buyer initiated transaction/trade ?
2. Which is Seller initiated transaction/trade ?

Problem No # 2 :-

Using the data from Problem No # 1.

You have to find out the following for each 258 transactions :

1. What is Open Interest for Buyer for each transaction/trade ?
2. What is Open Interest for Seller for each transaction/trade ?