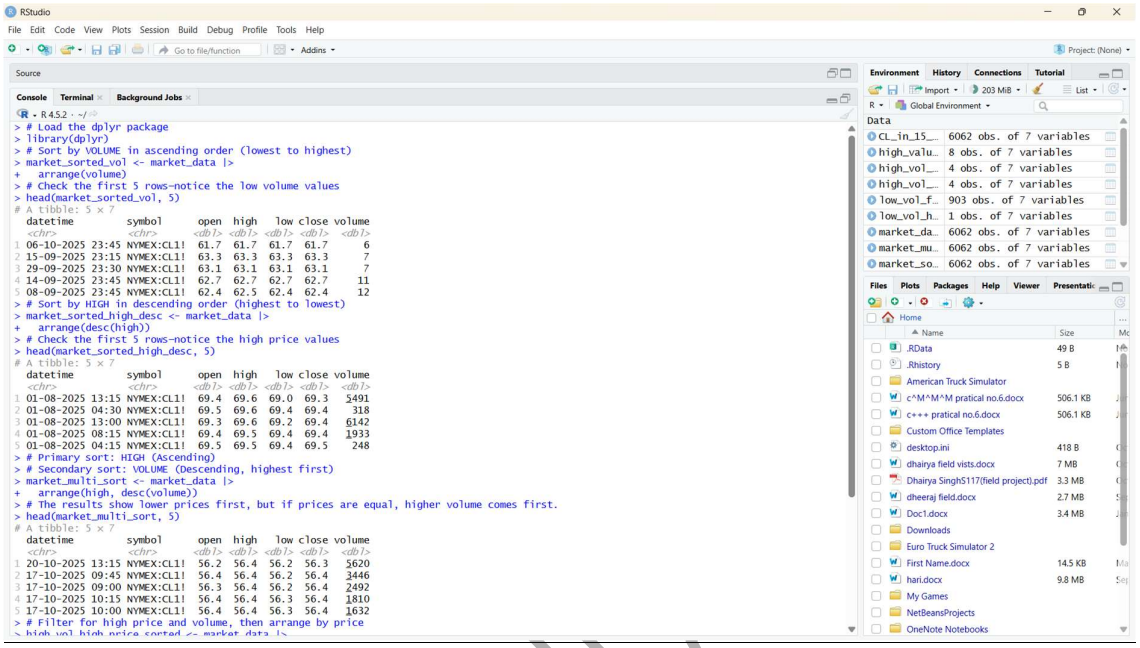
SHETH L.U.J AND SIR M.V. COLLEGE

SUBJECT NAME: **Data Analysis with SAS / SPSS /R**

Practical No. 5

Aim: Sorting data using arrange () in R.

Output-



```
> # Load the dplyr package
> library(dplyr)
> # Sort by VOLUME in ascending order (lowest to highest)
> market_sorted_vol <- market_data |>
+   arrange(volume)
> # Check the first 5 rows-notice the low volume values
> head(market_sorted_vol, 5)
# A tibble: 5 × 7
  datetime         symbol      open  high   low close volume
  <chr>            <chr>      <dbl> <dbl> <dbl> <dbl>  <dbl>
1 06-10-2025 23:45 NYMEX:CL1!  61.7  61.7  61.7  61.7      6
2 15-09-2025 23:15 NYMEX:CL1!  63.3  63.3  63.3  63.3      7
3 29-09-2025 23:30 NYMEX:CL1!  63.1  63.1  63.1  63.1      7
4 14-09-2025 23:45 NYMEX:CL1!  62.7  62.7  62.7  62.7     11
5 08-09-2025 23:45 NYMEX:CL1!  62.4  62.5  62.4  62.4     12
> # Sort by HIGH in descending order (highest to lowest)
> market_sorted_high_desc <- market_data |>
+   arrange(desc(high))
> # Check the first 5 rows-notice the high price values
> head(market_sorted_high_desc, 5)
# A tibble: 5 × 7
  datetime         symbol      open  high   low close volume
  <chr>            <chr>      <dbl> <dbl> <dbl> <dbl>  <dbl>
1 01-08-2025 13:15 NYMEX:CL1!  69.4  69.6  69.0  69.3   5491
2 01-08-2025 04:30 NYMEX:CL1!  69.5  69.6  69.4  69.4    318
3 01-08-2025 13:00 NYMEX:CL1!  69.3  69.6  69.2  69.4   6142
4 01-08-2025 08:15 NYMEX:CL1!  69.4  69.5  69.4  69.4   1933
5 01-08-2025 04:15 NYMEX:CL1!  69.5  69.5  69.4  69.5    248
> # Primary sort: HIGH (Ascending)
> # Secondary sort: VOLUME (Descending, highest first)
> market_multi_sort <- market_data |>
+   arrange(high, desc(volume))
> # The results show lower prices first, but if prices are equal, higher volume comes first.
> head(market_multi_sort, 5)
# A tibble: 5 × 7
  datetime         symbol      open  high   low close volume
  <chr>            <chr>      <dbl> <dbl> <dbl> <dbl>  <dbl>
1 20-10-2025 13:15 NYMEX:CL1!  56.2  56.4  56.2  56.3   5620
2 17-10-2025 09:45 NYMEX:CL1!  56.4  56.4  56.2  56.4   3446
3 17-10-2025 09:00 NYMEX:CL1!  56.3  56.4  56.2  56.4   2492
4 17-10-2025 10:15 NYMEX:CL1!  56.4  56.4  56.3  56.4   1810
5 17-10-2025 10:00 NYMEX:CL1!  56.4  56.4  56.3  56.4   1632
> # Filter for high price and volume, then arrange by price
> high_vol_high_price_sorted <- market_data |>
+   filter(high > 69.50, volume > 300) |>
+   arrange(desc(high))
> cat("Rows where high > 69.50 and volume > 300 (Sorted by High Price):\n")
Rows where high > 69.50 and volume > 300 (Sorted by High Price):
> # Check the columns for confirmation
> print(high_vol_high_price_sorted |> head(5))
# A tibble: 4 × 7
  datetime         symbol      open  high   low close volume
  <chr>            <chr>      <dbl> <dbl> <dbl> <dbl>  <dbl>
1 01-08-2025 13:15 NYMEX:CL1!  69.4  69.6  69.0  69.3   5491
2 01-08-2025 04:30 NYMEX:CL1!  69.5  69.6  69.4  69.4    318
3 01-08-2025 13:00 NYMEX:CL1!  69.3  69.6  69.2  69.4   6142
4 01-08-2025 08:15 NYMEX:CL1!  69.4  69.5  69.4  69.4   1933
>
```