Code A:

```
import pandas as pd
import os
import pathlib as pl

script_dir = pl.Path(__file__).parent.absolute()
print(f"Script Directory: {script_dir}")
os.chdir(script_dir)

print("Section A: \n-----------\n")
mtcars = pd.read_csv('mtcars.csv')
print(f"Summary Statistics of mtcars dataset:\n{mtcars.describe()}")
print(f"Structure of mtcars dataset:")
mtcars.info()
print(f"Miles Per Gallon Quantile:\n{mtcars['mpg'].quantile([0.25, 0.5,
0.75])}")

print("\nSection B: \n-----------\n")
cars = pd.read_csv('cars.csv')
print(f"Summary Statistics of cars dataset:\n{cars.describe()}")
print(f"Structure of cars dataset:")
cars.info()
print(f"Quantile of cars dataset:\n{cars['cty'].quantile([0.25, 0.5,
0.75])}")
```

Code B:

```
import pandas as pd
import os
import pathlib as pl

script_dir = pl.Path(__file__).parent.absolute()
print(f"Script Directory: {script_dir}")
os.chdir(script_dir)

iris = pd.read_csv('iris.csv')
iris_subset = iris[iris['SepalLengthCm'] > 4.6]
print(f"Subset of iris dataset where SepalLengthCm >
4.6:\n{iris_subset}")
print(f"Mean Sepal Length:
{iris.groupby('Species')['SepalLengthCm'].mean()}")
```

Output A:

```
PS C:\DevParapalli\Projects\RTMNU-SEM-6> & "C:/Program Files/Python310/python.exe"
"c:/DevParapalli/Projects/RTMNU-SEM-6/PS-II/Practical 01/a.py"
Script Directory: c:\DevParapalli\Projects\RTMNU-SEM-6\PS-II\Practical 01
Section A:
-----------

Summary Statistics of mtcars dataset:
             mpg        cyl        disp  ...         am       gear     carb
count  32.000000  32.000000   32.000000  ...  32.000000  32.000000  32.0000
mean   20.090625   6.187500  230.721875  ...   0.406250   3.687500   2.8125
std     6.026948   1.785922  123.938694  ...   0.498991   0.737804   1.6152
min    10.400000   4.000000   71.100000  ...   0.000000   3.000000   1.0000
25%    15.425000   4.000000  120.825000  ...   0.000000   3.000000   2.0000
50%    19.200000   6.000000  196.300000  ...   0.000000   4.000000   2.0000
75%    22.800000   8.000000  326.000000  ...   1.000000   4.000000   4.0000
max    33.900000   8.000000  472.000000  ...   1.000000   5.000000   8.0000

[8 rows x 11 columns]
Structure of mtcars dataset:
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 32 entries, 0 to 31
Data columns (total 12 columns):
 #   Column  Non-Null Count  Dtype
---  ------  --------------  -----
 0   model   32 non-null     object
 1   mpg     32 non-null     float64
 2   cyl     32 non-null     int64
 3   disp    32 non-null     float64
 4   hp      32 non-null     int64
 5   drat    32 non-null     float64
 6   wt      32 non-null     float64
 7   qsec    32 non-null     float64
 8   vs      32 non-null     int64
 9   am      32 non-null     int64
 10  gear    32 non-null     int64
 11  carb    32 non-null     int64
dtypes: float64(5), int64(6), object(1)
memory usage: 3.1+ KB
Miles Per Gallon Quantile:
0.25    15.425
0.50    19.200
0.75    22.800
Name: mpg, dtype: float64

Section B:
-----------

Summary Statistics of cars dataset:
            displ         year         cyl         cty         hwy
count  234.000000   234.000000  234.000000  234.000000  234.000000
mean     3.471795  2003.500000    5.888889   16.858974   23.440171
std      1.291959     4.509646    1.611534    4.255946    5.954643
min      1.600000  1999.000000    4.000000    9.000000   12.000000
25%      2.400000  1999.000000    4.000000   14.000000   18.000000
50%      3.300000  2003.500000    6.000000   17.000000   24.000000
75%      4.600000  2008.000000    8.000000   19.000000   27.000000
max      7.000000  2008.000000    8.000000   35.000000   44.000000
```

```
Structure of cars dataset:
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 234 entries, 0 to 233
Data columns (total 11 columns):
 #   Column        Non-Null Count  Dtype
---  ------        --------------  -----
 0   manufacturer  234 non-null    object
 1   model         234 non-null    object
 2   displ         234 non-null    float64
 3   year          234 non-null    int64
 4   cyl           234 non-null    int64
 5   trans         234 non-null    object
 6   drv           234 non-null    object
 7   cty           234 non-null    int64
 8   hwy           234 non-null    int64
 9   fl            234 non-null    object
 10  class         234 non-null    object
dtypes: float64(1), int64(4), object(6)
memory usage: 20.2+ KB
Quantile of cars dataset:
0.25    14.0
0.50    17.0
0.75    19.0
Name: cty, dtype: float64
```

Output B:

```
PS C:\DevParapalli\Projects\RTMNU-SEM-6> & "C:/Program Files/Python310/python.exe"
"c:/DevParapalli/Projects/RTMNU-SEM-6/PS-II/Practical 01/b.py"
Script Directory: c:\DevParapalli\Projects\RTMNU-SEM-6\PS-II\Practical 01
Subset of iris dataset where SepalLengthCm > 4.6:
      Id  SepalLengthCm  SepalWidthCm  PetalLengthCm  PetalWidthCm         Species
0      1            5.1           3.5            1.4           0.2     Iris-setosa
1      2            4.9           3.0            1.4           0.2     Iris-setosa
2      3            4.7           3.2            1.3           0.2     Iris-setosa
4      5            5.0           3.6            1.4           0.2     Iris-setosa
5      6            5.4           3.9            1.7           0.4     Iris-setosa
..   ...            ...           ...            ...           ...             ...
145  146            6.7           3.0            5.2           2.3  Iris-virginica
146  147            6.3           2.5            5.0           1.9  Iris-virginica
147  148            6.5           3.0            5.2           2.0  Iris-virginica
148  149            6.2           3.4            5.4           2.3  Iris-virginica
149  150            5.9           3.0            5.1           1.8  Iris-virginica

[141 rows x 6 columns]
Mean Sepal Length: Species
Iris-setosa        5.006
Iris-versicolor    5.936
Iris-virginica     6.588
Name: SepalLengthCm, dtype: float64
```