ANS 1:-
```
data = np.array([['','Col1','Col2'],
['Row1',1,2],
['Row2',3,4]])
print(pd.DataFrame(data=data[1:,1:],
 index=data[1:,0],
 columns=data[0,1:]))
```

ANS 2:-
```
# Using `iloc[]`
print(df.iloc[0][0])
# Using `loc[]`
print(df.loc[0]['A'])
# Using `at[]`
print(df.at[0,'A'])
# Using `iat[]`
print(df.iat[0,0])
```

ANS 3:-
```
# Use `iloc[]` to select a row
print(df.iloc[0])
# Use `loc[]` to select a column
print(df.loc[:,'A'])
```

ANS 4:-
```
# Print out your DataFrame `df` to check it out
print(df)
# Set 'C' as the index of your DataFrame
df.set_index('C')
```

ANS 5:-
```
df = pd.DataFrame(data=np.array([[1, 2, 3], [4, 5, 6], [7, 8, 9]]),
Index= [2, 'A', 4], columns=[48, 49, 50])
# Pass `2` to `loc`
print(df.loc[2])
# Pass `2` to `iloc`
print(df.iloc[2])
 # Pass `2` to `ix`
```

```
print(df.ix[2])
```

ANS 6:-

```
df = pd.DataFrame(data=np.array([[1, 2, 3], [4, 5, 6], [7, 8, 9]]), index= [2.5, 12.6, 4.8], columns=[48, 49, 50])

# There's no index labeled `2`, so you will change the index at position `2`
df.ix[2] = [60, 50, 40]

print(df)

# This will make an index labeled `2` and add the new values

df.loc[2] = [11, 12, 13]

print(df)
```

ANS 7:-

```
# Study the DataFrame `df`

print(df)

# Append a column to `df`

df.loc[:, 4] = pd.Series(['5', '6'], index=df.index)

# Print out `df` again to see the changes

print(df)
```

ANS 8:-

```
# Check out the weird index of your dataframe

print(df)

# Use `reset_index()` to reset the values

df_reset = df.reset_index(level=0, drop=True)

# Print `df_reset`

print(df_reset)
```

ANS 9:-

```
df = pd.DataFrame(data=np.array([[1, 2, 3], [4, 5, 6], [7, 8, 9]]), columns=['A', 'B', 'C'])

# Use `.index`

df['D'] = df.index

# Print `df`

print(df)
```

ANS 10:-

```
# Check out the DataFrame `df`

print(df)

# Drop the column with label 'A'
```

```
df.drop('A', axis=1, inplace=True)
# Drop the column at position 1
df.drop(df.columns[[1]], axis=1)
```

ANS 11:-

```
# Check out your DataFrame `df`
print(df)
# Drop the duplicates in `df`
df.drop_duplicates([48], keep='last')
```

ANS 12:-

```
# Check out your DataFrame `df`
print(df)
# Define the new names of your columns
newcols = {
    'A': 'new_column_1',
    'B': 'new_column_2',
    'C': 'new_column_3'
}
# Use `rename()` to rename your columns
df.rename(columns=newcols, inplace=True)
# Rename your index
df.rename(index={1: 'a'})
```

ANS 13:-

```
# Study the DataFrame `df` first
print(df)
# Replace the strings by numerical values (0-4)
df.replace(['Awful', 'Poor', 'OK', 'Acceptable', 'Perfect'], [0, 1, 2, 3, 4])
```

ANS 14:-

```
# Check out your DataFrame
print(df)
# Delete unwanted parts from the strings in the `result` column
df['result'] = df['result'].map(lambda x: x.lstrip('+-').rstrip('aAbBcC'))
# Check out the result again
df
```

ANS 15:- #import the pandas library and aliasing as pd

```
import pandas as pd
df = pd.DataFrame()
print df
```

ANS 16:- df = pd.DataFrame(data=np.array([[1, 2, 3], [4, 5, 6], [7, 8, 9]]), columns=['A', 'B', 'C'])

```
for index, row in df.iterrows() :
print(row['A'], row['B'])
```

ANS 17:- df = pd.DataFrame(index=range(0,4),columns=['A'], dtype='float')

```
print(df)
```

ANS 18:-

```
import pandas as pd
data = [1,2,3,4,5]
df = pd.DataFrame(data)
print df
```

ANS 19:-

```
import pandas as pd
data = [['Alex',10],['Bob',12],['Clarke',13]]
df = pd.DataFrame(data,columns=['Name','Age'])
print df
```

ANS 20:-

```
import pandas as pd
data = {'Name':['Tom', 'Jack', 'Steve', 'Ricky'],'Age':[28,34,29,42]}
df = pd.DataFrame(data)
print df
```

ANS 21:-

```
import pandas as pd
data = {'Name':['Tom', 'Jack', 'Steve', 'Ricky'],'Age':[28,34,29,42]}
df = pd.DataFrame(data, index=['rank1','rank2','rank3','rank4'])
print df
```

ANS 22:-

```
import pandas as pd
data = [{'a': 1, 'b': 2},{'a': 5, 'b': 10, 'c': 20}]
```

```
df = pd.DataFrame(data)
print df
```

ANS 23:-

```
import pandas as pd
data = [{'a': 1, 'b': 2},{'a': 5, 'b': 10, 'c': 20}]
df = pd.DataFrame(data, index=['first', 'second'])
print df
```

ANS 24:-

```
import pandas as pd
data = [{'a': 1, 'b': 2},{'a': 5, 'b': 10, 'c': 20}]
#With two column indices, values same as dictionary keys
df1 = pd.DataFrame(data, index=['first', 'second'], columns=['a', 'b'])
#With two column indices with one index with other name
df2 = pd.DataFrame(data, index=['first', 'second'], columns=['a', 'b1'])
print df1
print df2
```

ANS 25:-

```
import pandas as pd
df = pd.DataFrame([[1, 2], [3, 4]], columns = ['a','b'])
df2 = pd.DataFrame([[5, 6], [7, 8]], columns = ['a','b'])
df = df.append(df2)
print df
```