1. Create a 2-dimensional ndarray object 'Arr' with the code below and answer the following.

```
>>> import numpy as np
>>> np.random.seed(123)
>>> Arr = np.random.randn(8, 10)
```

(1) Write an expression to calculate column sum of Arr.

(2) Write an expression that finds the position (row and column index) of an element greater than 2 in Arr.

2. Write 3 different expressions to create a pandas Series object 'S' displayed as follows.

```
>>> S
a    0
b    1
c    2
d    3
dtype: int64
```

3. Write 4 different expressions to select the 2nd and the 3rd elements of Snew.

```
>>> Snew = pd.Series({'a': 1, 'b':4. 'c':2, 'd':3} )
```

※ Create a DataFrame object by the following codes. (for 4. ~ 5.)

```
>>> import numpy as np
>>> import pandas as pd
>>> np.random.seed(123)
>>> DF = pd.DataFrame(np.random.randn(6,7),
                      columns=list('abcdefg'), index=[3,2,4,5,1,0])
```

4. Fill in the appropriate expression in square brackets so you can select columns 'c' and 'e'.

(1) >>> DF.iloc [ ]

(2) >>> DF [ ]

5. Fill in the appropriate expression in square brackets so that you can select rows with negative values for column 'c'.

(1) >>> DF.loc [ ]

(2) >>> DF [ ]