

United International University
CSE 3812 - AI Lab
Mid Assignment
Total Marks : 15

Q1. `import numpy as np`
`arr = np.array([1,3,9,5,2])`

Write down the program to filter the numpy subarray that has all elements less than 3

Q2. `a = np.array([[1,2,31,45],`
`[4,11,23,8],`
`[7,18,20,6]])`

Write down the instruction so that you can extract `[[2,31],[11,23]]` from the `a`.

Q3. `List1 = ["Red", "Blue", [20,3,10,5], "Green"]`

Write down the code to extract the sub-list `[3,10]` from the `List1`.

Q4. `dict = {`
`"color": "Black",`
`"model": "Samsung",`
`"year": 2022`
`}`

Write down the instruction so that it prints all the keys from this dictionary

Q5. `Arr = [10,-3,5,6,7,3,-1,15,2]`

Write the code to find out the maximum number from this array.

Q6. Write a python class named “Direction”; add three attributes and initialize them using the constructor.

Q7. `Name = “A”`
`Age = 20`
`Print(...)`

Write down the statement inside the print function so that it prints “A is aged 20” using f-string where A is the value of “Name” and 20 is the value of “Age”.

Q8. `L = [[1,6,7],`
`[3, 5],`
`[1,3,2]]`

Can you convert this 2-D list to a 2-D integer numpy array? Justify your answer in a single line.