Write all your answers legibly. If we cannot read your handwriting, your solution will not be graded. Notes and electronics are not allowed.

Name: __________________________ UIN: ______________________

Circle the right answer(s) for the following statement

1. Python lists are:
   (a) **Mutable**
   (b) Immutable
   (c) **Ordered**
   (d) Unordered
   (e) **Indexable**

2. Which of the following datatypes can be used as a sequence for a loop?
   (a) **String**
   (b) Integer
   (c) **List**
   (d) **Range object**
   (e) Boolean

3. Python list comprehension is used for:
   (a) Understanding the datatypes of the elements entered in a list
   (b) Slicing a list in sub-lists of equal length
   (c) **Creating a new list from another iterable**
   (d) Removing duplicate elements from a list

4. What is the expected output for this line of code: `list(range(0, 10, 2))`
   (a) `[1, 3, 5, 7, 9]`
   (b) `range(0, 10, 2)`
   (c) `(0, 10, 2)`
   (d) **error**
   (e) `[0, 2, 4, 6, 8]` (correct answer)
   (f) `[0, 1, 2, 3, 4, 5, 6, 7, 8, 10]`
5. What is the expected output for this program?

Write your answers in the box below:

```
numbers = [n * 2 for n in range(10) if n % 3 == 0]
print(numbers)
```

[0, 6, 12, 18]

6. What are the expected outputs for this program?

Write your answers in the boxes below:

```
roster = [1, 2, 3, 4]
print(roster[1:3])
print(roster[: -3])
print(roster[3:1: -1])

ids = [5]
ids.append([6, 7])
print(ids)

rank = [5]\nrank.extend([6, 7])
print(rank)

grades = [89, 75, 98, 81]
grades.remove(75)
print(grades)
grades.insert(-1, 96)
print(grades)
```

- Line 2: [2, 3]
- Line 3: [1]
- Line 4: [4, 3]
- Line 8: [5, [6, 7]]
- Line 12: [5, 6, 7]
- Line 16: [89, 98, 81]
- Line 18: [89, 98, 96, 81]