Midterm Exam

Written Portion

This first portion of the exam is closed-book. No outside material is allowed. Once you finish this portion and turn it in, you may open your laptop and continue on to the coding portion of the exam.

This exam is multiple choice. Circle the correct answer. Do not make any other marks.

Name: _____

1. What is printed by the following code?

```
print(type(lambda:None))
```

A. `<class 'function'>` B. `<class 'NoneType'>` C. `<class 'tuple'>`
D. `<class 'type'>` E. `<class 'object'>` F. Code results in an error.

2. What is printed by the following code?

```
print(type([1,2]))
```

A. `<class 'int'>` B. `<class 'set'>` C. `<class 'list'>`
D. `<class 'tuple'>` E. Code results in an error.

3. What is printed by the following code?

```
foo = (3, 4, 5)
print(type(foo))
```

A. `<class 'set'>` B. `<class 'dict'>` C. `<class 'list'>` D. `<class 'tuple'>`
E. `<class 'object'>` F. Code results in an error.

4. What is printed by the following code?

```
d = lambda p: p * 2
t = lambda p: p * 3
x = 2
x = d(x)
x = t(x)
x = d(x)
print(x)
```

A. 12 B. 22 C. 24 D. 36

5. What is printed by the following code?

```
name = "snow storm"

print(name[6:8])
```

A. st B. sto C. to D. tor E. Code results in an error.

6. What is printed by the following code?

```
boxes = {}
jars = {}
crates = {}

boxes['cereal'] = 1
boxes['candy'] = 2
jars['honey'] = 4
crates['boxes'] = boxes
crates['jars'] = jars

print(len(crates[boxes]))
```

A. 1 B. 2 C. 4 D. 7 E. Code results in an error.

7. What is printed by the following code?

```
names = ['Amir', 'Barry', 'Corinne', 'Dora']
print(names[-1][-1])
```

A. Dora B. A C. a D. Amir E. r F. Code results in an error.

8. What is printed by the following code?

```
import numpy as np

a = np.array([[1, 2, 3], [4, 5, 6]])
a = a + 3
print(a[1,2])
```

A. 2 B. 4 C. 9 D. Code results in an error. E. None of the above.