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

1. Explain the difference between an explicit type conversion and an implicit type conversion.
An explicit type conversion is manually performed by the user/programmer to convert a data type.
An implicit type conversion is automatically performed by the Python interpreter to convert a data type.

2. Consider the following Python program.
```
1 a = 5 / 10
2 b = "aggies"
3 c = 3 + 5 + 1
4 d = b * 3
5 e = int (3.5)
```
(a) What is the data type of the variable a? Float
(b) What is the data type of the variable b? String
(c) What is the data type of the variable c? Integer
(d) What is the data type of the variable d? String
(e) What is the data type of the variable e? Integer

3. Consider the following Python program.
```
1 a = 5
2 b = 2
3 print (a % b)
4 print (a // b)
5 print (a ** b)
```
(a) What is the output of line 3? 1
(b) What is the output of line 4? 2
(c) What is the output of line 5? 25
4. What is the output of line 2?

```python
>>> x = "refrigerator"
>>> print(x[2])
```

f

5. What is the output of line 2?

```python
>>> x = "refrigerator"
>>> print(x[2:5])
```

fri

6. What is the output of line 2?

```python
>>> x = "refrigerator"
>>> print(x[8:])
```

ator

7. What is the output of line 2?

```python
>>> x = "refrigerator"
>>> print(x[::2])
```

rfieao

8. What is the output of line 2?

```python
>>> x = "refrigerator"
>>> print(x[::-1])
```

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9. In Python, the input() function returns:

(a) A float
(b) An integer
(c) A print
(d) A string
(e) An operator