

Sample Midterm #2

These are sample questions that are very similar to the ones I will ask on the midterm. The actual midterm will be about this length.

1. Evaluate each expression. If any cannot be evaluated, say why.

- (a) "hello"+ "goodbye"
- (b) 7 * True
- (c) 6 / "spam"
- (d) True and (not False or True)
- (e) 'she' in "hehisandits"

2. Convert the following into Python.

- (a) "hello" follows "goodbye" in the character ordering of the computer
- (b) The value of the variable *answer* is true or the value of the variable *y* is less than 126
- (c) The function *gleep* is called with an argument of -21

3. Convert the following into a "for" loop.

```
i = 1
while i < 10:
    print i * "x"
    i += 3
```

4. What does the following function do when given a string as the first argument and a string containing only one character as the second argument?

```
def x(s, c):
    i = 0
    while i < len(s):
        if s[i] == c:
            return i
        i += 1
    return -1
```

5. What does the following function do?

```
def a(s):
    if len(s) < 2:
        return s
    return s[-1] + a(s[1:-1]) + s[0]
```

6. What does the following program do?

```
d = dict()
while True:
    try:
        line = input("EOF to stop> ")
    except EOFError:
        break
    for i in line:
        d[i] = d.get(i, 0) + 1
u = d.keys()
for i in u:
    print i, d[i]
```