

CS21 PRACTICE QUIZ 2, Swarthmore College Fall 2008

1. For each of the following expressions, show the value that will be returned by the Python interpreter. Assume that you already have `text = "swarthmore college"` and you have imported the string library using `from string import *`.

- (a) `split(text)`
- (b) `upper(text)`
- (c) `text[1:5]`
- (d) `"4" + text[11:20] + "5"`

2. What is the output of the following program?

```
def main():
    word = "boz"
    result = ""
    for letter in word:
        result = result + chr(ord(letter) - 1)
    print result
```

3. Consider the program below which is intended to determine whether a given number is negative, zero, or positive.

```
def main():
    n=input("Enter a number: ")
    if n < 0:
        print "negative"
    if n > 0:
        print "positive"
    else:
        print "zero"
```

- (a) What will be printed if the user enters 5 at the prompt?
- (b) What will be printed if the user enters -5 at the prompt?
- (c) What will be printed if the user enters 0 at the prompt?
- (d) Does the program give the desired result?
If not, write a corrected version below.

4. A person is eligible to be a US senator if he or she is at least 30 years old and has been a citizen for at least 9 years. Write a program that takes a person's age and years of citizenship as input and returns their eligibility for the Senate. For example:

```
>>> main()
Enter your age >> 30
Enter years US citizen >> 5
Eligibility for the Senate:
You have not been a US citizen long enough.
```

```
>>> main()
Enter your age >> 30
Enter years US citizen >> 10
Eligibility for the Senate:
You are eligible!
```

```
>>> main()
Enter your age >> 29
Enter years US citizen >> 10
Eligibility for the Senate:
You are too young.
```

5. Finish the code for the program below so that it produces the following pattern of stars of some size, n , entered by the user (in this example, n is 4):

```
* * * *
 * * *
  * *
   *
```

```
def main() :

    print "This program prints out a pattern of stars"
    n = input("Enter a value for the size of the pattern: ")
```