

(There will be some questions with code fragments that may involve the use of bluetooth, python programming on the phone, or crickets. There will be about 20 questions.)

### **Questions for last year's quiz:**

Note that the material was in a different order last year, so many of the questions are irrelevant, but this will give a flavor of how I write questions. They are all short answer.

How does the iPkg system know where to find its feeds?

Describe how the correct code gets executed when tapping a button on the iPaq's screen.

What are the basic components of speech processing?

Explain how to use Baye's theorem to identify people in a picture?

Give a Speechbuilder grammar that lets one control a logo turtle.

- \* There is a pen that can go up and down.
- \* The turtle can face either north, south, east, or west.
- \* The turtle can go forward a distance of 1, 2, or 3 squares.
- \* The turtle can repeat an action 3, 4, or 5 times.
- \* The turtle can roll over, stand on its hind legs, or hide it's head.

Describe how to perform the same turtle control put using the sketching system rather than speech.

Give the rules necessary to recognize a triangle in the ladder sketch system?

Describe how a vision system might be able to recognize a bicycle within a picture.

People have an iPaq with cricket listener and there are three beacons in the ceiling. How can their iPaq detect if they are walking in a circle?

What is the major difference between BATs and Crickets (the devices, not the animals)?

Each of the systems we learned about, has a mechanism to handle ambiguous input. Describe that mechanism for

- i) GUI
- ii) Speech
- iii) Location

- iv) Sketching
- v) Vision

Here is some python client socket code: What parameters are needed to invoke it?

```
import sys
import socket
s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.connect( (sys.argv[1], int(sys.argv[2])) )
while True:
.....data = sys.stdin.readline()
.....if len(data) == 0:
.....print "closing connection with server"
.....break
s.send(data)
```

Briefly describe the Wizard of Oz prototyping framework. List some advantages and disadvantages compared to other prototyping methods.

What is "Calm Computing"?