IB Computer Science **Name** :_____(3 points)

Exam 1

1) Determine what each of the following Python expressions will return. In other words, if these expressions were entered into the Python terminal, what would they return? (5 points each)

a.

```
5/2
```

```
>>>>2
```

b.

```
5./2.
```

```
>>>>2.5
```

c.

```
5%3
```

```
>>>>2
```

d.

```
not(5>6) and (True or False)
```

```
>>>>True
```

e.

```
(5==4) or (not True)

>>>>fale
```

2) Write the output of the following programs. (8 points each)

a.

```
for i in range(3):
      print i*i
print "hi"
```

```
>>>>0,1,2,4 hi
```

b.

```
s=0
for x in [5,3,1]:
      s=s+x
print s
```

```
>>>>9
```

c.

```
x=16
while x  > 5:
      x=x/2
print x
```

```
>>>>4
```

d.

```
a=7
```

```
if a%2==1:
      print "yoda"
else:
      print "do yoga"


      >>>> yoda
```

3) The following questions are about Git. (10 points each)

a. Explain how to create a new git repository. Include all terminal commands and things you must do on github. Assume your github user name is "Charlie" and your project is in a folder named "Project" in your Documents folder. Name the repository "ProjRepo".

¿¿¿¿cd documents/project git global – config user.name charlie git global – config user.email git init git add git remote add origin http://github.com/charlie/project.git git push origin master

b. Explain how to clone a repository name "Awesome" from github user named "Barry22". Clone the repository into your Documents folder.

¿¿¿¿cd documents git clone http://github.com/Barry22/Awesome.git

4) Write a program that constructs an array filled with all of the prime numbers between 2 and 100. (20 points)

a=[] for i in range(2,100): prime=true for x in range(2,i): if iprime=false if prime a=a+[i]