Python Fundamentals

```
>>> print("Name : Alfred Jophy\nRoll No. : CS27\nAdmission No. 80962")
Name : Alfred Jophy
Roll No. : CS27
Admission No. 80962
>>>
```

1. Accept name and birthday from user and display as separate line

```
>>> name=input("Enter your name : ")
Enter your name : Alfred Jophy
>>> birthday=input("Enter your birthday : ")
Enter your birthday : 12 September 2002
>>> print(name+"\n"+birthday)
Alfred Jophy
12 September 2002
>>>
```

2. Categories the below into runtime , syntax or logical errors

1. `25/0`

   Runtime Error

2. `Print 'Hello'`

   Syntax Error

3. ```
   num1=25
   num2=0
   C=num1/num2
   ```

   Runtime Error

```
>>> 25/0
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
ZeroDivisionError: division by zero
>>> Print 'Hello'
  File "<stdin>", line 1
    Print 'Hello'
          ^
SyntaxError: invalid syntax
>>> num1=25
>>> num2=0
>>> C=num1/num2
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
ZeroDivisionError: division by zero
>>>
```

3. Find the output of the below

1. `bool(int('0'))`
2. `bool(str(0))`
```

3. `bool(float(0.0))`
4. `bool(str(0.0))`

```
>>> bool(int('0'))
False
>>> bool(str(0))
True
>>> bool(float(0.0))
False
>>> bool(str(0.0))
True
>>>
```

4. Find the output

```
str1='''Hell
o
'''
str2='''Hell\
o
'''
print(len(str1) > len(str2))
```

```
>>> str1='''Hell
... o'''
>>> str2='''Hell\
... o'''
>>> print ( len(str1) > len(str2) )
True
>>>
```

5. Find the output of the below

1. `type(6+3)`
2. `type(6-3)`
3. `type(6*3)`
4. `type(6/3)`
5. `type(6//3)`
6. `type(6%3)`

```
>>> type(6+3)
<class 'int'>
>>> type(6-3)
<class 'int'>
>>> type(6*3)
<class 'int'>
>>> type(6/3)
<class 'float'>
>>> type(6//3)
<class 'int'>
>>> type(6%3)
<class 'int'>
>>>
```

6. Give output of the following when `num1=4,num2=3,num3=2`

1.
```
num1+=num2+num3
print (num1)
```
2.
```
num1=num1**(num2+num3)
print(num1)
```
3.
```
num1**=num2+num3
print(num1)
```
4.
```
num1='5'+'5'
print(num1)
```
5.
```
print (4.00/(2.0+2.0))
```
6.
```
num1=2+9*((3*12)-8)/10
print(num1)
```
7.
```
num1=24//4//2
print(num1)
```
8.
```
num1=float(10)
print(num1)
```
9.
```
num1=int('3.14')
print(num1)
```
10.
```
print('Bye'== 'BYE')
```

```
>>>
>>> num1,num2,num3 = 4,3,2
>>> num1+=num2+num3
>>> print(num1)
9
>>>
>>> num1,num2,num3 = 4,3,2
>>> num1=num1**(num2+num3)
>>> print(num1)
1024
>>>
>>> num1,num2,num3 = 4,3,2
>>> num1**=num2+num3
>>> print(num1)
1024
>>>
>>> num1,num2,num3 = 4,3,2
>>> num1='5'+'5'
>>> print(num1)
55
>>>
>>> print(4.00/(2.0+2.0))
1.0
>>>
>>> num1,num2,num3 = 4,3,2
>>> num1=2+9*((3*12)-8)/10
>>> print(num1)
27.2
>>>
>>> num1=2+9*((3*12)-8)/10
>>> num1,num2,num3 = 4,3,2
>>> num1=24//4//2
>>> print(num1)
3
>>>
>>> num1=float(10)
>>> print(num1)
10.0
>>>
```

```
>>>
>>> num1,num2,num3 = 4,3,2
>>> num1=int('3.14')
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
ValueError: invalid literal for int() with base 10: '3.14'
>>> print(num1)
4
>>>
>>> print('Bye' == 'BYE')
False
>>>
```

7. Write a program to enter two integers and perform all arithmetic operations on them (+,-,*./)

Source Code

```
#!/bin/python

num1=int(input("Enter the first number: "))
num2=int(input("Enter the second number: "))

s=num1+num2
d=num1-num2
p=num1*num2

if num2 == 0:
    q="Undefined"
else :
    q=num1/num2

print(num1,"+",num2,"=",s)
print(num1,"-",num2,"=",d)
print(num1,"x",num2,"=",p)
print(num1,"/",num2,"=",q)
```

Output

1. 

2.