Dictionaries

1. Consider the following dictionary:

```
color_code = {'red':    '#FF0000',
              'green': '#00FF00',
              'blue':   '#0000FF'}
```

What will be printed for the following expressions? If an expression generates an error write "error".

Expression	Value
color_code['red']	
color_code['black']	
color_code['#00FF00']	
color_code[2]	

2. What is the output of the following code snippet?

```
capitals = {'India': 'New Delhi',
            'USA':   'Washington DC',
            'China': 'Beijing'}

for item in capitals:
   print(item)
```

3. What is the output of the following code snippet?

```
word = "Happiness"
d = dict()
for letter in word:
   if letter in d:
       d[letter] += 1
   else:
       d[letter] = 1
print(d)
```

4. Consider the following dictionary:

```
d = {}
d[0] = 'zero'
d[1] = 'one'
d[2] = 'two'
```

What will be printed for the following expressions? If an expression generates an error write "error".

Expression	Value
1 in d	
'2' in d	
2 not in d	
'zero' in d	

5. Consider the following dictionary:

```
person = {}
person['name'] = 'Adalbert Gerald Soosai Raj'
person['age'] = 30
person['isAlive'] = True
person['phone'] = [
   {'type': 'office', 'number': '608-123-4567'},
   {'type': 'home', 'number': '608-987-6543'}
]
person['address'] = {'street': '1210 West Dayton Street',
'city': 'Madison', 'state': 'WI', 'zip': 53706}
```

What is the **type** (int, float, bool, str, list, dict) of the following expressions?

Expression	Type	Expression	Type
person		person['isAlive']	
person['name']		person['phone']	
person['age']		person['address']	