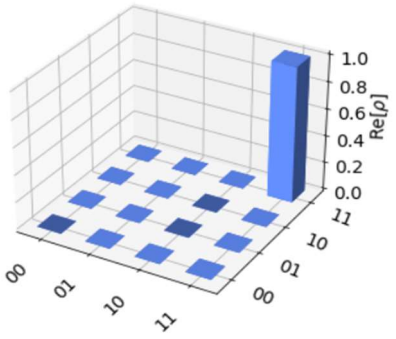
## Sample Exam Image Questions Part 1

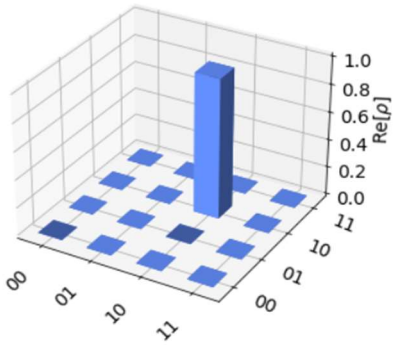
**1) Which of the given options is the correct state city of the given code?**

```
qc= QuantumCircuit(2)
qc.x(0)
qc.cx(0,1)
```

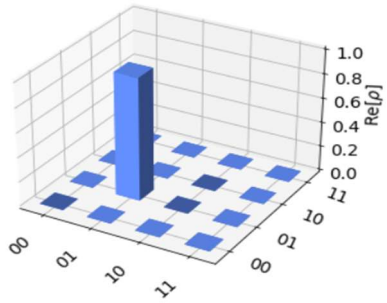
a)



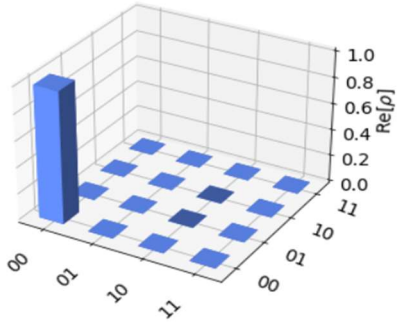

b)




c)



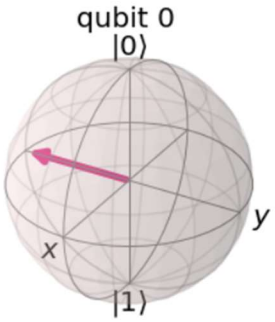

d)



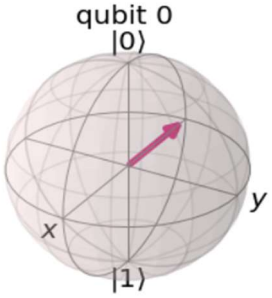
**2) Select the correct output bloch sphere when the given code is executed**

```
qc = QuantumCircuit(1)
qc.h(0)
qc.x(0)
qc.ry(pi/2,0)
qc.rx(-pi/2,0)
qc.x(0)
```

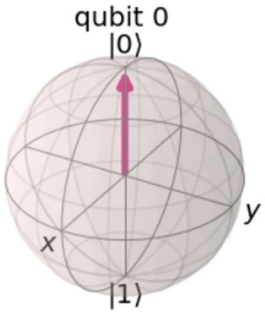
a)



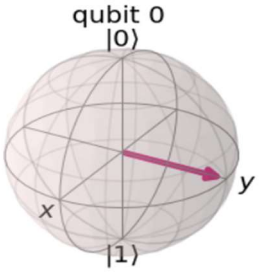

b)




c)




d)

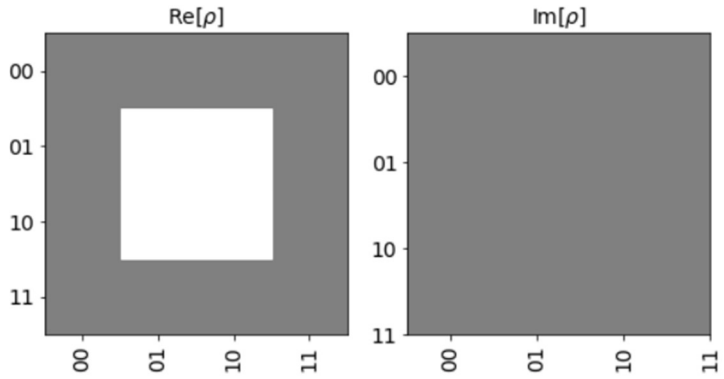



**3) Which one of the following is the correct state hinton graph of the given code?**

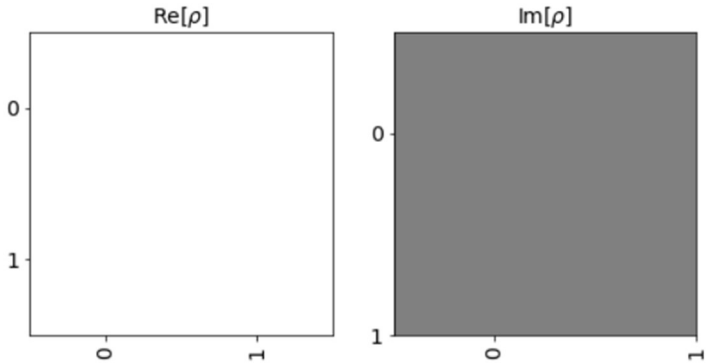
```
qc = QuantumCircuit(2,2)
qc.h(0)
```

```
qc.x(1)
qc.cx(0,1)
```

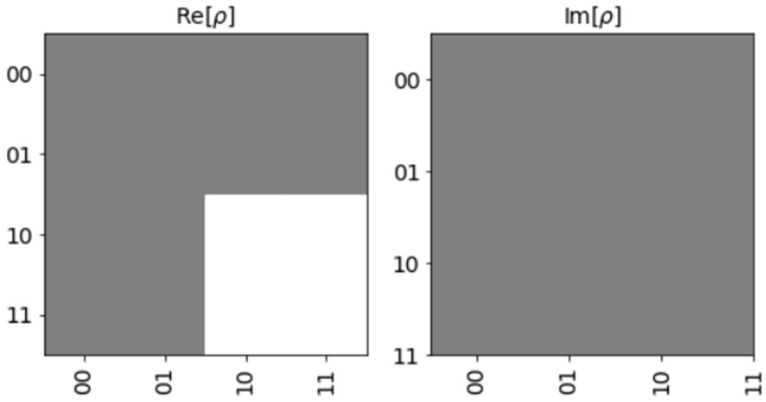
a)



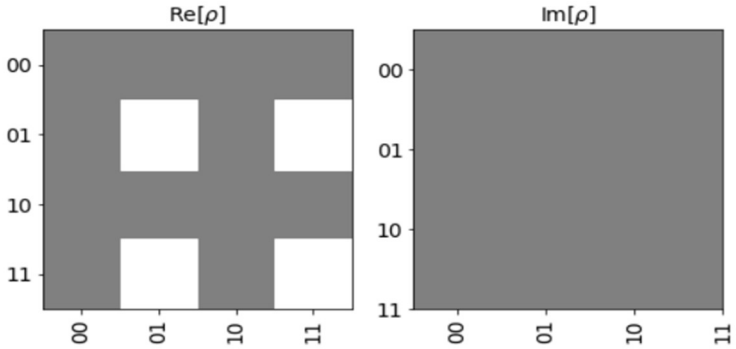

b)




c)



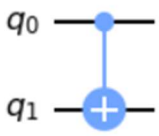

d)



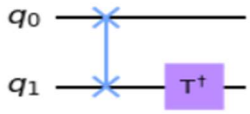
**4) How does the following code look?**

```
qc = QuantumCircuit(2)
qc.mct([0],1)
```

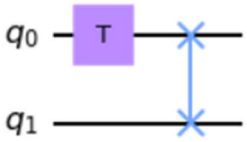
a)



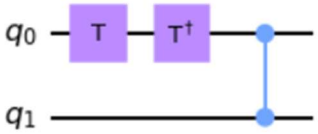

b)




c)



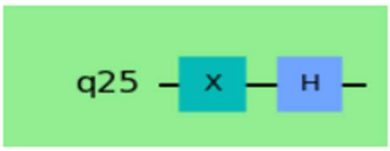

d)




**5) Which one of the following images is produced when the given code is executed?**

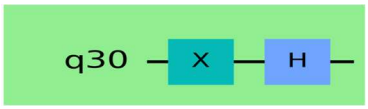
```
q = QuantumRegister(1)
qc = QuantumCircuit(q)
qc.x(q[0])
qc.h(q[0])
style = {'backgroundcolor': 'lightgreen'}
qc.draw(output='mpl', style=style, scale=3.5, plot_barriers=False, reverse_bits=False)
```

a)

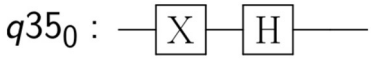



b)

c)



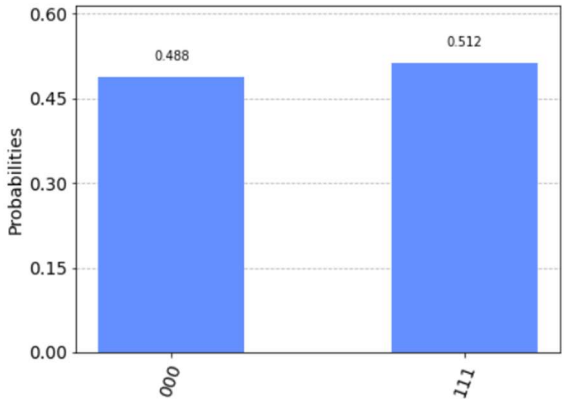

d)



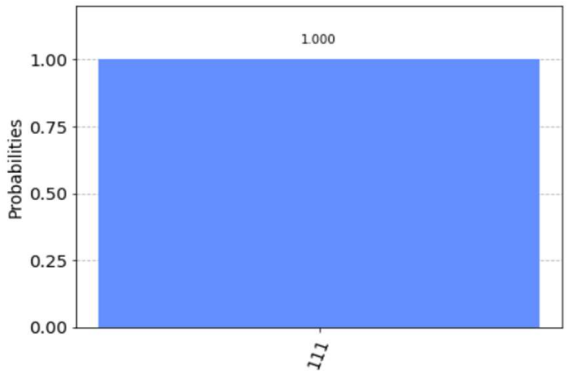

**6) select the correct histogram result from the options given below, when the given code is executed.**

```
qc = QuantumCircuit(3,3)
qc.h(0)
qc.cx(0,1)
qc.cx(0,2)
qc.measure([0,1,2],[0,1,2])
```

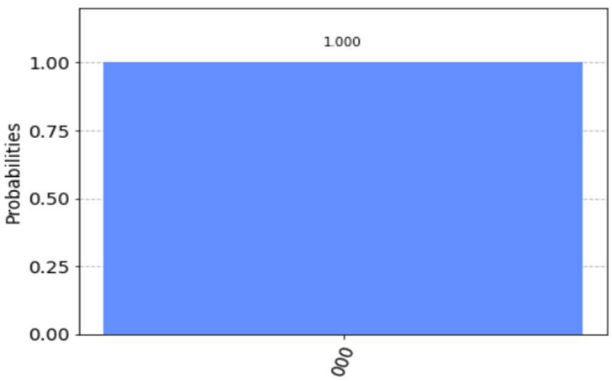
a)



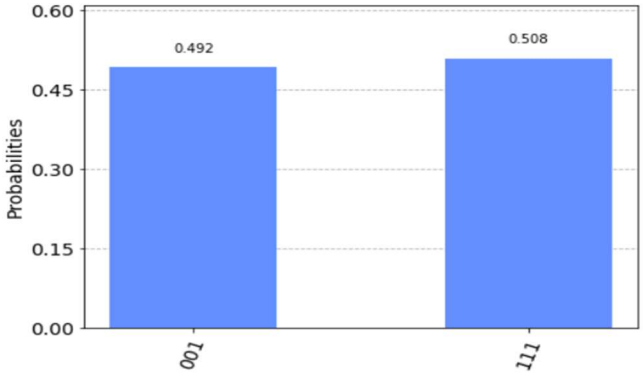

b)




c)



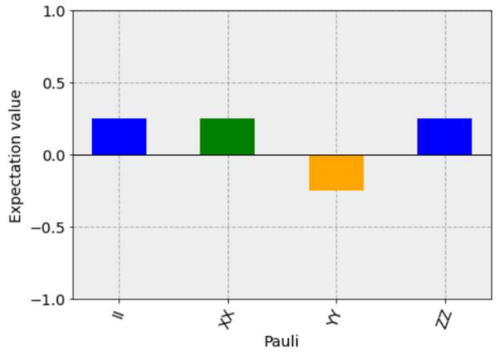
d)



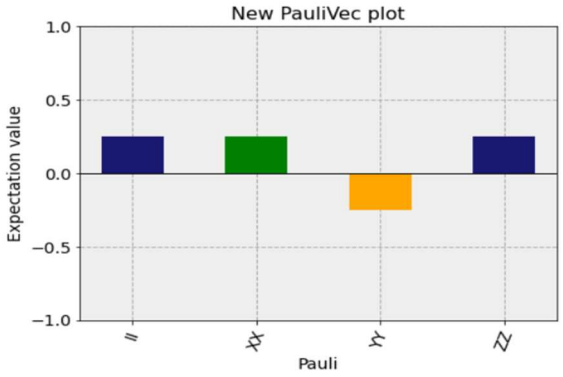

**7) Choose the correct pauli vector for the code given below.**

```
qc = QuantumCircuit(2)
qc.h(0)
qc.cx(0, 1)
state = Statevector.from_instruction(qc)
plot_state_paulivec(state, color=['midnightblue','green','orange'],title="New PauliVec plot")
```

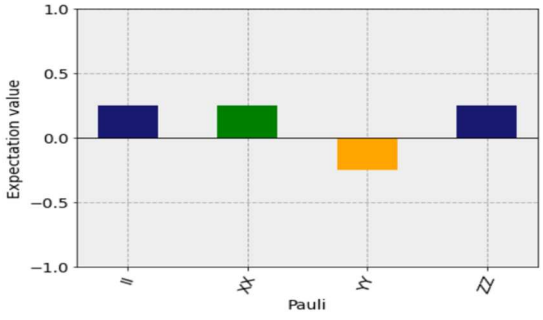
a)



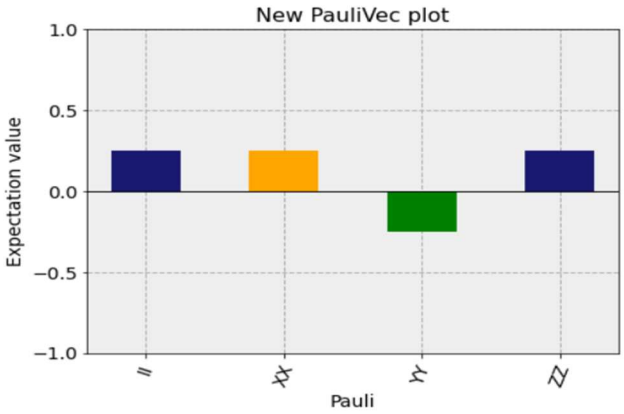

b)




c)



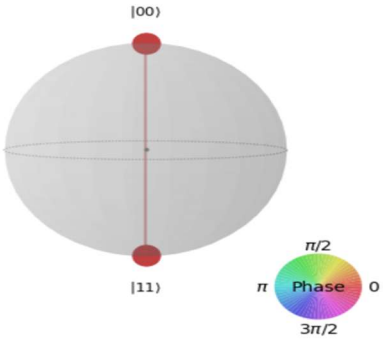
d)



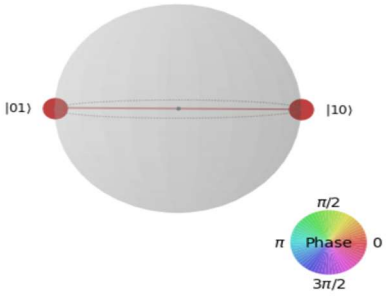

**8) Which one among the given images below is the correct qsphere of the given code below.**

```
qc = QuantumCircuit(2)
qc.h(0)
qc.cx(0,1)
qc.x(1)
```

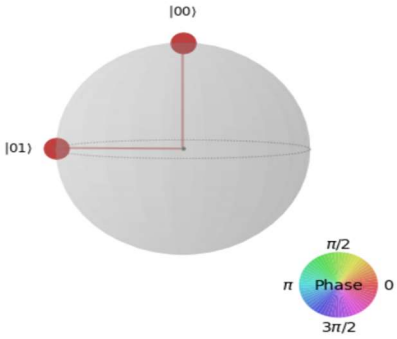
a)




b)

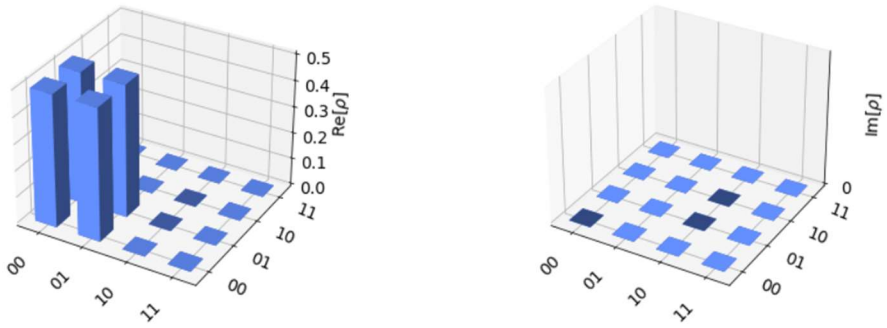



c)



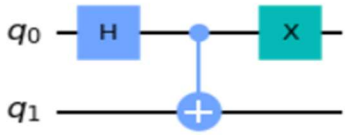

d) None of the above

**9) Which one of the following circuits when executed gives the given plot city which is given below.**



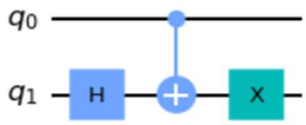

a)


b)

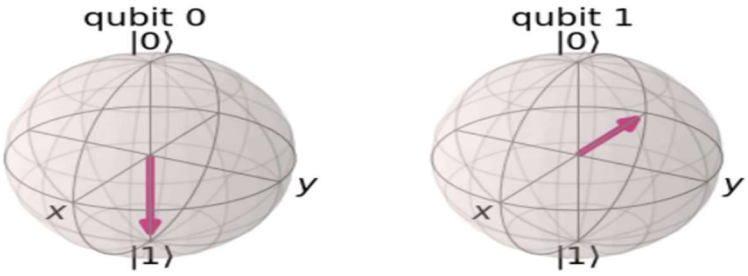



c)


d)




**10) Which one of the following circuits when executed gives the given plot bloch vector which is given below.**

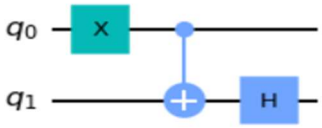



a)


b)


c)


d)




## SOLUTIONS

1) A
2) D
3) A
4) A
5) A
6) A
7) B
8) B
9) A
10) D