IBM

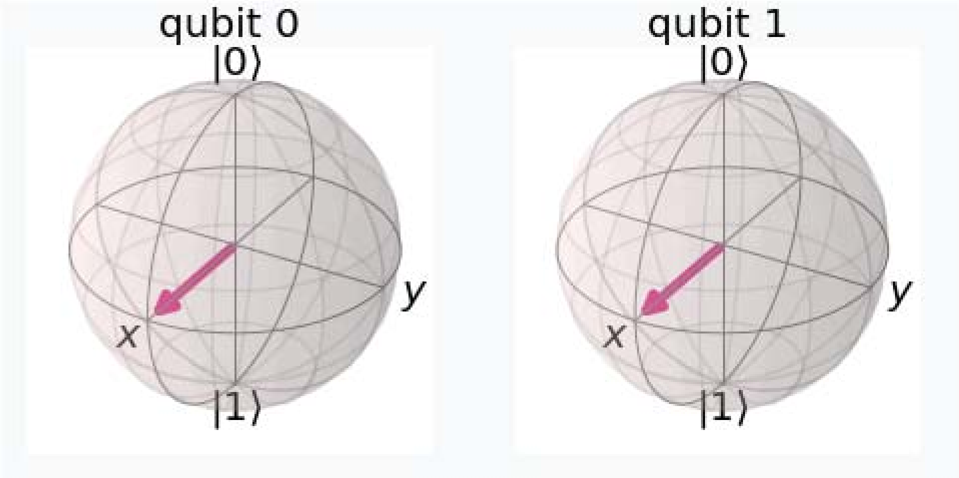
C1000-112
Fundamentals of Quantum Computation Using Qiskit v0.2X Developer

Latest Version: 6.0

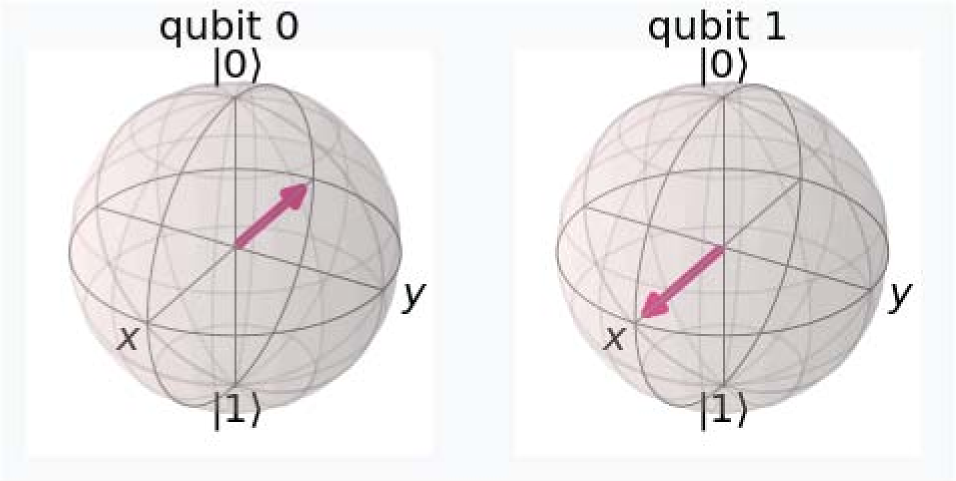
Question: 1

Which of the following bloch_multivector plot options given below is the correct one for the given bell quantum circuit?
bell = QuantumCircuit(2)
bell.h(0)
bell.cx(0,1)
Response:

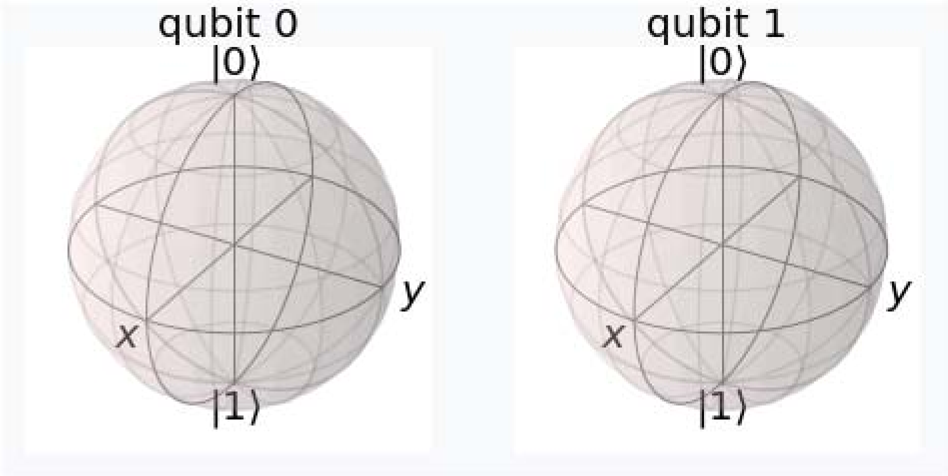
A.



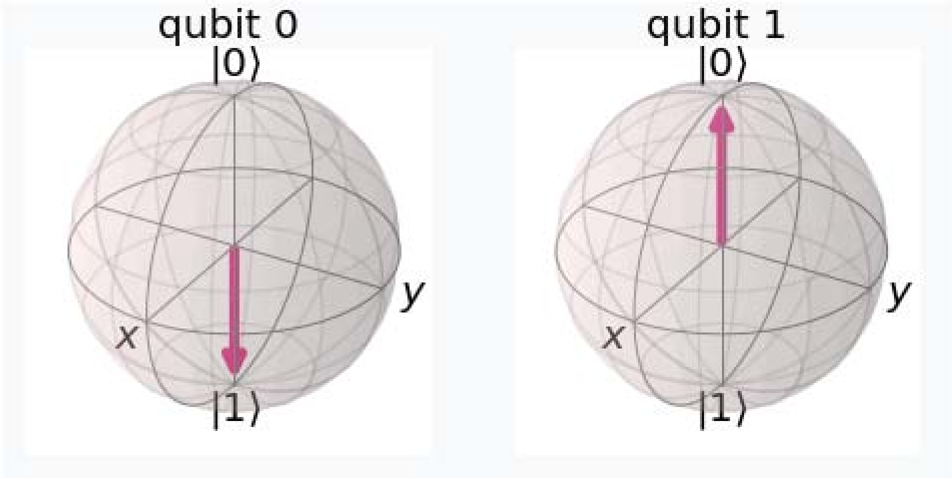
B.



C.



D.



Answer: C

Question: 2

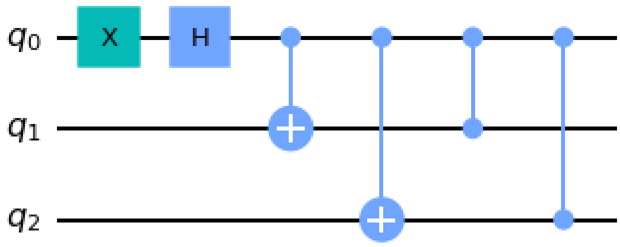
Gates X, Y, and Z perform rotations on a Bloch sphere around the x-, y- and z-axis, respectively. By which angle are these rotations performed?
Response:

A. π
B. π/4
C. 3π/4
D. π/8

Answer: A

Question: 3

What is the depth of the below quantum circuit?



Response:

A. 4
B. 5
C. 6
D. 3

Answer: C

Question: 4

which of the following simulator can be as good as real IBM Quantum computer?
Response:

A. qasm_simulator
B. real_quantum_simulator
C. statevector_simulator
D. unitary_simulator

Answer: A

Question: 5

What is the output of the given state in qiskit after applying CNOT to it?
1/√2|00> + 1/2|10> - 1/2|11>
Response:

A. 1/√2|00> + 1/2|11> - 1/2|10>
B. 1/√2|00> + 1/2|10> - 1/2|11>
C. 1/√2|01> + 1/2|01> - 1/2|11>

D. 1/√2|00>

Answer: A

Question: 6

which of the following quantum circuits will produce a bell state (maximum entangled state)?
(select any 3)
Response:

A.

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

B.

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

C.

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

D.

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

E.

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

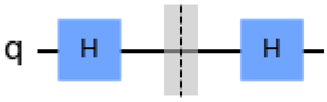
F.

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

Answer: ABC

Question: 7

What is barrier instruction between the H-gates in the below quantum circuit do?



Response:

A. It joins both H-gates and executes them.
B. It won't simplify the circuit between the two H-gates
C. It is used for better circuit visualization
D. It is used for circuit optimization

Answer: B

Question: 8

Given the following code, what is the depth of the circuit?

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

Response:

A. 2
B. 3
C. 4
D. 5

Answer: A

Question: 9

Which statement continues parsing filename as if the contents of the file were inserted at the location of the statement?
Response:

A. statement: begin "filename";

B. statement: include "filename";
C. statement: qasm_parser "filename";
D. statement: compile "filename";

Answer: B

Question: 10

Which two options would place a barrier across all qubits to the QuantumCircuit below?
qc = QuantumCircuit(3,3)
Response:

A. qc.barrier(qc)
B. qc.barrier([0,1,2])
C. qc.barrier()
D. qc.barrier(3)
E. qc.barrier_all()

Answer: BC

Question: 11

Which of the following statement prints the qiskit version?
Response:

A.

```
import qiskit
print(qiskit.__version__)
```

B.

```
import qiskit
print(qiskit.__qiskit_version__)
```

C.

```
import qiskit
print(qiskit.version())
```

D.

```
import qiskit
print(qiskit_version_display())
```

Answer: B

Question: 12

What is the output of the below snippet?

```
a = 1/np.sqrt(2)
desired_state = [a,np.sqrt(1-a**2)]
qc = QuantumCircuit(1)
qc.initialize(desired_state,0)
back_sv = BasicAer.get_backend('statevector_simulator')
result = execute(qc, back_sv).result()
qc_sv = result.get_statevector(qc)
state_fidelity(desired_state, qc_sv)
```

Response:

A. 0.5
B. Error in executing state_fidelity
C. 0
D. 1.0

Answer: D

Thank You for Trying Our Product

Discount Coupon Code is: 20OFF2022

Email: support@examsempire.com

Check our Customer Testimonials and ratings available on every product page.

Visit our website.

https://examsempire.com/