Quantum Computation and

Quantum Information Processing

RECAP on Bell States 25.04.2019

STOP training based upon Umesh Vaziranis video *24 Bell State Circuits*

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* 0:39 – Why this
* Understand:
* Do not understand:
* 0:43 – Why this – meaning of the square
* Understand:
* Do not understand:
* 1:18 What does the mathematical expression describes
* Understand:
* Do not understand:

* 1:43 What do we call this state PHI plus l00>
* Understand:
* Do not understand:
* 2:58 What happens here ? PSI plus l01>
* Understand:
* Do not understand:

* 3:57 What happens here ? PHI minus l10>
* Understand:
* Do not understand:
* 4:36 What is this states also called l11>
* Understand:
* Do not understand:

* 4:36 What is this states also called
* Understand:
* Do not understand:
* 4:57 What do we call the 4 states
* Understand:
* Do not understand:
* 5:03 What do we mean by orthonormal
* Understand:
* Do not understand:

5:10 How do we check that they are orthonrmal

* Understand:
* Do not understand:
* 5:35 What is a unitary transformation
* Understand:
* Do not understand:
* 5:39 What are unitary gates
* Understand:
* Do not understand:
* 5:43 Why does unitary transformations preserve angles
* Understand:
* Do not understand: