Jashore University of Science and Technology
Department of Physics
Bachelor of Science with Honours in Physics
1st semester of 3rd year

Course no.: PHY 3103   Course title: Quantum Mechanics I
Class test no.: 02   Date: April 02, 2023

Roll:

1. What is meant by Linear operator and Hermitian operator? Write down the properties of a Hermitian operator [6]

2. Prove that the product of two Hermitian operator is a Hermitian operator if they commute. [4]

3. Write down the properties of commutator. Show that $[\hat{x}, \hat{p}_x] = i\hbar$. [10]