Department of Physics

University of Rajasthan

Advanced Quantum Mechanics (Code: PHY 901)

Assigned: 30 August 2019 <u>2nd Home Assignment</u> Due: 7 September 2019

- Q 1. Calculate the 1σ , 3σ and 5σ coverage in Gaussian distribution. You have to calculate the ratio of area covered between 1σ and total area. Similarly you have to repeat it for 3σ and 5σ . These are some standard values.
- Q 2. Prove that standard deviation of Poisson distribution is square root of mean.
- Q 3. What do you understand by convolution of two or more functions? Explain it using geometrical and function form of functions. Give some examples to justify convolution in physics.