SEMESTER-V HONOURS EXAMINATION '2020 SUBJECT: PHSA PAPER:CC-11-P

FM-30

1. Write a python script to calculate the energy eigenvalues of a particle subjected to finite potential well. Also use matplotlib to plot the eigenfunctions. Take the strength parameter $\gamma=5$

15

2.Apply shooting algorithm to compute the eigenfunctions of a linear harmonic oscillator for n=0,1,2,3,4. Plot the eigenfunctions using matplotlib.

15