According to Professor Gustavo:

## 1 Q1

For  $\nu(x, dy)$ , we could neglect x, just see it as  $\nu(dy)$ 

And we have:

$$\nu(dy) = \lambda f(y)dy$$

f(y) is the density(pdf) of y.

In the notes of Table 2: Comparing the second factor the last four equations with  $G_J f(x)$  in the upper left corner on Page 544, we notice that:

$$y = e^{y'} - 1$$

where y' is the y in Table 2.

In this way, assume that the pdf of y is f(y), and the pdf of y' is g(y'), then we have:

$$f(y) = e^{g(y)} - 1$$

where g(y) is given in the notes of Table 2.

## 2 Q2

For the upper and lower bounds of the integral in  $\Lambda_J$ , we can just draw a random variable from a uniform distribution with the range of  $(\frac{x_j}{x_i} - 1, \frac{x_{j+1}}{i} - 1)$ .