Answer to the question no: 1:

If we don’t consider burn in and stride the sampler does not really converge. For some iterations, Most of the topic shows the same words.

Answer to the question no: 2:

Yes. There has effect of burn in. If we take samples when they reach in steady state or stationary distribution then the topic contains the true words. By allowing burn in, we can take sample after reaching steady state.

Answer to the question no: 3

Yes, there has effect of stride/lag. The samples are correlated with each other. But we want samples so that there is no correlation with each other i.e. they are independent. Stride/lag helps to break this correlation.