
Let us consider the Beta distribution (with parameters $\alpha_1, \alpha_2 > 0$).

1. Now choose five different sets of values (α_1, α_2) with $\alpha_1, \alpha_2 \geq 1$ and the condition that at least one of values of α_1 and α_2 are greater than 1.
2. For each of the values of (α_1 and α_2) evaluate the point $x^* = \dfrac{\alpha_1 - 1}{\alpha_1 + \alpha_2 - 2}$ at which $f(x)$ attains its maximum.
3. Hence find the value of $f(x)$ at this point and store it as c, *i.e.,* $f(x^*) = c$ and $f(x) \leq c$, $\forall\ x$.
4. Now use the acceptance rejection method to generate values from the Beta distribution for your chosen values of α_1 and α_2.
5. Finally plot the histogram of values that you have generated in the preceding step for all your choices of α_1 and α_2.

Submission Deadline: 31st January 2019, 11:59 PM