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A block placed on a rough horizontal surface is pulled by a horizontal force  $F$ . Let  $f$  be the force applied by the rough surface on the block. Plot a graph of  $f$  vs  $F$ .

Ans:- For the smaller values of the applied force the frictional force increases linearly upto the limiting friction as shown in the graph below. After crossing the maximum point of the static friction the frictional force becomes constant and does not change due to kinetic friction.

