6.FRICTION

Friction force is of two types.

(a)   Kinetic   (b)   Static

KINETIC FRICTION : $f_k = \mu_k N$

The proportionality constant μ_k is called the coefficient of kinetic friction and its value depends on the nature of the two surfaces in contact.

STATIC FRICTION :

It exists between the two surfaces when there is tendency of relative motion but no relative motion along the two contact surfaces.

This means static friction is a variable and self adjusting force. However it has a maximum value called limiting friction.

$$f_{max} = \mu_s N$$

$$0 \quad f_s \quad f_{smax}$$