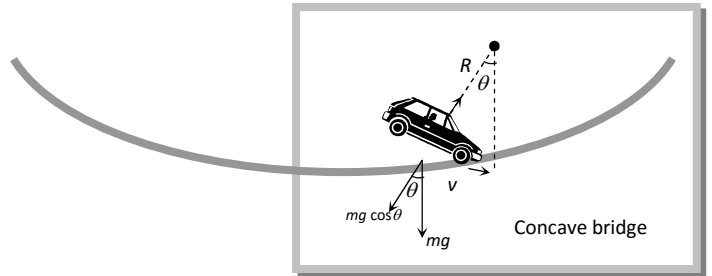


Reaction of Road on Car.

(1) When car moves on a concave bridge then

$$\text{Centripetal force} = R - mg \cos \theta = \frac{mv^2}{r}$$

$$\text{and reaction } R = mg \cos \theta + \frac{mv^2}{r}$$



(2) When car moves on a convex bridge

$$\text{Centripetal force} = mg \cos \theta - R = \frac{mv^2}{r}$$

$$\text{and reaction } R = mg \cos \theta - \frac{mv^2}{r}$$

