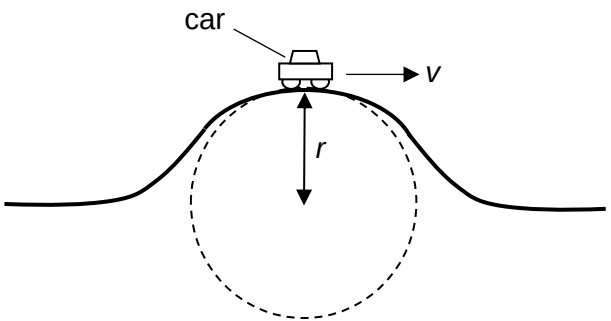
11 A car of mass m moving at a constant speed v passes over a humpback bridge of radius of curvature r.

Given that the car remains in contact with the road, what is the normal reaction force R experienced by the car when it is at the top of the bridge?



A $R = mg + \frac{mv^2}{r}$

B $R = mg - \frac{mv^2}{r}$

C $R = \frac{mv^2}{r} - mg$

D $R = \frac{mv^2}{r}$