Difference between Short Run and Long Run Production Function

Basis of Difference	Short-Run Production Function	Long-Run Production Function
Meaning	It defines the functional relationship between inputs and output of a commodity for a short period of time.	It defines the functional relationship between inputs and output of a commodity for a longer period of time.
Also known as	It is also known as Variable proportion type of production function.	It is also known as a fixed proportion type of production function.
Capital-Labour Ratio	In this, the capital-labour ratio changes with the change in output.	In this, the capital-labour ratio doesn't change with the change in output.
Related Law	The law of returns to a factor is applied for this function.	The law of returns to a scale is applied for this function.
Curve	The curve of the short-run production function is parallel to the horizontal axis.	The curve of the long-run production function is upward sloping.
Fixed and Variable Factors	Here, the capital is assumed as the fixed factor and labour as a variable factor.	Here, all the factors of production are variable factors.
Scale of Production	There is no change in the scale of production in the short run.	Here, The scale of production is always changed with a change in output.
Entry and Exit of Firms	In this, there are barriers for firms to enter and to shut down but cant exit.	In this, the firms are free to enter and exit the market.