C = price of call option
P = price of put option

Portfolio A

	$S(T) \geq K$	$S(T) < K$
C	$S(T) - K$	0
-P	0	$-(K - S(T))$ $= S(T) - K$
	$S(T) - K$	$S(T) - K$

$- Ke^{-rT}$

Portfolio B

S_0	$S(T) \geq K$	$S(T) < K$
S_0	$S(T)$ $- K$	$S(T)$ $- K$
	$S(T) - K$	$S(T) - K$

Since for both portfolio / payoff is same in both conditions to prevent arbitrage the value of both portfolio should be same i.e

$$C - P = S_0 - Ke^{-rT}$$

Thus put call parity.