A. A short position in a cash-or-nothing put option plus a long position in an asset-or-nothing put option
B. A long position in an asset-or-nothing put option plus a long position in a cash-or-nothing put option
C. A long position in an asset-or-nothing call option plus a long position in a cash-or-nothing call option
D. A long position in an asset-or-nothing call option plus a short position in a cash-or-nothing call option

Answer: D

A long position in a European call is equivalent to a long position in an asset-or-nothing call option (this is worth $S_0N(d_1)$) and a short position in a cash-or-nothing call option (this is worth $-Ke^{-rT}N(d_2)$)

9. Which of the following is equivalent to a short position in a European put option?
   A. A short position in a cash-or-nothing put option plus a long position in an asset-or-nothing put option
   B. A long position in an asset-or-nothing put option plus a long position in a cash-or-nothing put option
   C. A long position in an asset-or-nothing call option plus a long position in a cash-or-nothing call option
   D. A long position in an asset-or-nothing call option plus a short position in a cash-or-nothing call option

Answer: A

A short position in a European put is equivalent to a short cash-or-nothing put option $(-KN(-d_2)e^{-rT})$ and a long position in an asset-or-nothing put $(S_0N(-d_1))$

10. Which of the following describes a cliquet option
   A. An option to exchange one asset for another
   B. An instrument when the holder can choose between several alternative options
   C. An option on an option with predetermined strike prices for the two options
   D. A series of options with rules for determining strike prices

Answer: D

A cliquet option is a series of options where there are rules for determining strike prices. For example, there could be a series of one-year options where the strike price for each option is the asset price at the beginning of its life.