

# H0X`]W\ Yf`K YgdYbgh]W\ .`F UXZU\ fYf`gh]fVh VY]`5i gZi [ `]a `@UbX\_fY]g`6UX`H0`n

9]b`F UXZU\ fYf`ghUfV`bUW\`Y]bYa`K YgdYbgh]W\`k A\ fYbX  
Y]bYf`Hci f`]a `@UbX\_fY]g`6UX`H0`n" Hfchn`gW\ bY`Yf`<`]ZY  
\_cbbhY`XYf`\*`\*!`A\ f][`Y`b]W\ h[`YfYhhY`h`k`YfXYb"

9]b`5i gZi [ `]bg`; f0bY`\_Ubb`cZi`Y]b`YbhgdUbbYbXYg`9f`YVb]g`gY]bž  
XcW\`]b`Y]bYa`hfU[ `]gW\Yb`JcfZU``]a `@UbX\_fY]g`6UX`H0`n`  
K`c`ZfUhg\Ui`gYb`bU\`a`Y]b`gc`W\Yf`5i gZi [ `Y]b`Y`gW\ fYW`\_]W\ Y  
K`YbXi b[ ``6Y]`Y]bYf`:`U\ffUXhci f`YbhUb[ `XYg`gUffUXk`Y[ `g`Yf`]hh  
Y]b`\*`\*!`A\ f][`Yf`A`Ubb`Ui`g`XYa`@UbX\_fY]g`FcgYb`Y]a`Y]bYb  
U`Yf[ `]gW\Yb`GW\cW`\_bUW\`Y]bYa`K YgdYbgh]W\`i`bX`j`YfghUfV`j`cf  
Cfh`9]b`gc`W\Yf`JcfZU``k`]fZi`b]W\ h`bi`f`:`fU[`Yb`0VYf`5`Yf[ `]Yb`i`bX  
]\fY`:`YZU\ fYb`Ui`Z`gcbXYfb`Vf]b[ `h`Ui`W\`X]Y`F]g]\_Yb`a`]h]g]W\ ž`X]Y  
gY`Vgh]b`gW\Y]bVUf`\`Ufa`cgYb`A`ca`YbhYb`Ui`Yfb`\_0bbYb"

8Yf`A`Ubb`k`Uf`ni`gUa`a`Yb`a`]h]gY]bYa`6fi`XYf`i`bhYfk`Y[ `gž`U`g`Yf  
d`0hn`]W\`j`cb`Y]bYf`K`YgdY`[`YghcW\Yb`k`i`fXY`Y]b`A`ca`Ybh`XYf  
I`bUW\hgUa`\_Y]hž`XYf`ZU`h`Y`:`c`[`Yb`U`h`h`Y`"8Yf`Gh]W\ ž`XYf`]a  
5``[`Ya`Y]bYb`\_Y]bY`Yfbgh\`UZhYb`DfcV`Ya`Y`j`Yfi`fgUW\hž`Yfk`]Yg`g]W\  
Z0f`XYb`\*`\*!`A\ f][`Yb`U`g`YVYbgVYXfc`\`]W\`"Ni`b`A`W\gh`k`i`fXY`Yf`j`cb  
5hYa`bch[ `Yd`U[ `hž`Y]b`5`Ufa`nY]W\Ybž`XUg`Ui`ZY]bY`Yfbgh\`UZhY  
U`Yf[ `]gW\Y`F`YU`\_h]cb`\`]bXYi`hYhY"

## 8YhU]`g`XYg`JcfZU``g`i`bX`9fghY!<`]ZY! A`U»`bU\`a`Yb

8]Y`Dc`nY]`VYf]W\hYhYž`XUgg`XYf`JcfZU``Ua`[`Yghf][`Yb`BUW\`a`]hhU[  
ghUhhZUbX`"Hfchn`gcZcfh][`Yf`9fghY!<`]ZY!A`U»`bU\`a`Yb`i`bX  
F`YU]b]a`Uh]cb`Xi`fW\`Y]bYb`BchUfnhž`\_cbbhY`X]Y`a`YX]n]b]gW\Y  
`bhYfj`Ybh]cb`b]W\hifYW\hY]h][`[`Ybi`[`k`]f`\_Ybž`i`a`XUg`@YVYb`XYg

F UXZU\ fYfg'ni 'fYhhYb" 'GY]b' HcX'\ Uh'X]Y'; Ya Y]bgWUZh'i bX'X]Y  
5b[ Y\ Òf][ Yb' ghUf\_ 'VYhfc ZYb"

⊕ Y]bYa 'gc' WYb' GnYbUf]c ]gh'Yg'k ]W h][ ž'XUgg' DYfgc bYb' a ]h  
VY\_UbbhYb' 5''Yf[ ]Yb' ghYhg' J c fg]W h'k U'hYb' 'UggYb' i bX  
[ Y[ YVYbYbZU'g' a ]h'Y]bYa ' 5XfYbU' ]b! 5i hc]b' Y\_ hcf' Ui g[ YghUhhYh  
g]bX" ' 5''Yf[ ]gWY' GWcW\_g' \_ÒbbYb' g]W h' ]b' GY\_i bXYbgW bY''Y  
Yb' h'k ]W\_Y'b' i bX'g]bX'\ Āi Z][ 'i b] c f\ YfgY\ VUf" ' 8 Ug' ZØ\ fh' XUni ž'XUgg  
gY' Vgh' U''hĀ[ ' ]W h' Y' 5\_h]j ]hĀhYbž'k ]Y' F UXZU\ fYb' cXYf' D]W\_b]W\_Ybž'ni  
dchYbn]Y''Yb'; YZU\ fYb' k YfXYb"

: Øf'X]Y' F Yhhi b[ g\_fĀZhY' k i fXY'X]Y' G]hi Uh]cb'ni gĀh' ]W h' YfgW k Yfhž  
XU'Y]b' <i VgW fUi VYf'ni f' a YX]n]b]gW Yb' i bhYfghØhni b[ ''UbXYb  
a i gghY" ' ⊕ Zc' [ YXYggYb' k Uf'X]Y' 6i bXYgghfU» Y' %' ' ZØf' Yhk U'Y]bY  
\ U'VY' Ghi bXY' [ YgdYffh" ' Gc' WY' A U» bU\ a Yb' g]bX' c Zh' b'chk YbX][ ž  
i a 'XYb' DUh]Yb' hYb' gW bY''gha Ò[ ' ]W h' X]Y' VYgha Ò[ ' ]W h' Y  
a YX]n]b]gW Y' J Yfgcf[ i b[ 'ni \_ca a Yb'ni ''UggYb"

8 Yf' J c fZU''Yf]bbYfh'i bg' XUfUbž'k ]Y' k ]W h][ 'Yg' ]ghž'Ui ZX]Y'Y][ YbY  
; Ygi bX\Y]h'ni 'UW hYb" ' 6YgcbXYfg ]b' XYf' Gca a YfnY]hž'k Ybb'X]Y  
BUhi f'j c f' @VYb' gZfYi XY' gdfØ\ hž'gc''hYb' A YbgW Yb' j c fg]W h][ 'gY]b  
i bX' ØVYf' a Ò[ ' ]W h' Y' 5''Yf[ ]Yb' ]bZcfa ]YfhigY]bž'i a ' ja ' BchZU''f]W h][  
\ UbXY'b'ni ' \_ÒbbYb"

8 YhU]`g

6 Ygi W h' Yb' G]Y' i bg' Ui Z. 'X]Y! b UW h' f]W h' Yb" b Yh