

7c]bVUgY ghfYVh'Y]bY; YbY\a][ib[ZØf XYb: i hi fYg! < UbXY`Ub

8 Ugʻl bhYfbY\a Ybʻd`Ubhžʻ±j YghcfYbʻj YfgW\]YXYbYʻ?fmdhc! 8 Yf]j UhYʻUbni V]YhYb"

 $\label{thm:continuous} $7c]bVUgY`fB5G85E.£`\Uh`Y]bYb`5bhfU[`ZØf`XYb`: i hi fYg! < UbXY`[YghY``hž`k Ug`XUfUi Z`\]bXYi hYhž`XUgg`Yg`5b`Y[Yfb?fmdhck À\fi b[gXYf]j UhY`UbV]YhYb`k]fX"$

7c]bVUgYa ÒWkhY?fmdhc!: i hi fYg'j Yf_Ui ZYb

8]Y'6ÒfgY'[UV'\Yi hY'Ui Z'Hk]hhYf'fBMG9.Ł'VY_Ubbhž'XUgg'g]Y'g]W\VY]'XYf'BUh]cbU`: i hi fYg'5ggcW]Uh]cb'U`g': i hi fYg'7ca a]gg]cb A YfW\Ubh'fY[]ghf]Yfh'\Uh"

.

8 Y f 'GhUhi g 'X Y g '5 b hfU[g 'k] f X 'X Y f n Y] h 'U i Z X Y f 'K Y V g] h Y 'X Y f 5 i Zg] W hg V Y \ Ò f X Y 'U `g 'U i ggh Y \ Y b X 'U i Z[Y ZØ \ f h "

NijcfgWX`i['6fYhh'HY'dUi`ž'<YUX'cZ'&gh]hi h]cbU``GU`Ygž'jcfž'XUgg XUg'5b[YVch'XYg'IbhYfbY\aYbg'8Yf]jUhYž':ihifYgž'Cdh]cbYbž GkUdgž'OUbXQghfi_hif]YfhY'DfcXi_hY" 'HY'dUi`'aUWXhY'X]YgY 5iggU[Y'kÀ\fYbX'Y]bYg'&hYfj]Ykg'a]h'XYf'?fmdhc! BUWXf]WXhYbgY]hY'H\Y'6`cW_"

=bj YghcfYb nY][Yb =bhYfYggY

8]Y'BUW\f]W\h'_ca a h'A cbUhY'bUW\'XYf'9bhgW\Y]Xi b['j cb7c]bVUgYž'Ub'X]Y'6ÒfgY'ni '[Y\Ybž'i bX'V]YhYh'hfUX]h]cbY``Yb5b`Y[Yfb'X]Y'A Ò[`]W_Y]hž']b'XUg'I bhYfbY\a Yb'ni ']bj Ygh]YfYb"

9g'_ca a h'Ui W\'bi f'k Yb][Y'HU[Y'bUW\'6Yf]W\hYbž'XUgg'X]Y'\in b_! 6cbXg'j cb'7c]bVUgY'Y]bY'[fc\(\text{y'BUW\ZfU[Y'j YfnY]W\\bYhYbž'U\'g}\)XUg'I bhYfbY\\a Yb'\&'\A]\``]UfXYb'I G!8c\``Uf'GW\i \XYb'j Yf_Ui ZhY''

Hfchn'gY]bYg'9fZc`[g'g]Y\h'g]W\'7c]bVUgY'Ui W\'a]h'a Ò[`]W\Yb A U» bU\a Yb'XYf'I G!6ÒfgYbUi Zg]W\hgVY\ÒfXY'G97'_cbZfcbh]Yfh" 8]Y'FY[i`]Yfi b[gVY\ÒfXY'\Uh'[YXfc\hž'X]Y'6ÒfgY'k Y[Yb']\fYg GhUV`YWc]b!?fYX]hX]YbghYg'ni 'j Yf_`U[Yb"

9g'V`Y]Vh'UVni k UfhYbž'cV'7c]bVUgY'X]Y'FY[Y`b'fi bX'i a 'XYb: i hi fYg!<UbXY`'YZZY_h]j Yf'Ui g\UbXY`b'_Ubb"

7c]bVUgY`]gh'XYfnY]h'X]Y`nk Y]h[fÒ» hY`?fmdhck À\fi b[gVÒfgY`bUW\ Jc`i a Yb'i bX'a Y`XYhY'Ua 'j Yf[Ub[YbYb'HU['Y]b'Jc`i a Yb'j cb (ž('A]``]UfXYb'I G!8c``Uf"

8YhU]`g

6 Ygi WX Yb 'G]Y 'i bg 'Ui Z. '_fmd hc!bYk g"Uh