

## 5i hc ZU\fYf'i bhYf'8fc[YbY]bZ`i gg. JYf\_Y\fgXY`]\_hY']b': Y``VUW\'i bX K U]V`]b[Yb

8]YVghÀ\`Y'i bX'l bZÀ``Y']a 'FYa g!A i ff!?fY]g. '5i hcZU\fYf i bhYf'8fc[YbY]bZi ggž: U\ffUXX]YVghU\`ž'6Uf[Y`X'Ui g'5i hc Ybhk YbXYh'!'U``Y'8YhU]`g'\]Yf"'5U`Yb'Dc`]nY]"

# : U\ffUXX]YVghU\`ibX`5ihcZU\fYf`ibhYf 8fc[YbY]bZ`igg`]a `FYag!Aiff!?fY]g

⇒a 'F Ya g!A i ff!?fY]g'\UVYb'g]W\']b'XYb'`YhnhYb'HU[Yb'Y]b][Y JcfZÀ``Y'YfY][bYhž'X]Y'`C\_U`Y'Dc`]nY]'VYgW\ÀZh][Yb"'9]b 8]YVghU\``Y]bYg'\cW\kYfh][Yb'DYXY`YWg'gck]Y'Y]b'5i hcZU\fYfž'XYf i bhYf'8fc[YbY]bZi gg'ghUbXž'g]bX'bi f'Y]b][Y'XYf'; YgW\Y\b]ggYž X]Y'ZØf'5i ZgY\Yb'gcf[Yb"

#### 6Uf[YXYbhkYbXYh]bKY`nY]a

9]b VYgcbXYfg XfY]ghYf 8]YVghU\`YfY][ bYhY g]W\`]a < ]fgW\\_Y`Yfk Y[ ']b K Y`n\Y]a ž'k c 'Ui g'Y]bYa 'i bj YfgW\`cggYbYa 5i hc '6Uf[ Y`X ]a 'K Yfh'j cb 'a Y\fYfYb \i bXYfh'9i fc 'Ybhk YbXYh k i fXY"'Ni XYa 'k i fXYb '6Ub\_\_UfhYb 'Ybhk YbXYhž'X]Y 'a i ha U»`]W\ ZØf']``Y[ U`Y 'HfUbgU\_h]cbYb [ Ybi hnh'k i fXYb" 8]Y 'Dc`]nY]'V]hhYh'i a < ]bk Y]gY 'i bhYf 'XYf 'HY`YZcbbi a a Yf \$+%, &# &, %\$"

## : U\ffUXX]YVghU\``]b`XYf`GYVUgh]Ub!6UW\! GhfU»Y

 $\pm 0.XYf^*GYVUgh]Ub!6UW^!GhfU^*Y^!b^*:Y^*VUW^*kifXY^*Y]b^*\cW^kYfh][YgDYXY^YWXYf^AUf_Y^MH! \\ \pm 0.Xighf]Ygž^AcXY^*8YWcm^6UgY^&-ž$ 

[Yghc\`Yb"8YfK Yfh'XYg': U\ffUXg'VY`Ài Zh'g]WX 'Ui Z'WU"'((\$\$'9i fc"8]Y'Dc`]nY]'V]hhYh'NYi [Ybž'X]Y'<]bk Y]gY'ni f'5i Z\_`Àfi b['XYg8]YVghU\`g'[YVYb'\_ÒbbYbž'g]WX'i bhYf'XYf'HY`YZcbbi a a Yf\$+%\#) ++&\$'ni 'a Y`XYb"

### 5i hc ZU\fYf'i bhYf'8fc[YbY]bZ'i gg'[Yghcddh

 $6Y] `Y] b Y f` Dc`] n Y] \_cbhfc``Y` Ui Z` X Y f`@`%%- +`< O`\Y` H Y bb`\cZ'k i f X Y`Y] b ) \&! `A`\f] [ Y f`5 i X]!: U\ f Y f`i bh Y f`8 f c [ Y b Y] b Z i gg`Z Y gh [ Y gh Y``h" 8 Y f : U\ f Y f`k i f X Y`X] Y`K Y] h Y f Z U\ f h i bh Y f g U [ h z` X U`Y f`b] W\ h`a Y\ f Z U\ f h Ø W\ h] [ `k Uf"` Ni g A`hn`] W\ `gh Y``h Y`g] W\ `\ Y f Ui g z` X U gg` X Y f 5 i h c Z U\ f Y f`_Y] b Y`[ Ø`h] [ Y`: U\ f Y f`Ui V b] g` V Y g U \rightarrow z`k Ug`ni f`9] b`Y] h i b [ Y] b Y g`Gh f U Z Y f Z U\ f Y b g` Z Ø \ f h Y "`9] b Y`6`i h i b h Y f g i W\ i b [ `k i f X Y X i f W\ [ Y Z Ø \ f h z`i a `X Y b` [ Y b U i Y b`8 f c [ Y b \_cbg i a `Z Y g h n i g h Y``Y b" \rightarrow Y b "$ 

#### 5i ZZU\fi bZU```]b K U]V`]b[Yb

9]bY'l bUWX hgUa \_Y]h'ZØ\fhY'Ui Z'XYf'6&-']b'F]WX hi b['5U`Yb'ni Y]bYa '5i ZZU\fi bZU``ž'VY]'XYa 'Y]b', &! 'À\f][Yf'CdY`!: U\fYf'XYb K U[Yb'Y]bYg'''!:\A\f][Yb'\]bhYb'Ui Z[YZU\fYb']gh"'6Y]XY': U\fYf k i fXYb'j Yf'Yhnhž'k cVY]'XYf'À`hYfY': U\fYf']bg'?fUb\_Yb\Ui g [YVfUWX h'k YfXYb'a i gghY"'8Yf'YbhghUbXYbY'GUWX gWX UXYb'VY`Ài Zh g]WX'Ui Z'fi bX'\*\$\$\$'9i fc"

: Øf'k Y]hYfY' ±bZcfa Uh]cbYb'i bX'F ØW\_ZfU[Yb'ghY\h'XUg Dc`]nY]dfÀg]X]i a '5U`Yb'i bhYf'XYf'HY`YZcbbi a a Yf'\$+' \*%'), \$!%\$) ni f'J YfZØ[i b['cXYf'dYf'9!A U]'i bhYf 5U`Yb"dd"ghg"cY4 dc`]nY]"Vk `"XY"

B 5;

8 Y hU1`a