

BYI c!Hi fVi `YbnYb'j Yfi fgUW Yb GdUbbi b[Yb']a 'Vi `[Uf]gW Yb'DUf`Ua Ybh

8 Yf'G_UbXU`i a 'X]Y'?fmdhck À\fi b[g!@Y]\d`UhhZcfa 'BYI c'\Uh Y]bYb'a Ugg]j Yb'K cfh[YZYW\h'nk]gW\Yb'XYb'ZØ\fYbXYb'dc`]h]gW\Yb DUfhY]Yb']b'6i`[Uf]Yb'Ui g[Y`Ògh"; 9F6'fK]Y'DUfhY]ž'X]Y'nk]gW\Yb &\$\$-'i bX'&\$&%'fY[]YfhYŁ'VY\Ui dhYhYž'XUgg'XUg'8Ya c_fUh]gW\Y 6i`[Uf]Yb'i bX'K Y'7cbh]bi Y'h\Y'7\Ub[Y'Yb[Y'6Yn]Y\i b[Yb'ni XYa 'bch'Y]XYbXYb'I bhYfbY\a Yb'i bhYf\U`hYb'i bX'gc[Uf Yf\YV`]W\Y'GdYbXYb'j cb']\a 'Yf\U`hYb'\ÀhhYb"

a ; Y[YbhY]`z`nU\`fY]W\Y`5V[YcfXbYhY`VY\UidhYhYbz`A]h[`]YXYfjcb; 9F6`\AhhYb`gc`W\Y`5b[f]ZZY`UVg]W\h`]W\`[Y[Yb']\fY`F]jU`Yb[YghUfhYhz`ia 'g]Y`XUfUb'ni '\]bXYfbz`Y]bY`Uah]YfYbXY`FY[]Yfib[ni 'V]`XYb"

BYI c 'gW UZZh'f]Yg][Yg '8 fUa U ']b '6i `[Uf]Yb

8]Y'D`UhhZcfa ž'X]Y'Yg'6Ybi hnYfb'Yfa Ò[`]W\hž'N]bgYb'Ui Z?fmdhcY]b`U[Yb'ni 'j YfX]YbYbž'\UhhY'Y]bYb'\UfhYb'GhUfh']b'XUg \\\fž'bUW\XYa'X]Y'Vi `[Uf]gW\Yb'6Y\ÒfXYb']\fY'`c_U`Yb'6Øfcg Xi fW\gi W\h'\UhhYb"8]Y'CdYfUh]cb'k Uf'HY]`'Y]bYf'I bhYfgi W\ib[a i ha U»`]W\Yf'GhYi YfghfUZhUhYb'i bX'; Y`Xk ÀgW\Y"

8]Y`I bhYfgi Wki b[`Ybhk]W_Y`hY`g]Wk`gWkbY```ni `Y]bYa `XYf <Ui dhh\Ya Yb`]b`XYa `cghYi fcdÀ]gWkYb`@UbXž'k À\fYbX`X]Y ZØ\fYbXYb`dc`]h]gWkYb`DUfhY]Yb`g]Y`ni a `5b`Ugg`bU\a Ybž'g]Wk [Y[YbgY]h][`XUg`5bgY\Yb`ni `gWkUXYb"

6c]_c:6cf]gcj:fDA:XYf:BUh]cb:nk]gWXYb:&\$\$-iibX:&\$&%LiibX
UbXYfY:A]h[:]YXYf:gY]bYf; 9F6!DUfhY]:gU[:hY::ØbZ:A]hUfVY]hYf:jcb
BYIc:gdYbXYhYb:]a:C_hcVYf:&\$&%:YkY]:g:&\$"\$\$\$:6; B:Ub:XUg
8Yac_fUh]gWXY:6i:[:Uf]Yb:fY]bYb:[:fc>Yb:F]j:U:Yb:XYf:Y\YaU:][:Yb
FY[:]Yfi:b[:gcf[:Ub]gUh]cbL":9g:ki:fXY:VY_Ubbhz:XUgg:nkY]:kY]hYfY
A]hUfVY]hYf:XYf:?fmdhc!D:UhhZcfa::X]YgYa::6Y]gd]Y::Zc:[:hYb:iibX:XYb
[:Y]WXYb:6YhfU[::HU[:Y:gdÀhYf:j:YfgWXYb_hYb"

; 9F6'[]b['bcW\'k Y]hYfž'; Y`ØVXY''i a 'ni 'ØVYfdfØZYbž'cV'BYIc'X]Y dc`]h]gW\Y'? Ua dU[bY'j cb' K Y'7cbh]bi Y'h\Y'7\Ub[Y 'fKYf'DUfhY]ž X]Y'X]Y'K U\`Yb'&\$&%'[Yk Ubb'i bX'V]g'\delta b]'`YhnhYb'\d\\fYg'Ub'XYf Gd]hnY'V`]YV\LZ]bUbn]Yfh'\Uh"'6cf]gcj g'Cf[Ub]gUh]cb'i bX'UbXYfY A]h[`]YXYf'XYf'dc`]h]gW\Yb'9`]hY'6i`[Uf]Ybg'VY\Ui dhYhYb'Ui W\ŽXUgg'XYf'Y\Ya U`][Y':]bUbna]b]ghYf'5gYb'JUg]`Yj 'HY]`'XYg']bbYfYb?fY]gYg'j cb'BYIc'k Uf'i bX']a 'BUa Yb'XYg'I bhYfbY\a Ybg\UbXY`hY"

K Ugg]`Yk `gU[hY ```YhnhYg`\$J\fž`XUgg`X]Y`FY[]Yfi b[`Cdh]cbYb i bhYfgi W\h`\Uhž'i a `_i fn! `V]g`a]hhY`Zf]gh][`Y]bYb`?fmdhc!
NU\`i b[ga YW\Ub]ga i g`Y]bni ZØ\fYb"`9f`Ybh\Ø``hYž`XUgg`X]Y
FY[]Yfi b[gVY\ÒfXY`a]h`XYf`NYbhfU`VUb_ii bX
6fUbW\YbU_hYi fYb `ni gUa a YbUfVY]hYb`k]fX`fb\bY`BYI c
VYgcbXYfg`ni `Yfk À\bYbŁ"

FYU_h]cb Ui Z'X]Y J cfk ØfZY

A D? U`]bU?cbghUbh]bck U'[`Ui Vh'8]Y GhUUhgUbk U`hgWk UZh``Y]hYhY X]Y BYI c!I bhYfgi Wki b['[YbUi 'ni 'XYa 'NY]hdi b_h'Y]bž'U`g DfÀg]XYbh'Fi a Yb'FUXYj ']a '6Y[f]ZZ'k Ufž'XYa 'XYa c_fUh]gWkYb 6i `[Uf]Yb'fY]bYa 'Yb[Yb'JYfVØbXYhYb'j cb'K Y'7cbh]bi Y'h\Y 7\Ub[YŁY]b'A UbXUh'ni f'FY[]Yfi b[gV]`Xi b['ni 'YfhY]`Yb'i bX XUa]h; 9F6'Ui g'XYf'; 'Y]Wki b['\YfUi gni `UggYb"

5VYf']WX 'XYb_Yž'X]Y '@Yi hY '_ObbYb'\]bhYf'X]Y : UggUXY 'gY\Ybž'X]Y j ca 'k]WX h][Yb 'H\Ya U'UV`Yb_Yb 'gc``" 'B Àa `]WX 'X]Y '6]`Xi b['Y]bYg ? UV]bYhhg'i bX'X]Y 'DfØZ b['Y]bYg'XYf'k]WX h][ghYb 5bh]_cffi dh]cbg[YgYhnYž'XYg^Yb][Yb 'ni f'?cbhfc``Y'XYg ; YbYfU`ghUUhgUbk U`hg ž'ZØ[hY'g]Y`\]bni "

: Ø\fYf'XYg'XYa c_fUh]gW\Yb'6i `[Uf]Ybg' '< f]ghc'\full Ubcj
'ni [Y`UggYb'XUgg'gY]bY'DUfhY]'GdYbXYb'j cb'BYI c!A]hUfVY]hYfb
Yf\]Y`h"'8 UfUb'g]Y\h'Yf'YXcW\'b]W\hg'Ui gni gYhnYbž'XYbb'X]Y
HfUbgU_h]cbYb'gY]Yb'ÒZZYbh`]W\'fY[]ghf]Yfh'i bX'XYa 'FYW\bi b[g\cZ
[Ya Y`XYh'k cfXYb"'</pre>

8 UgʻVYXYi hYhžʻXYbʻA YbgW\YbžʻX]YʻX]YgYgʻ; Y`Xʻ[Y[YVYbʻ\UVYbž XYfʻ[YgUa hYbʻVi`[Uf]gW\Ybʻ; Ya Y]bgW\UZhžʻX]Yʻ[YgdYbXYhʻ\Uhžʻni gU[YbžʻXUggʻYhk UgʻXUa]hʻb]W\hʻgh]a a h žʻgU[hYʻYf"

j Ubcj 'hY]`hY'X]Y'<U`hi b['j cb'?cbghUbh]bcj Už'XUgg'X]Y
6Ya Ø\i b[Yb'XYf'GhUUhgUbk U`hgW\UZh'[Y[Yb'BYIc'ni a 'f]W\h][Yb
NY]hdi b_h'_Ua Ybž'U`g'XUg'8Ya c_fUh]gW\Y'6i`[Uf]Yb']a '6Y[f]ZZ
k Ufž'X]Y'7\UbW'ni 'Yf\U`hYbž'Y]b'?UV]bYhh'ni 'V]`XYb'i bX
i a ZUggYbXY'≯gh]nfYZcfa Yb'Xi fW\ni gYhnYb.

K]Y [YbUi 'k i fXY 'XYf'8cbbYfghU[']b 'XYf'K cW\Y [Yk À\`hž']b 'XYf X]Y 'Xf]hhY '5a hgnY]h 'UV[Y`Y]ghYh 'k YfXYb 'gc``ž'i bX 'Yg']gh'_`Ufž'XUgg k]f ']b 'XYf'Xf]hhYb '5a hgnY]h 'j Yfgi W\Yb 'k YfXYbž'X]Y ': fU[Y 'XYg GhUhi g'XYg'; YbYfU`ghUUhgUbk U`hg'ni '`ÒgYb" @UggYb 'G]Y '\]Yf'_Y]bY dfcdU[UbX]gh]gW\Y '5i gVYi hi b['Y]bYf'UbgcbghYb 'YW\hYb

K Ug]gha]h5gYb J Ug]`Yj 3

 $8 \ Yf'Y \ Ya \ U`][\ Y : \]b \ Ubna \]b]ghYf' \ UV[\ Y`Y \ bh' X]Y'; \ Yf \ \emptyset W. hY \ \check{z}' X \ Ugg'Yf \ Yb[\ Y '6 Yn]Y \ i b[\ Yb 'ni \ BYI c'i bhYf\]Y`h'i b X 'X \ Ugg'X]Y' D`UhhZcfa 'K Y \ 7 c bh]bi Y'h\ Y'7 \ Ub[\ Y'Z]b \ Ubn]Y``'i bhYfgh \emptyset hnh''5 i W. 'X]Y \ 6 Y \ Ui dhi b[\ Yb \ \check{z}' J \ Ug]`Yj '\ UVY'g]W. 'Ui Z'Y]b Yf'i b VY_Ub bhYb' \ \ \ bgY` j \ YfghY \ W_h \check{z}' k i f X Yb' k] X Yf`Y[h \check{z}' U`g'Yf'j cf' \ \ \ \ i f b U`]ghYb']a 'N Yb h fi a \ X Yf`Vi `[Uf]g W. Yb' < Ui dhgh U Xh' G c Z] U'g d f U W. "$

9f'Ui W\ 'VYgW\ f]YVYb'X]Y'BYI c!GU[U'U`g' 6]['A YX]U'Ga c_Y 'i bX dfc[bcgh]n]YfhYž'XUgg'X]Y'VYgW\ i `X][hYb': \emptyset \ fi b[g_fÀZhY'XYf ?fmdhck À\ fi b[gd`UhhZcfa '6i `[Uf]Yb'k Y[Yb'I bhYf[fUVi b['gY]bYg Fi Zg'j Yf_`U[Yb'_ObbhYb.

 $8]Y YbX[\emptyset h][YK]f_i b[X]YgYf 5_h]cbYb Zk Ug dUgg]YfYb k]fX Zi]gh $$ \langle W ghk U fgW Y]b]W Zi XUgg 6i [Uf]Yb j cb XYbYb j Yfi fhY] hk]fX Zi XYfYb $$ bhYfYggYb [YgW AX][hk i fXYb Zi X]Y X]Y GhUUhgUbk U hgW UZh Ub[fY]Zh Zi bX XUgg k]f Y]bY 9bhgW AX][i b[Ui g XYa < Ui g U h nU Yb a ØqqYb" $$$

BYI c'\Uh'ni j cf'VY\Ui dhYhž'XUgg'X]Y'A U» bU\a Yb'XYf
GhUUhgUbk U'hgW\UZh'[Y[Yb'XUg'; YgYhn'j Yfghc» Ybž'i bX
j YfgdfcW\Ybž'XYb': U'`'j cf'; Yf]W\h'ni 'Vf]b[Yb"
9g'VY\Ui dhYh'XUgg'Yg'U``Y'F]W\h']b]Yb'ni f'6Y_Àa dZi b['XYf
; Y`Xk ÀgW\Y'Y]b[Y\U'hYb'\Uhž'UVYf'Y]b][Y'K UW\\i bXY'\UVYb'XYb
5bgUhn' Ni Yfgh'hfYhYbž': fU[Yb'gdÀhYf'ghY``Yb' ØVYfbca a Yb"

e + n

8 Y hUl`a