

GWX ØggY 'Ui Z'CfXbi b[gUa h. '6Yf`]b ']b GWX cW_ 'bUWX '5b[f]ZZ'Ui Z'6YUa h]b '

9]bY'A]hUfVY]hYf]b'XYg'6Yf`]bYf'CfXbib[gUahYg'kifXYkÀ\fYbX'XYf'5fVY]h']b'XYf'7\UiggYYghfU»Y'Ub[YgWkcggYb"8Yf'JcfZU```gcf[h'ZØf'9bhgYhnYb"

7\Ui ggYYghfU» Yž'%\$%%) '6Yf`]bž'8Yi hgW\`UbX'!'B5; #B5; FYXU_h]cb''

± Y]bYa 'gW\cW_]YfYbXYb'JcfZU``']b'6Yf`]b!A]hhY'k i fXY'Y]bY
A]hUfVY]hYf]b'XYg'CfXbi b[gUa hYg'ni a 'N]Y`'Y]bYg'g_fi dY``cgYb
5b[fY]ZYfg"'K À\fYbX'g]Y'i bX']\f'?c``Y[Y'[YfUXY'Y]bY'5bnY][Y
k Y[Yb'Y]bYg'DUf_gØbXYfg'Ui ZgW\f]YVYbž'Z]Y`Yb'd`Òhn`]W\'ZØbZ
GW\ØggY']b'XYf'7\Ui ggYYghfU» Yž'X]fY_h'Ui Z'<Ò\Y'XYg'9f]_U!<Y»!
9]gghUX]cbg"'; `ØW_`]W\Yfk Y]gY'V`]YVYb'VY]XY'i bj Yf`Yhnhž'XcW\'X]Y
HUh'\Uh'ZØf'9bhgYhnYb'[Ygcf[hž'b]W\h'bi f'i bhYf'XYb'5bk c\bYfbž
gcbXYfb'Ui W\'VY]'XYf'Dc`]nY]"'@Ui h'6Yf`]b'@jj Y'k i fXY'XYf'JcfZU``
Yfgh'Yhnh'ÒZZYbh`]W\ž'cVk c\`'Yf'g]W\'VYfY]hg'Ua '&' "'C_hcVYf
YfY][bYhY"

8]Y'6Yn]f_gVØf[Yfa Y]ghYf]b'GhYZUb]Y'FYa `]b[Yffl fØbYŁ
VYf]W\hYhYž'XUgg'X]Y'6YUa h]b'Y]bYb'GW\a Yfn'Ua 'GW\]YbVY]b
j YfgdØfhYž'k Ug'X]Y'8fUa Uh]_'XYg'J cfZU``g'bi f'j YfghÀf_h'''GcZcfh
U`Ufa]YfhYb'g]Y'X]Y'Dc`]nY]'i bX'VfUW\hYb'g]W\']b'G]W\Yf\Y]h'''8]Y
Dc`]nY]'fØW_hY'gW\bY``ni a 'HUhcfh'Ui gž'_cbbhY''YXcW\'XYb'HÀhYf
b]W\h'Z]bXYb'''9g'k]fX'j Yfa i hYhž'XUgg'X]Y'GW\ØggY'Ui g'Y]bYa
@i ZhXfi W_[YkY\f'UV[YZYi Yfh'k i fXYbž'a Ò[`]W\YfkY]gY'j cb'Y]bYa
bU\Y[Y`Y[YbYb'K c\bV`cW_"'Hfchn'Y]bYf'8i fW\gi W\i b['ZUbXYb
X]Y'6YUa hYb'_Y]bY'<]bk Y]gY'Ui Z'XYb'GW\ØhnYbž'i bX'X]Y'5bnY][Y
k]fX'b]W\h'k Y]hYf'j YfZc`[h''

Dc`]nY]'i bX'; Yk Yf_gWX UZh'nY][Yb'g]WX VYgcf[h

8 | Y F Y U_h|cbYb 'Ui Z'X|YgYb 'J cfZU```g|bX '\YZh|["
6 Y n|f_gVØf[Yfa Y]ghYf]b 'F Ya `]b [Yf 'Ài » YfhY 'g]W\ 'VYgcf[h'ØVYf 'X]Y
ni bY\a YbXY'; Yk U`h'[Y[Yb 'A]hUfVY]hYf]a '5i » YbX]Ybgh"
; Yk U`hUi gVfØW\ Y 'i bX '5 [fYgg]cbYb '[Y[YbØVYf 'i bgYfYb
A]hUfVY]hYf]bbYb 'i bX 'A]hUfVY]hYfb ']a '5i » YbX]Ybghž 'UVYf 'Ui W\ ']b
i bgYfYb '8]Ybgh[YVÀi XYbž 'g]bX 'Xi fW\ 'b]W\ hg 'ni 'hc `Yf]YfYb 'i bX
k YfXYb 'a]h'U``Yb 'i bg 'ni f' J YfZØ[i b['ghY\YbXYb 'A]hhY`b
[YU\bXYh ž'VYhcbhY 'g]Y" '5i W\ 'X]Y'; Yk Yf_gW\ UZh XYf 'Dc`]nY] ']gh
YbhgYhnh'ØVYf X]Y'[Yn]Y`hY '5hhUW_Y" '6Yb 'Ua]b '\XbXfcž 'GdfYW\ Yf
XYf'; Yk Yf_gW\ UZhž 'Yf_`AfhY. '8 Ug`]gh'gW\ cb 'K U\bg]bbž 'XUgg
i bgYfY'?c``Y[]b 'j cb 'XYf 'DUf_fUi a VYk]fhgW\ UZhi b['[Yn]Y`h']bg
J]g]Yf'[Ybca a Yb 'k]fX'i bX 'Ya UbX '\]Yf'j Ò``]['g_fi dY``cg
gW\ k YfghY 'J Yf`Yhni b[Yb 'i bX' [Uf 'XYb 'HcX'Y]bYg' A YbgW\ Yb ']b
?Ui Z'b]a a h" '9f'ZcfXYfhY 'Y]bY', VYfdfØZi b['XYf
GW\ i mUi gghUhhi b['ZØf'X]Y 'A]hUfVY]hYf"

8]Y'GW\ØggY'Ui Z'X]Y'CfXbi b[gUa hga]hUfVY]hYf]b'k YfZYb'Y]b
[fY``Yg'@]W\h'Ui Z'X]Y'; YZU\fYbž'XYbYb'ÒZZYbh`]W\Y'5b[YghY``hY
Ui g[YgYhnh'g]bX"'8]Y'Dc`]nY]'\Uh'nk Uf'Y]bY'5bnY][Y
Ui Z[Ybca a Ybž'XcW\'X]Y'I bg]W\Yf\Y]h'V`Y]Vh"'\D'Y]bYf'NY]hž']b'XYf
5[[fYgg]cbYb'[Y[Yb'6YUa hY'ni bY\a Ybž']gh'XYf'Fi Z'bUW\'a Y\f
GW\i hna U\b\U\a Yb'`Ui hYf'XYbb'Y"'8]Y'; Yk Yf_gW\UZh'ZcfXYfh
Xf]b[YbXž'XUgg'X]Y'G]W\Yf\Y]h'XYf'A]hUfVY]hYf'Ub'cVYfghYf'GhY``Y
ghY\h"

8]Y FY`Yj Ubn XYg J cfZU``g

 $8] YgYf'JcfZU```]gh'b] WXh'bi f'Y]b''9]bnY`ZU``ž'gcbXYfb'Y]b\\ U`Ufa] YfYbXYg'NY] WXYb'ZØf'X] Y'k UWXgYbXY'; Yk U`hVYfY] hgWXUZh']b\\ XYf'; YgY``gWXUZh'''8] Y'Dc`]nY]'i bX'X] Y'6Yn] f_gfY[] Yfi b['a ØggYb'Yhnh'\UbXY`bž'i a 'X]Y'G] WXYf\Y]h']\fYf'A]hUfVY] hYf'ni [Yk À\f`Y]ghYb'''8] Y'6Øf[Yf'a ØggYb'g] WX'XUfUi Z'j Yf`UggYb'_ObbYbžXUgg'X] Y'Yb][Ybž'X] Y'ZØf'X] Y'OZZYbh`] WXY'CfXbi b['gcf[Ybž'Ui WX[YgWXØhnh'k YfXYb'''K] Y'F66&('VYf] WXhYhYž'] gh'X] Y'8]g_i gg]cb$

 \emptyset VYf`X]Y`G]W\Yf\Y]h'j cb'6YUa hYb']b'XYf'^2 ZZYbh`]W_Y]h'U_hi Y``Yf XYbb'`Y"

±0g[YgUa h'nY][h'X]YgYf'JcfZU``ž'k]Y'k]W\h]['Yg']ghž'X]Y'G]W\Yf\Y]h
j cb'A]hUfVY]hYfb']a 'ÒZZYbh`]W\Yb'8]Ybgh'ni 'df]cf]g]YfYb"'8]Y
; YgY``gW\UZh'a i gg'ni gUa a YbghY\Ybž'i a 'gc`W\Y'5b[f]ZZY'ni
j Yfi fhY]`Yb'i bX'X]Y'bchk YbX][Yb'A U» bU\a Yb'ni 'Yf[fY]ZYbž
XUa]h'g]W\'gc`W\Y'JcfZÀ``Y'b]W\h'k]YXYf\c`Yb"'9g']gh'Ub'XYf'NY]hž
XUgg'k]f'U`g'; Ya Y]bgW\UZh'ZØf'X]Y'G]W\Yf\Y]h'i bgYfYf
CfXbi b[q\ØhYf'Y]bhfYhYb'i bX'q]Y'j cf'; Yk U`h'qW\ØhnYb"

8 YhU]`g	
Cfh	7\UiggYYghfU»Yž'%\$%%)'6Yf`]bž'8YihgW\`UbX

6Ygi WXYb 'G]Y 'i bg 'Ui Z. 'a Y]b!VYf`]b "bYh