

@ci]g': fUb_ 'ZØ\ fh'HGJ ; Y]gY`Vi ``UWÅ 'a]h
@Ugh!A]bi hY!Hc f'ni a '8YfVm!G]Y[

; Y]gY`Vi ``UWÅ 'g]Y[h]a '8YfVm[Y[Yb`l bhYfdZUZZYb\cZYb
XUb_`Y]bYg'gdÅhYb'?cdZVU`hcfg'j cb'@ci]g': fUb_`"GdUbbi b[
V]g'ni f`YhnhYb`A]bi hY`

⊕`Y]bYa 'gdUbbYbXYb'8YfVmink]gWÅYb`XYa 'HGJ ; Y]gY`Vi ``UWÅ
i bX`XYa 'G7`l bhYfdZUZZYb\cZYb`[UV`Yg`Ua `j Yf[Ub[YbYb`GcbbhU[
Y]bYb`XfUa Uh]gWÅYb`G]Y['ZØf`X]Y ; ÅghY`"8Yf`YbHgWÅY]XYbXY
A ca Ybh`_Ua `]b`XYf`B UWÅgd]Y`nY]hž`U`g`@ci]g': fUb_`'a]h]Y]bYa
'cdZVU`h`fYZZYf`XUg`Gd]Y`ni [i bghYb`gY]bYf`A UbbgWÅUZh`YbHgWÅ]YX"
8Yf`gdÅhY`&.%!G]Y[']gh`b]WÅh`bi f`Y]b`[fc» Yf`9fZc`['ZØf`XYb`HGJ ž
gcbXYfb`j YfXYi h]WÅh`Ui WÅ`XYb`J Yf`Ui Z`XYg`Gd]Y`gž`XUg`V]g'ni f`+, "
A]bi hY`Y]bY`_UFY : Ø\fi b['ZØf`X]Y`<Ui g\YffYb`UbnY][hY"

; Y]gY`Vi ``UWÅ `hfUh`U`g`i b[YgWÅ`U[YbY`A UbbgWÅUZh`Ub`i bX`k`c`hY
XYb`?cbhU`_h`ni f`HUVY`Yb`gd]hnY` \U`hYb`"8]Y`l bhYfdZUZZYb\cZYbYf
\]b[Y[Ybž`X]Y`ni j cf`bcWÅ`XYb`D`Uhn`Ub`XYf`GcbbY`[Y\U`hYb
\UhYbž`a i gghYb`bUWÅ`X]YgYa `Gd]Y`Y]bYb`FØW`_gWÅ`U[
\]bbY`a Yb`"HfU]bYf': fUbWÅ`G]a cb`a i gghY`bUWÅ`XYa `Gd]Y`
Y]b[YghY`Ybž`XUgg`gY]b`HYUa `nk Uf`X]Y`?cbhfc`Y`ØVYf`XUg`Gd]Y`
\UhYž`UVYf`Y]XYf`X]Y`7\UbWÅ`b`b]WÅh`k U\fyb`_cbbhY`" K]f
a ØggYb`Y]bZUWÅ`XUg`&.\$`bUWÅ`Y[Ybž`VYXUi YfhY`G]a cb`i bX
gdFuwÅ`XUa]h`X]Y`j YfdUgghYb ; Y`Y[Yb\Y]hYb`Ubž`X]Y`XYa `G7l
ni a `JYf\Åb[b]g`k i fXYb"

8Yf`Gd]Y`j Yf`Ui Z

8Yf ; Ugh[YVYf`G7`l bhYfdZUZZYb\cZYb`ghUfhYhY`XmbUa]gWÅ`]b`X]Y
DUfh]Y`i bX`[]b[`VYfY]hg`bUWÅ`XfY]`A]bi hYb`Xi fWÅ`Y]bYb`HfYZZYf
j cb`H\ca Ug`6U`_U`cfn`]b : Ø\fi b["8]YgY`ZfØ`Y : Ø\fi b[`gWÅ]Yb

XYb' < Ui g\YffYb'5i Zhf]YV'ni '[YVYbž'i bX'g]Y'Xca]b]YfYb'j]Y'Y
D\UgYb'XYg'Gd]Y'g" '6YgcbXYfg'?Yj]b'ž f]bY' \UhhY']b'XYf'YfghYb
<U'VnY]h'nk Y]'[i hY'A Ò['j]W\ _Y]hYbž'X]Y'XUg'Gd]Y'ZfØ\ nY]h[' \ÀhhYb
YbhgW\Y]XYb' _ÒbbYbž'gW\Y]hYfhY'YXcW\ 'Yk Y]'g'Ua
; Y]gY'Vi ''UW\Yf'Hcfk Ufh'GhYZUb' <Y'X"

B UW\ 'XYf' < U'VnY]hdUi gY'ZUW\hY'XYf'8fi W_ 'XYg'G7I 'YXcW
a Yf_]W\ 'UV"'8]Y'; ÀghY'j cb'; Y]gY'Vi ''UW\ 'ZUbXYb'a Y\ f'GW\k i b[
i bX'VY[UbbYbž'U_h]j Yf'Ua 'Gd]Y'hY]'ni bY\ a Yb"'6YgcbXYfg'XYf
Y]b[Yk YW\gY'hY '@ _Ug'6Ò\ a 'ÀbXYf'gcf[hY'ZØf'Zf]gW\Yb'K]bX'i bX
\UhhY']b'_i fnYf'NY]h'nk Y]' \Yfj cffU[YbXY'7\UbW\ bž'X]Y'Yf'YXcW
b]W\h'bi hnYb'_cbbhY"'9g'gW\Y]bž'U'g'cV'X]Y'? fÀZhY'VY]
I bhYfdZUZYb\cZYb'bUW\ 'Y» Ybž'k Ug'XYf'HGJ 'ZØf'g]W\ 'Ui gbi hnYb
_cbbhY"

8 Yf'XfUa Uh]gW\ Y'9bXgdi fh

⇒ XYf'+- "'A]bi hY'Z]Y'XYf']bnk]gW\Yb'a Y\ f'U'g'j YfX]YbhY
5i g['Y]W\ 'ZØf'; Y]gY'Vi ''UW\ "'7\ f]ghcd\Yf'F Y]m'hfUZ'a]hY]bYa
GW\i gg'Ui g[i h'&\$'A YhYfbž'XYf'XUb_'XYf'A]h\]'ZY'XYg
⇒ bYbdZcghYbg']bg'BYm'[]b["'Bi b'k Uf'X]Y'DUfh]Y'_ca d'Yh'icZZYbž
i bX'XUg'A ca Ybhi a '\UhhY'g]W\ 'j c''ghÀbX][]b'F]W\hi b['XYf'; ÀghY
[YXfY\h'K À\ fYbX'XYf'G7I 'ni bY\ a YbX'i bhYf'8fi W_ [Yf]Yhž
gW\k c''X]Y' < cZbi b['Ui ZY]bYb'G]Y['VY]'XYb'; Y]gY'Vi ''UW\ Yfb'Ub"

⇒ XYf'B UW\gd]Y'nY]h'Z]Y'XUbb'XYf'GW\ 'i ggdi b_h'"9]b'9W_VU''j cb
Fca Ub': i W\g'gY[Y'hY']b'XYb'GhfUZfUi a ž'k c '@ci]g': fUb_'ja
'?cdZVU''Xi Y''YfZc'[fY]W\ 'k Uf'i bX'XUg'Gd]Y'YbX[Ø'h]['ni ' ; i bghYb
gY]bYg'HYUa g'YbhgW\Y]XYb'_cbbhY"'8Yf'ž VY'VY]'XYb'HGJ!
5_hYi fYb'_UbbhY'_Y]bY'; fYbnYb"'HfU]bYf'GhYZUb' <Y'X''cVhY'bUW\
XYa 'Gd]Y': fUb_'i bX'VYnY]W\ bYhY']\b'U'g' YW\hYg
A YbhU']hÀhga cbghYfž 'XUg']b'X]YgYf'YbhgW\Y]XYbXYb'D\UgY'gY]bYg
HYUa g'Y]bZUW\ 'i bj Yfn]W\hVuf'k Uf"

8]Y'DUfh]Y'nY][h'Y]ba U'a Y\ fž'k]Y'k]W\h['Yg'a ' : i » VU'']ghž'Ui W\
]b'_f]h]gW\Yb'A ca YbhYb'ghUf_'ni 'VY]VYb'i bX'7\UbW\ b'ni 'bi hnYb"
6Y]XY'HYUa g'\UVYb'bi b'j]Y'Ui g'X]YgYa '5i ZY]bUbXYfhfYZZYb
[Y'Yfbh' ; Y]gY'Vi ''UW\ '_Ubb'k Y]hYf\]b'j cb'Y]bYf'g]Y[fY]W\Yb

GU]gcb`hfÀi a Ybž`k À\fybX`l bhYfdZUZZYb\cZYb`bUW`X]YgYf
B]YXYf`U[Y`Y]bY`k]W`h][Y`@Y\fy`]b`XYf`n]Y`[Yf]W`hYhYb
7\UbW`bj Yfk Yfhi b[`n]Y\Yb`gc`hY"

8YhU]`g

6Ygi W`Yb`G]Y`i bg`Ui Z.`X]Y!bUW`f]W`hYb`"bYh