

GhY][ YbXY ' ? f]a ]bU`]hÅh. ; f]`! 'i bX  
HUgW\ YbX]YVghÅ\ `Y`]b`F \ Ui XYfZY\ b

8]Y`Dc`]nY]]bgdY\_h]cb`@YYf#9a XYb`VYf]W\hYh`ØVYf`a Y\ fYfY  
8]YVghÅ\ `YžXUfi bhYf`; f]`! 'i bX`HUgW\ YbX]YVghÅ\ `Yž]b  
F \ Ui XYfZY\ b`i bX`@YYf" "< ]bk Y]gY`[ Ygi W\h`

&("\$+ "&\$&( ' '%%) ,

Dc`]nY]]bgdY\_h]cb`@YYf#9a XYb

I b[ Yk c\ bhY`F ØW\_gW\ `Å[ Y`]b`XYf  
B UW VUfgW\ UZh. '8]YVghÅ\ `Y`VY`UghYb`X]Y  
`c\_U`Y`; Ya Y]bgW\ UZh

⇒`XYb`YhnhYb`K cW\Yb`k i fXY`X]Y`FY[ ]cb`@YYf#9a XYb`YfbYi hij cb  
Y]bYf`K Y`Y`\_Y]bYfYf`8]YVghÅ\ `Y`\Y]a [ Ygi W\hž`X]Y`b]W\h`bi f  
a UhYf]Y`Y`GW\`ÅXYb`j Yfi fgUW\Ybž`gcbXYfb`Ui W\`XUg  
G]W\Yf\Y]hg[ YZØ\`XYf`5bk c\ bYf`VYY]bhfÅW\h][ Yb"K Å\ fYbX`j ]Y`Y  
6Øf[ Yf`\f`9][ Ybhi a`gcf[ gUa`gW\ØhnYbž`gW\Y]bYb`HÅhYf`]a a Yf  
k ]YXYf`K Y[ Y`ni`Z]bXYbž`i a`i bUb[ YbY\ a Y` , VYffUgW\i b[ Yb  
Ui gni`ØgYb"

9]bY`i b[ YVYhYbY`B UW hVYgi W\Yf`]b  
F \ Ui XYfZY\ b

⇒`XYf`B UW h]j ca`%\$"Ui ZXYb`%" " † ' ] & \$( 'ghU\`Yb`i bVY`UbbhY  
HÅhYf`Y]bYb`; f]`j cb`Y]bYf`HYffUggY`Ub`XYf`< Ui dhghfU» Y`]b  
F \ Ui XYfZY\ b"8Yf`; f]`k Uf`a ]hY]bYf`? YhhY`[ Yg]W\Yfhž`k Ug`YXcW\  
X]Y`8]YVY`b]W\h`XUj cb`UV\]Y`hž`XUg`CV`Y`\_h]a`K Yfhj cb`ØVYf`%\$\$  
9i fc`ni`Ybhk YbXYb"8Yf`J cfZU`k ]fZhi: fU[ Yb`Ui ZØVYf`X]Y

G]W\Yf\Y]h]b`K c\b[ YV]YhYb`i bX`XUg`J YfhfUi Yb`XYf`6Øf[ Yf`]b`X]Y Dc`]nY]ž`X]Y`i a`<]bk Y]gY`[ YVYhYb`\Uhž`i a`XYb`HÅhYf`ni`Yfa`]hhY`b"

## HUgW\YbX]YVY`i bhYfk Y[ g`]b`@YYf

8]Y`8]YVghU\`gYf]Y`gYhnhY`g]W\`Ua``&\$" `đ` `]&\$&( `]b K Yghcj Yf`YX]b[ Yb`Zcfhž`U`g`Y]b`HÅhYf`Ui ZXYa` `: f]YX\cZgdUf\_d`Uhn XYf`Yj Ub[ Y`]gW\!fYZcfa`]YfhYb`?]fW\Y`Y]b`DcfhYa`cbbU]Y`Ui g Y]bYa`Xcfh`UV[ YghY`hYb`5i hc`Yb`hk YbXYhY" `8Uni`XfUb[ `Yf`Xi`fW\ Y]bY`hY`k Y]gY`[ YØZbYhY` : YbghYfgW\Y]VY`Y]b`i bX`Ybhf]gg`XYf VYhfcZZYbYb`DYfgcb`]\f`9][ Ybhi`a`" `A`]h`XYf`97!`? UfhY`XYf ; YgW\ÅX][ hYb`\_Ui ZhY`XYf`i bVY`UbbhY`Ub`Y]bYa N][ UfYhhYbUi hca`UhYb`i bX`j`Yfi fgUW\hY`XUa`]h`k Y]hYfY`GW\ÅXYb ]a`a`]hh`YfYb`XfY]ghY``][ Yb`6YfY]W\"

## GW\i hna U» bU\`a`Yb`i bX`DfÅj`Ybh]cb`g]bX bchk`YbX][

9]b`k Y]hYfYf`J`cfZU``YfY][ bYhY`g]W\`Ua` `[ `Y]W\Yb`HU[ `]b`@YYfž`k`c Y]bYa`+,`!`Å`\f][ Yb`A`Ubb`]b`Y]bYa` `8]gW\`i`bhYf`]b`XYf BØhhYfa`ccfYf`GhfU»Y`X]Y` ; Y`XVØfgY`Yb`hk`Yb`XYh`k`i`fXY" `8Yf J`cfZU``ž`XYf`i`a``%`.\$`\$`I`\f`ghUhhZUbXž`ghY`h`Y]bY`5i`Zc`fXYfi`b[ `Ub X]Y`Å`hYfYb` ; YbYfUh]cbYb`XUfž`VYgcbXYfg`UW\hgUa`ni`gY]bž`XU`g]Y cZh`C`dZYf`j`cb`HUgW\YbX]YVYb`k`YfXYb" `Gc`W\Y` : Å`Y`nY][ Ybž`k`]Y k`]W\h][ `Yg`]ghž`g]W\`[ Y[ YbgY]h][ `ni`i`bhYfghØhnYb`i`bX`Ui`ZY]bUbXYf ni`UW\hYbž`i`a`dchYbn]Y``Y`HÅhYf`UVni`gW\fYW`\_Yb"

## ; Ya`Y]bgUa` `[ Y[ Yb`X]Y`?`f]a`]bU`]hÅh

8]Y`Dc`]nY`\Uh]b`U`Yb` : Å`Yb`9fa`]hhi`b[ Yb`Ui`Z[ Ybca`a`Yb`i`bX fi`Zh`X]Y`6Yj`Ø`\_Yfi`b[ `XUni`Ui`Z`VY]`<]bk Y]gY`Ui`Zj`YfXÅW\h][ Y 5\_h]j`]hÅhYb`gcZcfh`?`cbhU`\_h`Ui`Zni`bY`a`Yb" `8]Y`8]YbghghY``Yb ghY`Yb`i`bhYf`XYb`Zc`[ YbXYb`Bi`a`a`Yfb`ni`f`J`YfZØ[ i`b[ `Dc`]nY] @YYf`\$`(-`%!`-`+`\*`-`\$\$`/`Dc`]nY]`9a`XYb`\$`(-`&%!,`-`%\$`i`bX`j`]Y`Y`k`Y]hYfY 8]YbghghY``Yb`]b`XYf`FY[ `]cb"

## 8]Y`6YXYi`hi`b[ `XYg`[ Ya`Y]bgW\UZh`]W\Yb

# G]W\ Yf\ Y]hgVYk i gghgY]b g

8]Y`V]g\Yf][ Yb`J cfZÄ`Y`j YfXYi h`]W\Ybž`k ]Y`k ]W\h][ `Yg`ZØf`X]Y  
; Ya Y]bgW\UZh`]ghž`g]W\`ni gUa a Ybni gW\`]Y»Yb`i bX`A U» bU\`a Yb  
ni f`8]YVghU\`gj cfVYi [ i b[ `ni `Yf[ fY]ZYb``9]bY`ghUf`\_Y  
B UW\ VUfgW\UZh`X]Y`U`\_h]j `Ui ZY]bUbXYf`UW\hYhž`\_Ubb`Y]bYb  
YbhgW\Y]XYbXYb`9]bZi gg`XUfUi Z`UVYbž`dchYbn]Y``Yb`?`f]a ]bY``Yb  
XUg`< UbXk Yf`\_ni ``Y[ Yb``9g`]gh`Ub`XYf`NY]hž`XUgg`6Yk c`bYf  
[ Ya Y]bgUa `ZØf`]\fY`G]W\Yf\Y]h`Y]bhfYhYb`i bX`GW\k ]Yf][ `\_Y]hYb  
cZYb`UbgdYfW\Yb`

: Øf`F ØW`ZfU[ Yb`ghY`h`X]Y`DfYggYghY``Y`XYf`Dc`]nY]]bgdY`\_h]cb  
@YYf#9a XYb`i bhYf`XYf`HY`YZcbbi a a Yf`\$(-`%|-`+\*`-\$`%\$( `cXYf`dYf  
9!A U]`ØVYf`dfYggYghY``Y4`d]!`Yf`dc`]nY]]b]YXYfgUW\gYb`XY`ni`f  
JYfZØ[ i b[ "

C f][ ]bU`!7cbhYbh`j cb.`Dc`]nY]]bgdY`\_h]cb`@YYf#9a XYbž`ØVYfa ]hY`h  
Xi fW\`bYk`g`U`\_hi`Y``

· ·B 5;

8YhU]`g

6Ygi W\Yb`G]Y`i bg`Ui Z.`b!U[ "XY