

F UgUbhY`J YfZc`[ i b[ g^U[ X`]b` ; fUbgYY.  
A cdYXZU\ fYf`fUa a h`Dc`n]ghYb

9]b`%, !Å\ f][ Yf`G]a gcb!F UgYf`fUa a h`]b` ; fUbgYY`Y]bYb  
Dc`n]ghYb`VY]`Y]bYf`?cbhfc`Y`i bX`Z]Y\h`'9fa ]hh`i b[ Yb`Ui ZYb  
[ Y[ Yb`]\b"

⇒ a`a U`Yf]gW`Yb` ; fUbgYYžY]bYf`GhUXh`]a`@UbX\_fY]g`C VYf\Uj Y`ž  
\Uh]g]W`Ua`A c b hU[ `Y]b`J cfZU`YfY][ bYhž`XYf`X]Y`5i Za Yf\_gUa \_Y]h  
XYf`Dc`nY]i bX`XYf`² ZYb h]W`\_Y]h`Ui Z`g]W`nc[ "'9]b`%, !Å\ f][ Yf  
A cdYXZU\ fYfž`XYggYb`fØW\_g]W`hg`cgYg` : U\ f] Yf\ U`hYb`b]W`h  
i bVYa Yf\_h`V`]YVž`YZYfhY`g]W`Y]bY`J YfZc`[ i b[ g^U[ X`a` ]hXYb  
CfXbi b[ g\ØhYfb`"8]YgYf`J cfZU`k`]fZh` : fU[ Yb`ØVYf`X]Y  
G]W`Yf\Y]hg`U[ Y`]a`GhfU» Ybj Yf\_Y`f`i bX`X]Y`J YfUbhk`cfh`i b[  
↑ b[ Yf` : U\ fYf`Ui Z`

8]Y`Dc`nY]k`i fXY`Ui Z`XYb`↑ b[ Yb` : U\ fYf`Ui Za Yf\_gUa ž`U`g`Yf`a` ]h  
gY]bYa`A cdYX`fUgUbhi bX`i bj YfUbhk`cfh]W`Xi fW`X]Y`GhfU» Yb  
Z` \f`"5bghUhh`ni`VfYa`gYb`i bX`Ubni` \U`hYbž`hfUh`XYf`A cdYXZU\ fYf  
Ui Zg` ; Ug`i bX`j Yfgi W`hYž`g]W`Y]bYf`?cbhfc`Y`ni`Ybhn]Y\Yb`"8]Y  
G]hi Uh]cb`Yg\_U`]YfhYž`U`g`XYf` : U\ fYf`Y]bYb`" ) !Å\ f][ Yb  
Dc`nY]VYUa`hYb`k`Å\ fYbX`gY]bYg` : `i W`hj Yfgi W`g`fUa`a`hY`"8Yf  
6YUa`hY`a`i gghY`]bZc`[ Y`XYf`?c`]g]cb`]b`Y]b`?fUb\_Yb\Ui`g  
Y]b[ Y`]YZYfh`k`YfXYbž`k`Ug`X]Y`GW`k`YfY`XYg`J cfZU`g`i bhYfghfY]W`h`

HYW`b]gW`j`YfÅbXYfhYg`A cdYX`]a`J`]g]Yf`XYf  
9fa`]hh`i b[ Yb

@Ui`h`XYb`YfghYb`6Yf]W`hYb`[ UV`XYf`↑ b[ Y` : U\ fYf`Ubž`XUgg`Yf`gY]b  
A cdYX`hYW`b]gW`a`cX]Zn]Yfh`\UhhYž`i`a`gW`bY`Yf`ZU\ fYb`ni  
\_ØbbYb`"8]YgY`J YfÅbXYfi`b[ Ybž`X]Y`]a`J`c`\_ga`i bX`U`g`hi`bYb  
VY\_Ubbh]g]bXž`\_ØbbYb`X]Y`@Y]ghi`b[ `Y]bYg`A`chc`ffUXg`cXYf`A`cdYXg`

Yf\YV`jW`ghY][ Yfb"C V k c\`X]Y`Dc`nY]`XYb`[ YbUi Yb`Hmd`XYg  
A cdYXg`b]W`h`b`UbbhYž`\_`ÒbbhY`Yg`g]W`i`a`XUg`G) %\UbXY`bž`Y]b  
VY`]YVhYg`A cXY`i`bhYf`A cdYX!6Ugh`Yfb"8 Ug`A cdYX`k`i`fXY  
g]W`Yf[ YghY`h`i`bX`U`Y`VYk`Y]gY`g]W`Yf[ YghY`hž`k`À`fYbX`[ Y[ Yb  
XYb`%, !`À`f][ Yb`Yfa`]hY`h`k`]fX"

8]Y`J`cfk`ØfZY`[ Y[ Yb`XYb`↑`b[ Yb`A`Ubb`g]bX`gW`k`Yfk`]Y[ YbX`i`bX  
VY]b\U`hYb`[ YZÀ`f`]W`Yb`9]b[ f]Z]b`XYb`GhfU» Ybj`Yf`\_`Y`fž  
HY]`bU`a`Y`Ub`Y]bYa`]`Y[ U`Yb`GhfU» YbfYbbYb`gck`]Y`K`]XYfghUbX  
[ Y[ Yb`X]Y`J`c`ghfYW`i`b[ gVYUa`hYb"8]Yg`]gh`b]W`h`XYf`YfghY`J`cfZU`  
gY]bYf`5fh]b`XYf`F`Y[ ]cb/VYfY]hg`]a`A`U]k`i`fXY`Y]b`%+!`À`f][ Yf  
: U`fYf`]b`HYa`d`]b`a`]hY]bYa`À`b`]W`Yb`A`cdYX`bUW`Y]bYf  
J`YfZc`[ i`b[ g`U[ X`[ Yghc`ddh" `Gc`W`Y`8Y`]\_`hY`nY][ Yb`Y]b`k`UW`gYbXYg  
DfcV`Ya`]a`I`a`[ Ub[ `a`]h]`Y[ U`Yb`Y`bXYfi`b[ Yb`Ub`: U`fnYi`[ Yb  
i`bX`XYf`XUa`]hj`YfVi`bXYbYb`; YZÀ`f`]W`\_`Y]h]a`GhfU» Ybj`Yf`\_`Y`f"

8]Y`J`cfZÀ`Y`k`YfZYb`Y]b`@]W`h`Ui`Z`X]Y`<`YfUi`gZcfXYfi`b[ Ybž`a`]h  
XYbYb`X]Y`Dc`nY]`\_`cbZfcbh]Yfh]ghž`k`Ybb`Yg`XUfi`a`[ Y`hž`X]Y  
G]W`Yf\Y]h`Ui`Z`XYb`GhfU» Yb`ni`[ Yk`À`f`Y]ghYb" `A`cdYX!F`YbbYb  
cXYf`f]g`\_`UbhY`: U`fa`Ub`Òj`Yf`g]bX`b]W`h`bi`f]`Y[ U`ž`gcbXYfb`gYhnYb  
Ui`W`X]Y`G]W`Yf\Y]h`gck`c\`XYf`: U`fYf`U`g`Ui`W`X`Yf`UbXYfYb  
J`Yf`\_`Y`fghY]`bY`a`Yf`Ui`Zg`Gd]Y`"8Yf`J`cfZU`"b`; fUbgYY`\_`ÒbbhY  
k`Y]hYfY`8]g`\_i`gg]cbYb`ØVYf`J`Yf`\_`Y`fgfY[ Y`b`i`bX`X]Y  
B`ch`k`YbX][`\_`Y]hj`cb`5i`Z`\_`Àfi`b[ `ni`g]W`YfYa`: U`fYb`bUW`g]W`  
n]Y`Y`b"

J`YfUbhk`cfhi`b[ `]a`GhfU» Ybj`Yf`\_`Y`f`U`g  
GW`\_`ØggY`ni`f`G]W`Yf\Y]h

≠`5bVYhfUW`h`X]YgYf`9bhk`]W`\_i`b[ Yb`]gh`Yg`k`]W`h][ ž`XUgg`b]W`h`bi`f  
X]Y`; YgYhn[ YVi`b[ ž`gcbXYfb`Ui`W`X]Y`; YgY`gW`UZh`VY]`XYf  
: ØfXYfi`b[ `j`cb`j`YfUbhk`cfhi`b[ gj`c`Y`a`: U`fj`Yf\U`hYb`Y]bY`F`c`Y  
gd]Y`h"5i`Z`\_`Àfi`b[ `ØVYf`X]Y`; YZU`fYb`XYg`ØVYfhf]YVYbYb`Hi`bYbg  
i`bX`ZUghfUi`gW`\UZhY`: U`fk`Y]gY`\_`ÒbbhY`k`YgYbh]W`X`Uni  
VY]hfU[ Ybž`X]Y`NU`Yb`gc`W`Yf`J`cfZÀ`Y`ni`gYb`\_`Yb" `đ`b[ Y`: U`fYf  
VYb`Øh][ Yb`\_`UfY`≠Zcfa`U]cbYb`i`bX`J`cfV]`XYfž`X]Y  
j`YfUbhk`cfh]W`Yg`: U`fj`Yf\U`hYb`YI`Ya`d`]Z]n]YfYbž`i`a`X]Y`GhfU» Yb  
g]W`Yf`ni`\_`U`hYb"

# F UgYfi bZÄ`Y`i bX`]\fY`? cbgYe i YbnYb

I bZÄ`Yž`X]Y`Xi fW`fØW\_g]W`hg`cgYg': U`fYb`j`Yfi fgUW`h`k`YfXYbž`  
`UVYb`c`Zh`gW`k`Yfk`]Y[`YbXY`:`c`[`Yb`gck`c`\"ZØf`X]Y`6YhY`]]`hYb`U`g`  
Ui`W`ZØf`i`bVYhY`]]`hY`"@Ui`h`XYf`6i`bXYgUbghU`h`ZØf`GhfU»`Ybk`YgYb`  
f65GhL`[`UV`Yg`]a``ſ\`f`&\$&%`]b`8Yi`hgW`UbX`ØVYf`&")`\$\$`  
F UgYfi bZÄ`Yž`VY`]`XYbYb`a`Y`f`U`g`&\$`\$`DYfgcbYb`[`YhØhYhi`bX`fi`bX`  
`"\$\$\$`j`Yf`Yhnh`k`i`fXYb`"8`]YgY`GhUh]gh`\_Yb`j`YfXYi`h`]W`Ybž`k`]Y`  
[`YZÄ`f`]W`:`YgW`k`]bX`[`\_Y]hgØVYfhfYhi`b`[`Yb`g]bX`i`bX`k`Y`W`Y`  
F]g`\_Yb`g]Y`gck`c`\"ZØf`XYb`F UgYf`U`g`Ui`W`ZØf`X]Y`5`[`Ya`Y]b`Y]h`  
a`]h`g]W`Vf]b`[`Yb`"6YgcbXYfg`VY`]`A`cdYXg`i`bX`Ä`b`]W`Yb`  
:`U`fnYi`[`Ybž`X]Y`Äi`Z[`b`]W`h`X]Y`G]W`Yf`Y]hgghUbXUfXg`j`cb`D?`K`g`  
YfZØ`Ybž`ghY`[`Yb`X]Y`:`Y`ZU`fYb`"

Ni`XYa`nY`[`h`Y]bY`Ghi`X]Y`XYg`8Yi`hgW`Yb`J`Yf`\_Y`fgg]W`Yf`Y]hgfUhg`  
fB`J`F`Ł`XUgg`]bgVYgcbXYfY`ſ`b`[`Y`:`U`fYf`i`bhYf`&)`ſ\`fYb`]b`XYf`  
F]g`\_c`[`fi`ddY`ZØf`F UgYfi`bZÄ`Y`ØVYffYdfÄgYb]Yfh`g]bX`"8`]Yg`\_Ubb`  
Ui`ZY]bY`?`ca`V]bUh]cb`j`cb`i`bYfZU`fYbYf`:`U`fk`Y]gYž`  
`VYfVYk`Yfhi`b`[`XYf`Y`[`YbYb`:`U`fZÄ`[`\_Y]hYb`i`bX`Y]bYa`  
[`YghY`[`YfhYb`8fUb`[`b`UW`5XfYbU`]b`ni`fØW`[`YZØ`fh`k`YfXYb`"  
Gc`W`Y`J`cfZÄ`Y`gc`f`[`Yb`b]W`h`bi`f`ZØf`Y]bY`Yf`Ö`hY`:`YZÄ`fXi`b`[`]a`  
GhfU»`Ybj`Yf`\_Y`fž`gcbXYfb`VY`UghYb`Ui`W`X]Y`Dc`nY`]i`bX`XYb`  
F`Yhi`b`[`gX]Ybghž`X]Y`]b`gc`W`Yb`:`Ä`Yb`Äi`Z[`i`bhYf`ghUf`\_Ya`8fi`W`  
ghY`Yb`"

## 8]Y`fYW`h`]W`Yb`:`c`[`Yb`j`cb`F UgYb`i`bX`

### K`]XYfghUbX`

ſ`8Yi`hgW`UbX`g]bX`X]Y`fYW`h`]W`Yb`F`U`a`YbVYX]b`[`i`b`[`Yb`ZØf`  
fØW\_g]W`hg`cgYg': U`fYb`\_`Uf`XYZ]b]Yfh`"; Ya`Ä`z`'`%)`X`XYg`  
GhfUZ[`YgYhnVi`W`Yg`fGh`6Ł`]gh`XUg`:`U`fYb`Y]bYg`:`U`fnYi`[`g`]b`  
Y]bYf`K`Y]gYž`X]Y`[`YY`[`bYh`]ghž`UbXYfY`A`YbgW`Yb`ni`[`YZÄ`fXYbž`  
ghfUZ/Uf`"ſ`a`:`U`Y`XYg`%`!`ſ\`f`[`Ybž`XYf`Y]bYb`Dc`nY]VYUa`hYb`  
j`Yf`YhnhYž`\_ÖbbYb`X]Y`:`c`[`Yb`[`fUj`]YfYbX`gY]b`"BYVYb`XYf`  
:`Y`XghfUZY`Xfc`Yb`Ui`W`:`fY`Y]hgghfUZYb`j`cb`V]g`ni`ZØbZ`ſ\`fYb`  
ZØf`XUg`]`Y`[`U`Y`5i`hc`fYbbYb`i`bX`XYb`[`YZÄ`f`]W`Yb`9]b`[`f]Z`]b`XYb`  
GhfU»`Ybj`Yf`\_Y`f`"

Ni gÀhn`]W\`ni a `ghfUZfYW\h`]W\Yb`J YfZU\ fYb`\_ÒbbYb`Ui W\  
A U» bU\ a Yb`ni f`9bhn]Y\ i b[ `XYf` : U\ fYf`Ui Vb]g`Yf[ f]ZZYb`k YfXYb"  
8]Yg`k ]fX`VYgcbXYfg`]a `<]bV`]W`\_Ui Z`X]Y`K ]YXYf\c`i b[ g[ YZU\ f`U`g  
bchk YbX][ `YfUW\hYhž`i a `k Y]hYfY`I bZÀ``Y`ni `j Yf\]bXYfb`i bX`Y]b  
6Yk i ggghgY]b`ZØf`X]Y` ; YZU\ fYb`]a `GhfU» Ybj Yf`\_Y\ f`ni `gW\ UZZYb"

8YhU]`g

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