

## 8 Yf': `i W\XYf'i bk U\fgW\Y]b`]W\Yb HfAi a Y` ]ghYg`XUg`k Yfh3

K Å\fybX`]W`i bhYf`XYa` :`i W`i bk U\fgW\Y]b`]W\Yf`HfAi a Y`  
`Y]XYž`ZfU[ Y`]W`a` ]W`ž`cV`X]YgY`Ui » Yf[ Yk Ò\b`]W\Y`Gi W\Y`  
k ]f\_]W`X]Y`NY]hž`XUg`; Y`X`i bX`X]Y`A Ø\Y`k Yfh`]gh`6Y`]Y]bYa  
HfYZZYb`a` ]h`Y]bYa` :`fYi bX`\_Ua` \_Øfn`]W`XUg`H\Ya U  
HfUi a` ĉVg`ni f`GdfUW\Y`" ÆW`Yfk Å\bhY`X]Y`Øb[ ghY  
GhY`YbUi ggW\fy]Vi b[ `XYf`BYk`Mcf`\_H]a` Yg`ZØf`Y]bYb`  
æi fbU`]ghYbž`XYf`Y]b` ð\`f`Ub[ `i a` X]Y`K`Y`h`fY]gYb`i bX`]b  
]\fy a` `Å\`f`]W\Yb` :`YUhi fy` ) & `D`UW`g`hc` ;` c` `ØVYf`X]Y  
FY]gYn]Y`Y`VYf]W\hYb`k ØfXY`" 5VYf`a` UW\gh`Xi` XUg`b]W\h  
gW\cb3`G]Y`ZfU[ hY`" < Ugh`Xi` `b]W\h`gW\cb`Y]bYb`HfUi a` ĉV3  
`b`j` ]Y`Yf`Y`< ]bg]W\h`\Uh`g]Y`fYW\h`? ]U`i` bX`]W`fY]gYb  
VYfi Z]W`i a` X]Y`K`Y`h`/ Ua` d^Y`^]d/

K Å\fybX`]W`i bhYf`XYa` :`i W`i bk U\fgW\Y]b`]W\Yf`HfAi a Y`Y]XYž`  
ZfU[ Y`]W`a` ]W`ž`cV`X]YgY`Ui » Yf[ Yk Ò\b`]W\Y`Gi W\Y`k ]f\_]W`X]Y  
NY]hž`XUg`; Y`X`i bX`X]Y`A Ø\Y`k Yfh`]gh

6Y`]Y]bYa` `HfYZZYb`a` ]h`Y]bYa` :`fYi bX`\_Ua` \_Øfn`]W`XUg`H\Ya U  
HfUi a` ĉVg`ni f`GdfUW\Y`" ÆW`Yfk Å\bhY`X]Y`Øb[ ghY  
GhY`YbUi ggW\fy]Vi b[ `XYf`BYk`Mcf`\_H]a` Yg`ZØf`Y]bYb`æi fbU`]ghYbž`  
XYf`Y]b` ð\`f`Ub[ `i a` X]Y`K`Y`h`fY]gYb`i bX`]b`]\fy a` `Å\`f`]W\Yb  
: YUhi fy` ) & `D`UW`g`hc` ;` c` `ØVYf`X]Y`FY]gYn]Y`Y`VYf]W\hYb`k ØfXY`"

5VYf`a` UW\gh`Xi` XUg`b]W\h`gW\cb3`G]Y`ZfU[ hY`" < Ugh`Xi` `b]W\h  
gW\cb`Y]bYb`HfUi a` ĉV3

`b`j` ]Y`Yf`Y`< ]bg]W\h`\Uh`g]Y`fYW\h`? ]U`i` bX`]W`fY]gYb`VYfi Z]W`i a  
X]Y`K`Y`h`K` ]f`k`YfXYb`XUZØf`VYnU`\hž`XUg`ni`hi`bž`k`Ug`k` ]f`^]YVYb.  
X]Y`BUhi`f`ni`Yf`\_i`bXYb`"Ni` [ Y[ YVYbž`i`bg`ZY`\`Yb`j` ]Y`Y`XYf`

bcfa U`Yb`8]b[ Y`ja `@YVYb` `Y]b`Ni ` \Ui gYž`Y]b`ZYghYg`9]b\_ca a Ybž  
?ca Zcfh` `UVYf`k ]f`g]bX`[ `ØW`]W`i bX`\_ØbbYb`8]b[ Y`hi bžj cb  
XYbYb`j ]Y`Y`bi f`hfÅi a Yb. `YW`hY`6i W`Yh!@]gh!9f`YVb]ggY"

HfchnXYa `ghY`Yb`j ]Y`Y`i bYfZØ`hY`HfÅi a Y`Ui Z`a Y]bYf`6i W`Yh!@]gh"  
A Y]bY`@]ghY`VYZ]bXYh`g]W`i]b`Y]bYa `dYfa UbYbhYb`Ni ghUbX`XYf  
A YhUa cfd`cgY` `Åi Z][ `k YfXYb`9`Ya YbhY` \]bni [ YZØ[ h`i bX  
YbhZYfbh` žUVYf`Yg`[ ]Vh`Y]b][ Yž`X]Y`Ui gbU`a g`cg`V`Y]VYbžj cf  
U`Ya `X]Y`6YghY][ i b[ `XYf`g]YVYb` ; ]dZY`ž`XYg` \ØW`ghYb`6Yf[ Yg  
U`Yf`?cbh]bYbhY"

`U`h1 `6YghY][ i b[ `XYg`9`Vfi g`9`Vfi g! ; ]dZY`!+ 2 5h`Ug`/ `6cchg`5i Z  
XYa ` ; ]dZY`XYg`9`Vfi gž`9i fcdUg` \ØW`ghYa `6Yf[

8]Y`U``[ Y[ Ybk Åfh][ Yb`Di b\_hY`Ui Z`a Y]bYf`6i W`Yh  
@]gh

9f\_`]a a Yb`G]Y`X]Y`g]YVYb` ; ]dZY`f] ]Yf`bUW`i bhYbž`XfY]`bcW`ni  
[ Y`YbŁ`GY[ Y`b`G]Y`ØVYf`XYb`5h`Ubh]\_@YVY`]b`Y]bYa `ZYa`XYb`  
~~@Ub`X`6Ygi W`Yb`G]Y`%\$`\$`@AbXYf`fM]g`Yf` , ) ŁGW`fY]VYb`G]Y`Y]b`  
6i W`K UbXYfb`G]Y`XYb`5fW]WHfU]`]b` ; fØb`UbX`:`i [-nYi [-  
Z]Y[ YbGdf]b[ Y`Ui g`Y]bYa `:`i [-nYi [-~~

9g]gh`U``[ Ya Y]b`VY`\_Ubbhž`XUgg`a Ub`]a `@YVYb`U`Yg`YffY]W`Yb  
\_Ubbž`k Ug`a Ub`k ]`ž`k Ybb`a Ub`g]W`XUfUi Z`\_cbnYbhf]Yfh`GcW]U`!  
A YX]U!Dcghg`k YfXYb`H`Y`5`W`Ya ]gh`n]h]YfYb`i bX` ÆbYb`gU[ Ybž  
XUggž`k Ybb`G]Y`k ]f\_`]W`Yhk Ug`k c`Ybž`XUg`[ Ubny`l b]j Yfgi a`g]W`  
j YfgW`k c fYb` \Uhž`i a ` ÆbYb`XUVY]ni ` \Y`ZYbž`Yg`ni `YffY]W`Yb`  
UVYf`]W`[ `Ui VY`b]W`hž`XUgg`XUg`gh]a a h"

ÆW`[ `Ui VY`b]W`h`Ub`GW`]W`gU`cXYf`6Ygh]a a i b[ "ÆW`[ `Ui VY`b]W`h  
Y]ba U`ž`XUgg`VfUW`]U`Y`<UfhbÅW\_] [ \_Y]h`XUZØf`gcf[ Yb`k ]fXž`XUgg  
G]Y` ÆfY`i bk U`fgW`Y]b`]W`ghYb`HfÅi a Y`j Yfk ]f\_`]W`Yb"

6YhfUW`hYb`G]Y`a Y]bY`X]Y`g]YVYb` ; ]dZY`ni `Yf\_`]a a Yb`"9g`k ]fX  
k U`fgW`Y]b`]W`i b[ YZÅ`f`%\$`\$`\$`\$`! G!8c`Uf`\_cghYbž`X]Y  
j YfV`Y]VYbXYb`XfY] ; ]dZY`ni `VYghY][ Yb`"ÆW`\_Ubb`X]Y  
YfZcfXYf`]W`Yb` : Å\][ \_Y]hYb`Yf`YfbYbž`]W`\_Ubb`Z]h`[ Ybi [ `k YfXYb

i bX`jW`\_Ubb`ghi f`[ Ybi [ `gY]bž`Yg`ni `j Yfgi W`Ybž`ni `j Yfgi W`Yb  
i bX`Yg`YfbYi h`ni `j Yfgi W`Yb"

9g`[ Y`h`b]W`hi a `fc`Y`? fUZhž`?`ObbYb`cXYf`:]hbYgg` `]W` `UVY  
Y]bYb`GW`f]h`!`ZØf!`GW`f]h`!`Dfc`nYgg`ni f`6`YghY][ i b[ `XYf`g]YVYb` ; ]dZY`  
XUf[ Y`Y[ h` `UVYf`k`Ybb`]W` `b]W`h]a `@`c`h`c`[ Yk`]bbYž`\_Ubb`]W` `a` ]f`  
b]W`h]j`c`fghY`Ybž`Ya`U`g`XUg` ; Y`X`ni ` `UVYbž`i`a` `X]Y`g]YVYb` ; ]dZY`  
ni `VYghY][ Yb"

⇒W` `XYb`\_Yž`XUg`]gh`XYf` : `i` W` `i` bk`U`fgW`Y]b`]W`Yf`Hf`À`i`a`Y` `G]Y  
k`]ggYbž`XUgg`G]Y`g]Y`k`U`fgW`Y]b`]W` `b]Y`Y`ffY]W`Yb`k`YfXYbž`UVYf`  
G]Y`\_`ObbYb`XYb`8`i`fgh`b]W`h`gh]`Yb``8`i` `a`UW`gh`k`Y]hYf`a` ]h`XYf`  
<c`Z`bi`b[ ž`XUgg`Xi` `Yg`Y]bYg`HU[ Yg`gW`UZZYb`k`]fghž`Y[ U`k` ]Y  
i`bk`U`fgW`Y]b`]W` `XUg`?`i`bghghØW`\_]gh"

## 8 Yf` : `i` W` `i` bk`U`fgW`Y]b`]W`Yf`Hf`À`i`a`Y`

?]U`Yfk`À`b`h]a` ; YgW`Yb`\_`XYf`Nk`Y]gd`f`UW`][ \_Y]hž`XUgg`g]Y`N]hUH`  
i`bX`G`À`hnY`g`Ua`a`Y`hž`X]Y`g]Y`]bgd]f]YfYb``8`Ufi`bhYf`]gh` `hc`h`Y  
W`a`]b[ `hfi`Y`c`Z`mci`f`a`cghi`b[ `Ui`V`]W`Y`XfYUa` `Ui`g`XYa` : ]`a`  
5`b`ch`Yf`9`Ufh` ``9`g`]gh`XUg`G`hfYVYb`b`UW` `X]YgYb`K`c`fhYb`i`b`X  
XYa` `J`Yfgd`fYW`Ybž`XUg`g]Y`Yb`h`U`h`Ybž`XUg`a` ]W` `Ub`hfY]V`h"

: Øf`Y]bYb` `b[ Yb`j`ca` `@`Ub`X`Ui`g`XYa` `Z`UW`ghYb`HY]`  
; fc»Vf]hUbb]Ybg`]gh`Yg`k`c`Y]bY`i`bk`U`fgW`Y]b`]W`Y`@Y]ghi`b[ ž  
gc[ Uf`j`]Yf`XYf`g]YVYb` ; ]dZY`ni `VYghY][ Yb` `XYb`9`Vfi`g]b`9`i`fcdUž  
XYb`?]`a`Ub`Ufc`]b`5`Zf`\_Už`XYb`5`W`b`WU[ i`U`]b`GØXUa`Yf`\_U`i`b`X`XYb  
?`cgW]i`gn`c`]b`5`i`ghfU`]Yb``Gc``]W` `X]YgY`i`b`fYU`]gh]gW`Y`Gi`W`Y  
ØVYf`U`i`dh`Zc`fhgY`hnYb`3`gh`Yg`X]Y`NY]hž`XUg` ; Y`X`i`b`X`X]Y`A`Ø`Y  
k`]f`\_]W` `k`Yf`h`3`K`Ybb`]W` `Y]b`K`Y`h`a`Ubb`k`À`fYž`k`ØfXY`]W` `[ Y[ Yb  
a`]W` `k`Y`h`Yb"

8cW` `c`V`k`c`Y`]W` `g]W`Yf`]W` `i`bhYf`XYa` : `i` W` `i` bk`U`fgW`Y]b`]W`Yf`  
Hf`À`i`a`Y` `Y]XYž`[ ]Vh`Yg`h]YZ]b`a` ]f`Y]bYb`<c`Z`bi`b[ g`\_Yfbž`XUgg`]W`  
X]YgYg`N]Y`Y]bYg`HU[ Yg`YffY]W`Yb`k`YfXY``GY`Vgh`k`Ybb`]W` `bi`f`Y]b  
cXYf`nk`Y]k`Y]hYfY`XYf`g]YVYb`Yf`\_]a`a`Yb`k`ØfXYž`k`ØfXY`]W` `a`]W`  
YfZØ`hYf`ZØ`Ybž`k`Ybb`]W` `k`ØggYž`XUgg`]W` `gc`b`U`X`f`Ub`k`Ufž`k`Y  
]W` `\_c`bb`hY" ⇒W` `k`ØfXY`gW` `]Y»`]W` ``]YVYf`Hf`À`i`a`Y` `Y[ Ybž`X]Y`]W`

b]W h j Yfk ]f\_]W Y b 'k YfXYž'U`g' [ Uf'\_Y]bY'ni '\Y[ Yb"

⇒W 'k Y]» ž'Yg' ]gh'\_`]gW Y Y \ U Zhž'UVYf'j ]Y`Y]W h'gh]a a h'XYf'U`hY  
5d\cf]ga i g'k ]f\_]W.' GW]Y» 'bUW'XYa 'A cbX"'GY`Vgh'k Ybb'Xi  
XUbYVYb[ Y\ghž'`UbXYgh'Xi 'nk ]gW Y b 'XYb'GhYfbYb"

'U`h1 Zi W'XYf'i bk U\fgW Y ]b`]W Y b 'hfÅi a Y`d]bhYfYgh 2

@Y]hV]'X.'5h'Ug/ '6cchg

.

8YhU]`g

6Ygi W Y b 'G]Y'i bg'Ui Z.'Y]bY!fY]gY"XY