

; fØbY`9fÒZZbYb`HØf`ni`?cU`h]cbYb.`K Ug  
K À\`Yf`&\$&) `9fk UfhYb`?ÒbbYb

; fØbYb!: fU\_h]cbgWXYZ]b`8fÒ[ Y`Yfk À[ h`bUW`XYf`K U\`&\$&)  
?cU`h]cbYbž`Ui W`a`h`XYf`78I ži bhYf`6YX]b[ i b[ Yb`j cb  
FYgdY`hi bX`JYfhfUi Yb"

⊕`Y]bYf`U`hi Y`Yb`8]g\_i gg]cb`ØVYf`X]Y`a`Ò[ `]WXY  
FY[ ]Yfi b[ gV]`Xi b[ `bUW`XYf`6i bXYghU[ gk U\`]a`⊕\f`&\$&) `U  
X]Y: fU\_h]cbgj`c]g]hnYbXY`XYf`; fØbYbž`?U\`Uf]bU`8fÒ[ Yž`XYi h]W  
[ Ya`UW`hž`XUgg`g]Y`Y]bY`?cU`h]cb`a`h`XYf`i`b]cb`b]W`h`Ui`ggW`]Y»h"  
⊕`Y]bYa`⊕`hYfj`]Yk`a`h`XYf`GØXXYi hgWYb`NY]hi b[ `VYhcbhY`g]Y.  
: Øf`i`bg`]gh`\_Uf.`Gc`[ Y\`h`Yg`]b`Y]bYf`\_ØbZh[ Yb`FY[ ]Yfi b[ `b]W`h  
k`Y]hYf" `8]YgY`5b`\_ØbX][ i b[ `\_ca`a`h]b`Y]bYa`dc`]h]gWYb`?`]a`Už  
XUg`j`cb`]bhYfbYb`GhfY]h][ \_Y]hYb`]bbYf`U`V`XYf`U`hi Y`Yb`5a`dY!  
?cU`h]cb`[ YdfÀ[ h]gh"

8fÒ[ Y`k`]Yg`XUfUi Z`\]bž`XUgg`X]Y; fØbYb`c`ZYb`ZØf`j`YfgW`]YXYbY  
?cbghY`U]cbYb`gY]b`gc`hYb`i`bX`XUgg`Yg`k`]W`h][ `gY]ž`fYgdY`\_hj`c`  
i`bX`j`YfhfUi`Ybgj`c`a`hY]bUbXYf`i`a`ni`[ Y\`Yb`"⊕`fY`5i`ggU[ Yž`XUgg  
b]Ya`UbX`Ui`g[ YgW`c`ggYb`k`]fXž`nY][ h`Y]bY`[ Yk`]ggY: `YI`]V`]h`h`b  
6Yni`[ `Ui`Z`a`Ò[ `]WXY`DUf`h`b`Yf" `8Ug`\_Ubb`Ui`W`VY]`XYf: 8D`i`bX  
GD8`YfZØ`h`gY]b`ž`ZØ`f`h`g]Y`Ubž`i`bX`VYhcbh`[ `Y]W`nY]h][ `Ui`W`X]Y  
A`Ò[ `]W`\_Y]hY]bYf`Ni`gUa`a`YbUfVY]h`a`h`XYf`78I`"

### B Yi Y`dc`]h]gWXY`@UbXgW UZh

8]Y`5bnY]WYb`Y]bYf`k`UW`gYbXYb`J`]Y`ZU`h]b`XYf`dc`]h]gWYb  
@UbXgW UZh`k`YfXYb`Ui`W`Xi`fW`X]Y`K`cfhY`XYg; fØbYb!7\YZg  
Ca`]X`B`ci`f]dci`f`j`Yfgh`f`\_hž`XYf`XUfUi`Z`\]bk`Y]ghž`XUgg`i`a`Ub`b]W`hg  
Ui`ggW`]Y»Yb`\_Ubb`"8]YgY`C`ZYb`Y]h`ZØf`i`bhYfgW`]YX`]WY  
?cU`h]cbYb`\_ØbbhY`]b`XYb`b`AW`ghYb`⊕\fYb`Ub`6YXYi`hi`b[

[ Yk ]bbYbžVYgcbXYfgXU'X]Y'dc`h]gWYb'8mbUa ]\_Yb'ja '@UbX'g]W  
ÅbXYfb" 8]Y'JYfÅbXYfi b[ Yb']b'XYf'DUfhY]Yb'UbXgWUZh'a UWYb  
8fY]Yf\_cbgHY`Uh]cbYb'k U\fgWY]b`]WYf ž'gc' Bci f]dci f"

≠'XYb`YmhYb'A cbUHb' [ UV'Yg']a a Yf'k ]YXYf'GdUbbi b[ Yb  
]bbYf\U'V'XYf'5a dY'!?'cU'h]cbž]bgVYgcbXYfY']b'6Yni [ 'Ui ZXYb  
<Ui g\U'h'ZØf'&\$&) "'H\Ya Yb'k ]Y'X]Y'?]bXYf[ fi bXg]WYfi b[ ž'X]Y  
GW'i 'XYbVfYa gY'i bX'XUg'6Øf[ Yf[ Y'X'\UVYb'VYfY]hg'ni '\YZh][ Yb  
8YVUhhYb' [ YZØ\fh"8]YgY'i bgh]a a ][ \_Y]hYb'XfØW\_Yb'Ui Z'X]Y  
?ccdYfUh]cbgVYfY]hgWUZh'i bX'X]Y'GhUV]`hÅh'XYf'[ Y[ Ybk Åfh][ Yb  
FY[ ]Yfi b[ "

8Yf'J]nY\_Ubn'Yf'i bX'; fØbYb!Dc`h]\_Yf'F cVYfh'<UVYW\_`Ài »YfhY  
g]W'YVYbZU`g'ni f'U\_hi Y`Yb'@U[ Y'i bX'k Ufbhj cf'Y]bYa 'j cfY)][ Yb  
9bXY'XYf'5a dY'!?'cU'h]cb" 9]b`Y]W hZYfh][ Yg'Gd]Y`Yb'a ]h  
BYi k U\`j YfV]YhY'h]g]W ž`Y» 'Yf'j Yf'Ui hYb"9f'UddY`Y]YfhY'Ub'X]Y  
?cU'h]cbgdUfhbYfž'g]W'XYf'JYfUbhk cfhi b[ 'VYk i ggh'ni 'gY]bž'X]Y  
g]Y [ Y[ YbØVYf'XYf'6Yj Ò\_Yfi b[ 'hfU[ Yb" K ]f'\_ØbbYb'i bX'gc`hYb  
hi bž'k Ug'X]Y'A YbgWYb'ni 'FYW'hj cb'i bg'Yfk UfhYb ž'Yf'\_ÅfhY'Yf"

9]b'k Y]hYfYg'nYbhfU'Yg'H\Ya U']gh'X]Y': fU[ Yž'cV'bi f'bYi Y  
?cU'h]cbgdUfhbYf' [ Ybi [ 'g]bXž'i a 'X]Y'VYghY\YbXYb'DfcV'Ya Y'ni  
'ØgYb"<UVYW\_`VYhc bhYž'XUgg'b]Ya UbX'j cfUi ggU[ Yb'\_ØbbYž'k ]Y  
X]Y'dc`h]gWY'@UbXgWUZh'ja 'GYdhYa VYf'&\$&) 'Ui ggY\Yb'k ]fX"≠  
6Yni [ 'Ui Z'gY]bY'Y][ YbY'F c`Y`Y]Y» 'Yf'i b'\_Ufž'cV'Yf'U'g  
?Ubn'Yf\_UbX]XUh'XYf'; fØbYb'UbhfYhYb'a ÒW'hY" 9g[ Y\h'i a 'X]Y  
: fU[ Yž'k Ug'ZØf'Y]b'@UbX'k ]f'gY]b'k c`Yb ž'gU[ hY'Yfž'k Å\fybX'Yf  
X]Y'8]g\_i gg]cb'ØVYf'XYb'K U\`\_Ua dZUi ZY]bYb'gdÅhYfYb  
NY]hdi b\_hj YfgW'cV"

## 8]Y'6YXYi hi b[ 'XYf'8]g\_i gg]cb

8]Y'k ]YXYf\c'hY'8]g\_i gg]cb'ØVYf'X]Y'A Ò[ `]W\_Y]hY]bYf'?cU'h]cb  
a ]h'XYf'78I 'i bhYfghY]W'h'X]Y'Bchk YbX][ \_Y]h'Y]bYf'ghfUhY[ ]gWYb  
BYi Ui gf]W'hi b[ ']bbYf\U'V'XYf'; fØbYb": Øf'X]Y'K Å\Yf'i bX  
I bhYfghØhnYf']gh'Yg'YbhgWY]XYbXž'X]Y'F ]W'hi b[ 'ni 'j YfghY\Ybž']b  
X]Y'g]W'X]Y'DUfhY]VYk Y[ Yb'a ÒW'hYž'i bX'k ]Y'g]Y'\fY'dc`h]gWYb  
N]Y'Y'j Yfk ]f\_]WYb'\_Ubb"

ϕ·Y]bYa 'g]W'ghAbX][ 'k UbXY`bXYb`dc`h]gW'Yb`l a ZY`X`\_ÖbbhY  
Y]bY`Ni gUa a YbUfVY]h'a ]h'XYf`l b]cb`bYi Y`7\UbW'V]YhYbž`i a  
[ Ya Y]bgUa Y`@Ögi b[ Yb`ZÖf`XfÄb[ YbXY`DfcV`Ya Y`ni `Z]bXYb`"·9g  
V`Y]Vh`YXcW`UVni k UfhYbž`k ]Y`X]Y`]bhYfbYb`GdUbbi b[ Yb  
]bbYf\U`V`XYf`5a dY`!`?cU`h]cb`[ Y`Ögh`k YfXYb`i bX`]bk ]Yk Y]h`X]Yg  
XYb`<UbX`i b[ ggd]Y`fUi a `XYf`; fØbYb`VYY]bZi ggh"·8]Y  
\_ca a YbXYb`A cbUhY`k YfXYb`YbhgW'Y]XYbX`gY]bž`i a `X]Y  
k U\fgW'Y]b`]W'Yb`5i gk ]f`\_i b[ Yb`X]YgYf`; YgdfÄW'Y`Ui Z`X]Y  
bÄW'ghY`6i bXYghU[ gk U\`ni `\_'ÄfYb"

ϕ·XYb`YhnhYb`ϕ\`fYb`\UVYb`g]W`X]Y`dc`h]gW'Yb`@UbXgW'UZhYb`]b  
8Yi hgW`UbX`i bX`9i fcdU`[ Yk UbXY`h"·8]Y`; fØbYb`U[ ]YfYb`bi b`]b  
Y]bYa `?`]a Už`XUg`j cb`j YfgW]YXYbYb`<YfUi gZcfXYfi b[ Yb  
[ YdfÄ`h]ghž`k ]Y`XYa `?`]a Uk UbXY`ž`XYf`9bYf[ ]Y`\_f]gY`i bX`XYb  
gcn]U`Yb`l b[ `Y]W`\Y]hYb`"·5`X]YgY` : U`hc`fYb`VYY]bZi ggYb`b]W'h  
bi f`X]Y`F`Y[ ]Yfi b[ gV]`Xi b[ ž`gcbXYfb`Ui W`X]Y`Dcg]h]cb]Yfi b[  
dc`h]gW'Yf`DUfhY]Yb`]b`6Yni [ `Ui Z`?cU`h]cbYb`"Gc`k ]fX`X]Y  
: Ä\][ \_Y]h`XYf`; fØbYbž`?cU`h]cbYb`ni `V]`XYbž`ghUf`\_j cb`]fYa  
dc`h]gW'Yb`7fYXc`i bX`XYb`Df]cf]hÄhYb`XYf`dchYbn]Y`Yb`DUfhbYf  
VYY]bZi ggh"

## 8]Y`J`YfÄbXYfhY`dc`h]gW'Y`@UbXgW'UZh

Dc`h]gW`[ YgY\Yb`\Uh]g]W`X]Y`F`c`Y`XYf`; fØbYb`ØVYf`X]Y`ϕ\`fY  
Yf\YV`]W`Yb`hk ]W`\_Y`h"l fgdfØb[ `]W`U`g`l a k Y`hdUfhY][ ]Y[ fØbXYhž  
\UVYb`g]Y`]\fY`5[ YbXU`Ui Z`gcn]U`Y`; YfYW'h][ \_Y]hž`; `Y]W'ghY`i b[  
i bX`B`UW`\U`h][ \_Y]h`Ui g[ Yk Y]hYh"·8]YgY`HfUbgZcfa`Uh]cb`gd]Y[ Y`h  
g]W`Ui W`]b`]\fYf`6YfY]hgW'UZh`k ]XYfž`a ]h`DUfhY]Yb`ni  
\_ccdYf]YfYbž`X]Y`hfUX]h]cbY`i bhYfgW]YX`]W'Y`X`Yc`c[ ]Yb  
j`YfhfYhYb`"·ϕ`6Yni [ `Ui Z`X]Y`l b]cb`\_ÖbbhY`Y]bY`gc`W'Y  
?ccdYfUh]cb`]a `?cbhYl`hj`cb`H\Ya`Yb`k ]Y`?`]a UgW'i`hn`i bX  
k ]fhgW'UZh]W'Yf`GhUV`]hÄh`VYhfUW'hYh`k YfXYb`"·8]Y`78l`\_`Uh]b`XYf  
J`Yf[ Ub[ Yb\Y]h`Ui W`Y]b`[ Yk ]ggYg`ϕ`hYfYggY`Ub`Ö`c`c[ ]gW'Yb  
: fU[ Yb`[ YnY][ hž`VYgcbXYfg]b`NY]hYbž`]b`XYbYb`l a k Y`hdc`h]\_  
Ui W`k ]fhgW'UZh]W'Y`J`cfhY]`Y`j`Yfgdf]W'h"

8]YgY`8]ZYfYbn]Yfi b[ `]b`XYb`Dcg]h]cbYb`\_ÖbbhY`X]Y`A`Ö[ `]W`\_Y]h  
j`cb`ni`\_ØbZh][ Yb`?cU`h]cbYb`ZÖfXYfbž`gc`Ub[ Y`X]Y`VYhY][ ]hYb

DUfhY]Yb`VYfY]h'g]bXž'g]W\`Ui Z[ fi bX`Y[ YbXY`Df]bn]d]Yb`ni`Y]b][ Yb`

## 5\_hi Y`Y`9b hk ]W\_`i b[ Yb`]b`XYf`K Å\`YfgW UZh

8]Y`K Å\`YfgW UZh`XYf`; fØbYb`\Uh'g]W\`]b`XYb`YhnhYb`d\`fYb  
YVYbZU`g[ Yk UbXY`h"Øb[ ghY`l a ZFU[ Yb`Y[ Yb`bU\YžXUgg`j cf  
U`Ya`Øb[ YfY`K Å\`Yf`gck ]Y`ghÅXh]gW\`Y`K Å\`YfgW UZhYb  
ni bY\`a YbX`X]Y`6chgW UZhYb`XYf`; fØbYb`i bhYfghØhYb"Ø`Y]bYf  
\_Øfn`]W\`Xi fW\`[ YZØ\`fhYb`l a ZFU[ Y`j`cb`: cfgU`gh]a a hYb`&(i`XYf  
6YZFU[ hYb`ZØf`X]Y`; fØbYb`ž`k Ug`Y]bYb`5bgh]Y[ `]a`J`Yf[ `Y]W\`ni`XYb  
j`cf\`Yf][ Yb`K U\`nm\_`Yb`XUfghY`h"8]YgY`l bhYfghØhni b[ `\_ØbbhY  
Y]bY`Yb`hgW\`Y]XYbXY`F`c`Y`VY]`XYb`ghfU`hY[ ]gW\`Yb`9b`hgW\`Y]Xi b[ Yb  
XYf`DUfhY]`]a`J`cfZY`X`XYf`\_ca`a YbXYb`6i bXYghU[ gk U\`gd]Y`Yb`  
8i fW\`XUg`dcg]h]j`Y`K Å\`YfZYXVUW`g]bX`g]Y`a`Ø[ `]W\`Yfk`Y]gY  
a`ch]j`]YfhYfž`U`g`j`Yfa`i`hYhž`ZYI`]V`Y`?`cU`h]cbgUb[ YV`chY`ni  
Yj`U`i`]YfYb`ž`i`a`]\`fY`dc`h]gW\`Yb`N]Y`Y`Ui`W\`]b`Y]bYf`gW\`k`]Yf][ Yb  
FY[ ]Yfi b[ gi a [ YVi b[ `Xi fW\`ni`gYhYb`"

8]Y`; fØbYb`ghY\`Yb`j`cf`XYf`<`YfUi`gZc`fXYfi b[ ž]\`fY  
?`Yfbk Å\`YfgW UZh`b]W\`h`ni`j`Yf`]YfYb`ž`k Å\`fYbX`g]Y`[ `Y]W\`nY]h][  
cZYb`ZØf`J`Yf\`UbX`i b[ Yb`g]bX"8]Y`6U`UbW`nk ]gW\`Yb`X`Yc`c[ ]Y  
i bX`dfU`\_h]gW\`Yf`Dc`h]\_`k`]fX`Yb`hgW\`Y]XYbX`g]Y]b`ž`i`a`\_ØbZh][ Y  
K U\`\_cU`h]cbYb`YfZc`[ fY]W\`ni`[ YghU`hYb`"

8YhU]`g

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