

9b hXYW\_Y b`G]Y`X]Y`<Y]a Uh[ YgW ]W hY.  
A i gYYb`]b`7U`Ui`ÒZZbYb`] \fY`HØfYb

<Y]a Uha i gYi a`i bX`<Ui g`XYf`<Y]a Uh[ YgW ]W hY`]b`7U`Ui  
ÒZZbYb`a`]hkcWgž`%\$!`%&`l` \fž`a`]h`5i gghY``i b[ Yb`ni f  
GhUXh[ YgW ]W hY`i bX`7Uf`5bk UbXhYf"

⊕`XYf`GhUXh`7U`Ui ž]a`@UbX`\_fY]g`C VYfgd fYYk U`X!@Ui g]hž`ÒZZbYb  
nk Y]`VYXYi hYbXY`9]bf]W hi b[ Yb`] \fY`HØfYb`ZØf`]bhYfYgg]YfhY  
6Ygi WYf`"8Ug`<Y]a Uha i gYi a`i bX`XUg`<Ui g`XYf  
<Y]a Uh[ YgW ]W hY``UXYb`YXYb`A`]hkcW`j`cb`%\$`V]g`%&`l` \f`ni  
Y]bYa`6Ygi W`Y]b`"8]YgY`A i gYi a`gVYgi WY`V]YhYb`Y]bY  
\Yfj`c ffU[ YbXY` ; Y`Y[ Yb`Y]hž`a`Y`f`ØVYf`X]Y`\_i`hi fY`Yb`i bX  
\]ghc f]gW Yb`<]bhYf[ fØbXY`XYf`FY[ ]cb`ni`YfZU`fYb"

8Ug`<Y]a Uha i gYi a` \Uh`gY]bYb`G]hn`]b`XYf`U`hYb`A`AXWYbgW`i`Yž  
Y]bYa`WUfa`UbhYb` : UWk Yf`\_`Ui gž`XUg`%+, -`YfVUi`h`k`i`fXY`"⊕  
X]fY`\_hYf`BUW`VUfgW`UZh`ni`f`GhUXh\_]fW`Y`VY`YfVYf[ h`XUg`A i gYi a  
nU`fY]WY` \]ghc f]gW Y`5fhY`ZU`\_hY`ž`X]Y`XUg`fY]WY`9fVY`i`bX`X]Y  
9bhk`]W`\_i`b[ `7U`Ui`VY`Yi`W`hYb`"6YgcbXYfg` \Yfj`c fni` \YVYb`g]bX  
5i`g[ fUVi`b[ gž`bXgh`ØW`Yž`X]Y`V]g]b`X]Y` : fØ` \[ YgW ]W hY  
ni`fØW`fY]W Yb`ž`gck`]Y`Ni`bZh[ Y[ Ybgh`ÅbXYž`X]Y`X]Y  
<UbXk`Yf`\_g`\_i`bgh`XYf`GhUXh`Xc`\_i`a`Ybh]YfYb`"9]b`gdUbbYbXYf  
6YfY]W`]a`A i gYi a`]gh`X]Y`GW`i`ghYfYW`\_Yž`k`c`X]Y`5fVY]h`j`cb  
j`YfgW`]YXYbYb`GW`i` \a`UW`Yfb`Ub`gW`Ui` `]W`XUf[ YghY`h`k`]fX"

9]bV`]W\_Y`]b`X]Y` ; YgW ]W hY

⊕`<Ui g`XYf`<Y]a Uh[ YgW ]W hY`ž`XUg`YVYbZU`g`ni`f`9f`\_i`bXi`b[  
Y]b`ÅXhž`k`]fX`XYa`VYXYi`hYbXYb`Gc` \b`XYf`GhUXhž`7Uf`5bk`UbXhYfž  
Y]bY`Y][ YbY`8Ui`YfUi`gghY``i`b[ `[ Yk`]Xa`Yh`5bk`UbXhYf`k`Uf`b]W`h  
bi`f`Y]b` \YfUi`gfU[ YbXYf`6Øf[ Yf`7U`Ui`ž`gcbXYfb`Yf`k`UbXhY`g]W

Ui W\XYa 5VYbhYi YfXYf5i gk UbXYfi b[ bUW J U\X]j ]U]b 7\Y  
ni "8]Y5i gghY`i b[ [ Yk A\fhXYb6Ygi WYfbY]bYb`h]YZYb9]bV]W  
]b`gY]b@VYb`i bX`X]Y<YfUi gZcfXYfi b[ Ybž`X]Y`a ]hgY]bYf  
5i gk UbXYfi b[ j YfVi bXYb`k UfYb"BYVYb`X]YgYf`nYbhfU`Yb  
5i gghY`i b[ `cf[ Ub]g]YfhXYf<Y]a Uhj YfY]b7U`Ui `Y"J"fy[ Y`a A»][  
h\Ya Uh]gWXY`GcbXYfUi gghY`i b[ Ybž`X]Y`k Y]hYfY: UW`hhYb`XYf  
fY[ ]cbU`Yb`; YgW]W`hY`VY`Yi W`hYb"BA\YfYg`XUni `Z]bXYh`a Ub`Ui Z  
]\fYf`K YVgY]hY`i bhYf`k k k "\Y]a Uhj YfY]b!WU`Ui "XY"

K A\fybX`XYf`fY[ i`ÀfYb`2 Zbi b[ gnY]hYb`g]bX`X]Y`9]bf]W`hi b[ Yb  
[ i h`VYgi W`hž`i bX`Yg`c`b`h`g]W`ž`Y]bYb`6Ygi W`Y]bni d`UbYbž`i a`]b  
X]Y`; YgW]W`hY`XYf`F`Y[ ]cb`Y]bni hUi W`Yb`i bX`]bhYfYggUbhY  
8YhU]g`ØVYf`ZfØ\YfY`NY]hYb`ni `Yb`hXYW`Yb"9]b`5bfi Z`VY]`XYf  
Ub[ Y[ YVYbYb`HY`YZcbbi a`a`Yf`\_ØbbhY`Ui W`g]bbj c``gY]bž`i a  
gdYn]Z]gWXY: fU[ Yb`ni `XYb`5i gghY`i b[ Yb`cXYf`5\_hj] h`hYb`]a  
<Y]a Uha i`gYi a`ni `ÀfYbž`XU`Yg]a `A`ca`Yb`\_Y]bY`ZYghYb  
2 Zbi b[ gnY]hYb`[ ]Vh"

## ? cbhU\_h`i bX`J YfUbghU`hi b[ gc fh

8]Y`5XfYggY`XYg`<Ui`gYg`XYf`<Y]a`Uh[ YgW]W`hY`]gh`5a`]; Yf]W`h  
%(ž`\$`&\$)`7U`Ui`"6Ygi`W`Yf`\_ØbbYb`Xi`fW`X]Y`5i`gghY`i`b[ Yb  
gW`YbXYfb`i`bX`X]Y`J]Y`ZU`hi`bX`H]YZY`XYf`\]ghcf]gW`Yb`9i`dcbUhY  
Yf`YVYb": Øf`k`Y]hYfY`bZcfa`Uh]cbYb`]gh`XYf`<Y]a`Uhj`YfY]b`7U`Ui  
Y`J"ni`gh`AbX][ž`XYf`i`bhYf`f\$`)(`%L`,`%`((`\$)`\_cbhU\_h]Yfh`k`YfXYb  
\_Ubb"5`[ Ya`Y]bY`bZcfa`Uh]cbYb`V]YhYb`Ui`W`X]Y`K`YVgY]hYž`X]Y  
b]W`h`bi`f`Y]bYb`,`VYfV`]W`ØVYf`X]Y`A`i`gY`b`]YZYfhž`gcbXYfb`Ui`W  
ØVYf`VYj`cfghY`YbXY`J`YfUbghU`hi`b[ Yb"

8]Y`6YXYi`hi`b[ `X]YgYf`A`i`gY`Yb`ZØf`X]Y`GhUXh`7U`Ui`[ Y`h`ØVYf`X]Y  
5i`gghY`i`b[ `j`cb`; Y[ Ybgh`AbXYb`\]bUi`g/g]Y`fYdf`AgYbh]YfYb`Y]bY  
`YVYbX][Y`9f]bbYfi`b[ g\_i`hi`fž`X]Y`gck`c`\`X]Y`9]bk`c`bYf`U`g`Ui`W  
Hci`f]ghYb`Ub`gdf]W`h"9g]ghY]bY`k`i`bXYfVUfY`; Y`Y[ Yb`Y]hž`g]W  
a`]h`XYf`c`\_U`Yb`; YgW]W`hY`]Y`fhfUi`hini`a`UW`Yb`i`bX`X]Y  
9bhk`jW`i`b[ `XYf`GhUXh]a`?cbhYi`hj`cb`\UbXk`Yf`]W`Yb  
HfUX]h]cbYbž`gcn]U`Yb`J`Yf`AbXYfi`b[ Yb`i`bX`XYa`@VYb`gk`Y[  
]bX]j`]Xi`Y`Yf`DYfgØb`]W`\_Y]hYb`k`]Y`7Uf`5bk`UbXhYf  
bUW`ni`j`c``n]Y`Yb"

8]Y`Ui ZYbXYb`5i gghY`i b[ Yb`i bX`X]Yg`k ÖWYbh]WXY`5b[ YVch  
ni a`² ZbYb`XYf`HØfYb`g]bX`Y]b`NY]WXYb`ZØf`XUg`9b[ U[ Ya Ybh`XYg  
<Y]a Uhj YfY]bgž`XUg`\_i`hi fY`Y`9fVY`ni`VYk U\`fYb`i bX`Yg`a ]h  
UbXYfYb`ni`hY]`Yb`"9g`]gh`Y]b`K Yfhž`XYf`b]W`h`bi`f`X]Y  
[ Y[ Ybk`Åfh][ Y` ; YbYfUh]cb`Ubgd]W`hž`gcbXYfb`Ui W`XUni`VY]hfÅ[ hž  
X]Y` ; YgW]W`hY`ZØf`ni`\_ØbZh][ Y` ; YbYfUh]cbYb`YVYbX][`ni`U`hYb`"

CV`U`g`9]b\`Y]a ]gWXYf`cXYf`U`g`6Ygi WXYf``X]Y`9f`\_i bXi b[ `X]YgYf  
\]ghc]g]WXYb`GhÅhYb`V]YhYh`b]W`h`bi`f`K ]ggYbž`gcbXYfb`Ui W`X]Y  
A Ö[ `]W`\_Y]hž`X]Y`Y][ YbY`J YfV]bXi b[ `ni`f` ; YgW]W`hY`ni`ghÅf`\_Yb  
i bX`ni`j YfghY\`Ybž`k ]Y`X]Y`J Yf[ Ub[ Yb\`Y]h`X]Y` ; Y[ Ybk Ufh`d`fÅ[ h`

8]Y`6YXYi hi b[ `j cb`7Uf``5bk UbXhYf`ZØf  
7U`Ui`i bX`7\`]Y

7Uf`5bk UbXhYf`k Uf`Y]bY`GW`ØggY`Z][ i`f`ZØf`X]Y`9bhk ]W`\_i b[ `j cb  
7U`Ui`i bX`gY]bYf`5i gk UbXYfi b[ g[ YgW]W`hY`bUW`7\`]Y`" ; YVcfYb  
]a``X\`f`%`%`]b`7U`Ui`ž`k Uf`5bk UbXhYf`b]W`h`bi`f`i`bhYfbY\`a`Yfž  
gcbXYfb`Ui W`Y]b`J]g]cb`Åfž`XYf`[`fc»`Y`Hf`Åi`a`Y`\`Y[`hY`"GY]bY  
5i gk UbXYfi b[ `]a``X\`f`%` )`%`ZØ\`fhY`ni`f` ; fØbXi b[ `Y]bYf  
XYi hgWYb`?`c`cb]Y`]b`J`U`X]j ]Už`7\`]Yž`k`c`Yf`a`U»[ YV`]W`ni`f  
9bhk ]W`\_i b[ `XYf``bZfUghfi`\_hi`f`i`bX`@UbXk ]fhgW`UZh`VY]hfi [ `"  
5bk UbXhYfg`9b[ U[ Ya Ybh`\`U`ZXUVY]ž`X]Y`J YfV]bXi b[ `nk ]gWYb  
7U`Ui`i bX`J`U`X]j ]U`ni`Z`Ygh][ Ybž`k Ug`V]g`\`Yi`hY`]b`XYb`\_i`hi`fY`Yb  
5i ghUi gW`nk ]gWYb`VY]XYb`GhÅXhYb`g]W`hVUf`]gh`"

≠`XYf`8Ui YfUi gghY`i b[ `k ]fX`gY]bY`F`c`Y`gck`c`\`i]b`XYf  
<Y]a UhghUXh`U`g`Ui W`]b`gY]bYf`K U\`\`Y]a Uh`b`Å\`Yf`VY`Yi W`hYh`"  
8Yf`6Ygi W`X]YgYf`5i gghY`i b[ `V]YhYh`b]W`h`bi`f`Y]bYb`9]bV`]W`\_]b  
gY]bY`@YVYbg[ YgW]W`hY`ž`gcbXYfb`Ui W`]b`X]Y`XUa`U`][ Yb  
[ YgY`gW`UZh`]WXYb`i bX`k ]fhgW`UZh`]WXYb`6YX]b[ i b[ Ybž`i`bhYf  
XYbYb`5i gk UbXYfYf`9bhgWY]Xi b[ Yb`hfYZZYb`a`i`gghYb`"

8]Y`F`c`Y`XYg`<Y]a Uhj YfY]bg`7U`Ui`Y`J`"

8Yf`<Y]a Uhj YfY]b`7U`Ui`Y`J`""]gh`Y]b`nYbhU`Yf`5`\_hYi`f`]b`XYf  
6Yk U\`fi b[ `i bX`Df`ÅgYbhUh]cb`XYf`fY[ ]cbU`Yb` ; YgW]W`hY`"8Yf`

J YfY]b`cf[ Ub]g]Yfh`b]W`h`bi f`5i gghY`i b[ Yb`]a`<Ui g`XYf  
<Y]a Uh[ YgW ]W`hYž`gcbXYfb`ZØ\fh`Ui W`j ]Y`Z`h][ Y  
J YfUbghU`hi b[ Yb`Xi fW`ž`X]Y`XUg`\_i`hi fY`Y`9fVY`XYf`FY [ ]cb  
ZØfXYfb`"8i fW`6]`Xi b[ gdfc`Y`\_hY`i bX`?ccdYfUh]cbYb`a` ]h`GW`i`Yb  
i bX`UbXYfYb`≠gh]hi h]cbYb`k`]fX`XUg`6Yk`i gghgY]b`ZØf`X]Y`c`\_U`Y  
; YgW ]W`hY`i bX`⇒Yb]h`h`[ Ygh`f`\_h`

8 UfØVYf`\]bUi g`ZØfXYfh`XYf`<Y]a Uhj YfY]b`XYb`5i ghUi gW`  
nk ]gW`Yb`XYb`; YbYfUh]cbYb`i bX`Yf`\`h`k`Yfhj`c`Yg`\]ghcf]gW`Yg  
K ]ggYb`"8]YgY`≠]h]Uhj`Yb`g]bX`Yb]hgW`Y]XYbX`ZØf`X]Y  
\_cbh]bi ]Yf`]W`Y`DZY[ Y`XYf`\_i`hi fY`Y`b`K`i fnY`b`XYf`GhUXhi bX  
V]YhYb`XYb`6Øf[ Yfb`j`cb`7U`Ui`X]Y`A`Ø[ `]W`\_Y]hž`Y]bYb`h]YZYb  
9]bV`]W`\_]b`]\fY`; YgW ]W`hY`ni`[ Yk`]bbYb`

6 Ygi W`Yf]bZcfa Uh]cbYb`i bX`ni`\_ØbZh][ Y  
J YfUbghU`hi b[ Yb`

Ni g`h`n`]W`ni`XYb`fY[ i`h`fYb`² Zbi b[ gnY]hYb`Ua`A`]h`k`cW`j`cb`%\$  
V]g`%&`i` \f`d`Ubh`XYf`<Y]a Uhj YfY]b`j`YfgW ]YXYbY  
GcbXYfj YfUbghU`hi b[ Yb`i bX`h`Ya`Uh]gW`Y`5i gghY`i b[ Yb`ž`X]Y`Ui`Z  
X]Y`≠\fYgnY]hYb`cXYf`VYgcbXYfY`5b`h`ggY`UV[ Ygh]a`a`h`g]bX`  
≠hYfYgg]YfhY`6Ygi W`Yf`\_ØbbYb`g]W`Y`XYfnY]h`ØVYf`X]Y`bYi`YghYb  
9b`k`]W`\_i`b[ Yb`i bX`5b[ YVchY`Ui`Z`XYf`K`YVg]hY`XYg  
<Y]a Uhj YfY]bg`7U`Ui`Y`"J`""]bZcfa ]YfYb`

: Øf`GW`i`Yb`i bX`; fi ddYb`V]YhYh`XYf`<Y]a Uhj YfY]b`Ui`W`gdYn]Y`Y  
: Ø\fi b[ Yb`Ubž`X]Y`Ui`Z`X]Y`6YXØfZb]ggY`XYf`Yk`Y`][ Yb`N]Y`[ fi ddY  
ni`[ YgW`b]h`hYb`g]bX`"8]Yg`gW`UZZh`b]W`h`bi f`6]`Xi b[ gk`YfhYž  
gcbXYfb`ZØfXYfh`Ui`W`XUg`; Ya`Y]bgW`UZh]g[ YZØ`\`]bbYf`U`V`XYf  
GhUXhi bX`]fYf`I`a`[ YVi`b[`"

8 YhU]`g

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