

A Ø`UVZi \ f`]b`F Yi h`b[ Yb.`6]chcbbY`bi f  
U`Y`nk Y]`K cWXYb`[ Y`YYfh

K Y[ Yb`DYfgcbU`a Ub[ Y`k ]fX`X]Y`6]chcbbY`]b`F Yi h`b[ Yb`ZØf  
nk Y]`K cWXYb`bi f`U`Y`nk Y]`K cWXYb`[ Y`YYfh"H]ddg`ni f  
5VZU`Ybhgc f[ i b[ "

DYfgcbU`Yb[ dUgg`]b`XYf`A Ø`UVZi \ f.  
5i gk ]f\_ i b[ Yb`Ui Z`X]Y`l a k Y`h

GhUbX.`\$, "\$, "&( '\$-. ) ( `l \ f

7 \ f c b]gWXY`DYfgcbU`\_bUdd\Y]h`]b`F Yi h`]b[ Yb

⇒ `@UbX\_fY]g`F Yi h`]b[ Yb`nY]W`bYh`g]W`Y]bY`VYgc f[ b]gYffY[ YbXY  
@U[ Y`]b`XYf`A Ø`UVZi \ f`UV"5i Z[ fi bX`j cb`\_fUb\_\Y]hgVYX]b[ hYb  
5i gZ`Yb`i bX`l f`Ui Vgj YfhfYhi b[ Yb`]gh`X]Y`8i fW`ZØ\ fi b[ `XYf  
fY[ i `ÄfYb`6]chcbbYb`YYfi b[ `Yf\YV`]W`Y]b[ YgW`fÄb`\_h"8]YgY  
G]hi Uh]cb`\_Ubb`k Y]hfY]W`YbXY` : c`[ Yb`ZØf`l a k Y`hi bX`5bk c\ bYf  
\UVYb"

J YfÄbXYfhY`@YYfi b[ g\Äi Z][ \_Y]h

5V`XYa`\_ca a YbXYb`A cbhU[ ži bk Y]h`XYf`ghÄXh]gW`Yb`NYb`hfYb  
F Yi h`]b[ Yb`ž`A Yhm]b[ Yb`i bX`DZi` ``]b[ Yb`ž`k ]fX`ZØf`Y]bYb`NY]hfUi a  
j cb`nk Y]`K cWXYb`X]Y`6]chcbbY`bi f`]b`XYf`K cWXY`[ Y`YYfhž`]b`XYf  
Ui W`XYf`F Ygha Ø`UV[ Y\c`h`k ]fX"8]Yg`ZØ\ fh`ni `Y]bYf`J YfX]W`hi b[  
XYf`5VZU`Ybhgc f[ i b[ `i bX`\_Ubb`]b`j ]Y`Yb`<Ui g\U`hYb`ni  
9b[ dÄggYb`]b`XYf`5VZU`hfYb`bi b[ `ZØ\ fYb"

9a dZY\`i b[ Yb`XYf`@UbX\_fY]gj Yfk U`hi b[

5b[ Yg]W\hg`XYf`Y]b[ YgW\ fÅb`\_hYb`@YYfi b[ `Ya`dZ]Y\`h`X]Y  
@UbX\_fY]gj Yfk U`hi b[ `XYb`6Øf[ Yf]bbYb`i bX`6Øf[ Yfbž  
ØVYfgW\Øgg][ Yb`6]cUVZU``]b`NY]hi b[ gdUd]Yf`ni`k` ]W\_Y`b`i bX  
j`cfØVYf[ Y\YbX`ni`U[ Yfb``5i » YfXYa`\_`ØbbYb`5bk`c\`bYfž`X]Y  
ØVYfa`U» ][ Yb`; fØbgW\ b]h\`UVYbž`X]YgYb`\_c`ghYb`ZFY]`Ui`Z`XYb  
Øfh]W\Yb`<`ÅW\_gY`d`ÅhmYb`Ybhgc f[ Yb``8]YgY`9a`dZ\`i`b[ Yb`g]bX  
YggYbn]Y``ž`i`a`X]Y`<`m[ ]YbY`i`bX`X]Y`l`a`k`Y`h`j`YfhfÅ[ `]W\`\_Y]h]b`X`Y`b  
VYhfc`ZY`b`Y`b`; YV]YhYb`Ui`ZFYW\hni`Yf\`U`h`Y`b"

## 8]Y`6YXYi`hi`b[ `XYf`6]c`h`c`b`b`Y`ZØf`X]Y`l`a`k`Y`h`

8]Y`6]c`h`c`b`b`Y`gd]Y`h`Y]b`Y`n`Y`b`h`f`U`Y`F`c``Y`]a  
5VZU``k`]f`hg`W\`U`Z`hg`gm`gh`Y`a`ž`X`U`g]Y`c`f[ `Ub]g`W\`Y`5V`ZÅ``Y`]b`K`Y`f`hg`h`c`Z`Z`Y  
i`a`k`Ub`X`Y`h`i`b`X`g`c`a`]h`ni`f`F`Y`X`i`n]Y`fi`b[ `j`c`b`A`Ø``a`Y`b[ Y`b`Ui`Z  
8Y`d`c`b]Y`b`V`Y]h`fÅ[ h``8`U`g`j`c`f`Ø`V`Y`f[ Y\Y`b`X`Y`5i`gg`Y`h`n`Y`b`X`Y`f  
f`Y[ Y`a`Å» ][ Y`b`@`Y`Y`fi`b[ Y`b`\_`Ø`b`b`h`Y`b]W\`h`i`b`i`f`X]Y`5V`U[ Y`fi`b[ Y`b  
Y`f`\`Ø`Y`b`ž`g`c`b`X`Y`f`b`Ui`W`b`Y[ U`h]j`Y`5i`g`k`]f`\_i`b[ Y`b`Ui`Z`X`U`g`?`a`U`ni`f  
:`c`[ Y`\`UV`Y`b`ž`k`Y`b`b`5V`ZÅ``Y`b]W\`h`\_c`f`f`Y`\_`h`j`Y`f`U`f`V`Y]h`Y`h`k`Y`f`X`Y`b``8`Y`f  
l`a`[ `Ub[ `a`]h`X]Y`g`Y`b`i`f`U[ Y`b`Z`c`f`X`Y`f`h`j`c`b`X`Y`f`; Y`a`Y]b`g`W\`U`Z`h`Y]b  
\`c`\`Y`g`A`U» `Ub`J`Y`f`U`b`h`k`c`f`h`i`b[ "

## GW\`i`gg`Zc`[`Y`fi`b[`

8]Y`U`\_`hi`Y``Y`G]hi`U`h]c`b`i]b`F`Y`i`h]b[ Y`b`j`Y`f`X`Y`i`h]W\`h`X]Y  
<`Y`f`U`i`g`Z`c`f`X`Y`fi`b[ Y`b`ž`X`Y`b`Y`b`X]Y`5V`Z`U``k`]f`hg`W\`U`Z`h]b`N`Y]h`Y`b`j`c`b  
D`Y`f`g`c`b`U`a`Ub[ Y``[ Y[ Y`b`Ø`V`Y`f`g`h`Y`\`h``9`g`]g`h`k`]W\`h][ ž`X`U`g`g`g`c`k`c`\`X]Y  
J`Y`f`k`U`h`i`b[ Y`b`U`g`U`i`W\`X]Y`6`Ø`f[ Y`f`ni`g`U`a`a`Y`b`U`f`V`Y]h`Y`b`ž`i`a  
@`Ø`gi`b[ Y`b`ni`Z]b`X`Y`b`i`b`X`X]Y`i`c`[ Y`b`Y]b`Y`f`g`d`c`f`U`X]g`W\`Y`b  
6]c`h`c`b`b`Y`b`Y`Y`fi`b[ `U`V`ni`a`]b`X`Y`f`b``9]b`g`h`U`f`\_`Y`g`l`a`k`Y`h`V`Y`k`i`g`g`h`g`Y]b  
]g`h`Y`f`Z`c`f`X`Y`f`]W\`ž`i`a`X]Y`b`U`h`Ø`f`]W\`Y`@`Y`V`Y`b`g`e`i`U`]h`Å`h]b`X`Y`f`F`Y[ ]c`b  
[ Y`k`Å`\`f`Y]g`h`Y`b`ni`\_`Ø`b`b`Y`b"

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