

K Y]a Uf`ZY]Yfh`A i g]\_`i bX`HUbn.`9]b  
i bj Yf[ Ygg`]W\Yf`5VYbX`]a `?i bghZYgh

9f`YVYb`G]Y`VY]a `?i bghZYgh`K Y]a Uf`Y]bY`]bbcj Uh]j Y  
5i ZØ\fi b[ `j cb`CfZzg` 7Ufa ]bU`Vi fUbU `i bX`H\Y`Dc`]W\`  
?`Ugg]\_Yfb`i bhYf`7cdY`UbX"

8]Y`UhYa VYfUi VYbXY`?i `]ggY`XYf`K Y]a Uf`U`Y`i bX`X]Y  
ghfU\`YbXY`5VYbXgcb`bY`V`]XYhYb`XYb`dYfZY`\_hYb`F`U\`a`Yb`ZØf`Y]b  
5VYbX`j`c`Yf`A i g]\_`i bX`HUbn`VY]a `X]Yg`Å\`f][`Yb`?i bghZYgh]b  
K Y]a Uf`"8 Ug`Y\`fk ØfX][`Y`:`Ygh`nc[ `nU\`fY]W\Y`6Ygi W\Yf`Ui`g`bU\  
i bX`ZYfb`Ubž`X]Y`VY]`Ui`g[`Y`UggYbYf`Gh]a`a`i`b[ `Ui`Z`XYb`HYffUggYb  
i bX`F`UgYb`ZÅW\Yb`j`YfgUa`a`Y`h`k`UfYb`"8]Y`5`ha`cgd\`ÅfY`k`Uf  
Xi`fW`Xfi`b[`Yb`j`cb`Y]bYf`A`]gW\i`b[ `Ui`g`BYi`[`]Yf`i`bX`J`cfZfYi`XYž  
k`Å\`fYbX`]g]W\`Y]b`Vi`bhYg`Di`V`\_]i`a`ž`XUfi`bhYf`j`]Y`Y`Dfca`]bYbhY  
XYf`K Y]a UfYf`A i g]\_`c`W`gW\i`Yž`j`YfgUa`a`Y`hY`"GY]bYb  
<Ø\Ydi`b`\_h`ZUbX`X]Y`J`YfUbghU`hi`b[ `a`]h`Y]bYf`ϕgnYb]Yfi`b[`ž`X]Y  
a`]h`]\`fYb`W\`UfU`\_hYf]gh]gW\Yb`?`Åb[`Yb`i`bX`YVYbX][`Yb  
8UfV]Yhi`b[`Yb`9f]bbYfi`b[`Yb`Ub`j`Yf[`Ub[`YbY`9dcW\Yb`k`YW`\_hY"

6YgcbXYfg`\Yfj`cfni`YVYb`k`Uf`XYf`5i`Zh]h`h`XYg`A`i`h]!;`Yb]Yg  
7cdY`UbXž`XYf`b]W\`h`bi`f`U`g`8]f][`Yb`h`Ui`Zh`U`hž`gcb`XYfb`Ui`W\`U`g  
Y\`Ya`U`][`Yf`A`]h[ `]YX`XYf`Y`Y[`Yb`X`ÅfYb`6UbX`H\`Y`Dc`]W`"A`]h  
i`bj`YfV`Øa`hYa`9bh\i`g]Uga`i`g`i`bX`gY]bYf`XmbUa`]gW\Yb  
6Ø\`bYbdf`ÅgYbn`ZØ\`fhY`Yf`XUg`D\`]\`Ufa`cb]gW\Y`C`fW\YghYf  
5`hYbVi`f[`!;`YfU`Ub`"≠`fY`8UfV]Yhi`b[ `VY]b`U`hYhY`nU\`fY]W\Y`<`]hg  
XYf`6UbXž`XUfi`bhYf`A`YggU[`Y`ϕ`5`6chhY`i`bX`9j`Yfm`6fYUh\`Mci  
HU`\_`Y`"8`Ug`Ni`gUa`a`Ybgd]Y`nk`]gW\Yb`XYf`c`fW\YghfU`Yb  
ϕhYfd`fYhUh]cb`i`bX`XYb`\_]`cb]gW\Yb`A`Y`c`X]Yb`XYf`,`\$Yf`ϕ\`fY`gW\i`Z  
Y]bY`gh]a`i`]YfYbXY`i`bX`Ya`ch]cbU`Y`5`ha`cgd\`ÅfYž`k`Y`W\Y`X]Y  
Ni`ØfYf`]b`]\`fYb`6Ubb`nc[ `8]Y`dUi`gYb`cgYb`,`VYf[`Åb[`Y  
nk`]gW\Yb`XYb`Gcb[`g`gc`f[`hYb`XUVY]`ZØf`Y]bYb`Y]bXfi`W`\_g]`c`Yb

: 'i ggž'XYf'YXcWž'hfc'h'XYg'a ca YbhUbYb'6Y]ZU`gž'Ui ZY]b][ Y  
9bhhÀi gWxi b[ Yb'gh]Y» "'J ]Y`Y'ja 'Di V`\_]i a 'Yfk UfhYhYb'Y]bY  
'Àb[ Yfy'8Ufv]Yhi b[ 'i bX'Ài »YfhYb']\fyb'i ba i h'ØVYf'X]Y  
\_ca df]a ]YfhY'Gd]Y`XUi Yf"

## 9]b '\_f]h]gWYf'6`]W\_`Ui Z' 7Ufa ]bU`Vi fUbU

æ ' ?cbhfUghini 'XYb'ZfØ\`]WYb'A Y`cX]Yb'XYf'Dc`]W`ghUbX`X]Y  
\_cbhfcj YfgY' ðgnYb]Yfi b[ 'j cb'7Uf`CfZg' 7Ufa ]bU`Vi fUbU "' , VYf  
X]Y`µ\fnY\bhY`\]bk Y[ 'k Uf`X]YgYg'GhØW\_`i a ghf]hhYbž'b]W'hini `Yhnh  
k Y[ Yb'gY]bYf'5i ZZØ\fi b[ g[ YgW]W'hY'ja '8f]hhYb'F Y]Wž'X]Y  
nU\`fY]WY`?f]h]\_Yf'Ui Z'XYb'D`Ub'f]YZ"'æ 'FU\`a Yb'XYg'?i bghZYghYg  
k i fXY`Y]bY'fUi ZZØ\fi b[ 'j cb'XYf'@]dn][ Yf': cfk UfX'8UbW  
7ca dUbmidfÅgYbh]Yfhž'XYfYb'a cXYfbY' ðhYfdYhUh]cb'bi f'k Yb][  
a ]h'XYa 'i fhmd]gWYb'K Yf\_`[ Ya Y]bgUa '\UhY"'8]Y'5i ZZØ\fi b[  
gW]Yb'VYk i ggh'X]Y`\_Ugg]gWYb'9`Ya YbhY`CfZg'ni  
XY`cbghfi ]YfYbž']bXYa 'g]Y`Y]bYb'j Ø`][ 'bYi Yb'?`Ub[ hYdd]W  
gWxi Z'XYf'Xi fW`Y`Y\_hfc]gWY'6YUhg'i bX'Gmbh\Yg]nYf'\_Àb[ Y  
[ YdfÅ[ h'k Uf"'8]YgY'9bhgWY]Xi b[ 'gd]Y[ Y'h'X]Y`HYbXYbn'k ]XYfž  
\_`Ugg]gWYg'F YdYfhc]fY'`bYi 'ni ]bhYfdYh]YfYbž'k Ug'gck c\`'j cb  
XYb'?ØbghYfb'U'g'Ui W`j cb'XYb'Ni gWUi Yfb'i bhYfgW]YX`]W  
k U\f[ Ybca a Yb'k i fXY"

8]Y'7\cfYc[ fUd\]Y`XYf': cfk UfX'8UbW'7ca dUbmž'YbhghUbXYb  
Ui g`Y]bYa '\_fYUh]j Yb'DfcnYgg'nU\`fY]WYf'æ dfcj ]gUh]cbYbž  
ZcfXYfhY`XUg'a cbcWfca Y'A i g]\_[ YgWY\Yb`\YfUi g`Hfc'h'XYf  
HU`YbhYbhZU`hi b[ 'XYf'HÀbnYfž'X]Y'j] \fyb'ZUgh'i b]Zcfa Yb  
'?cghØa Yb'X]Y'6Ø\`bY`YfcVYfhYbž'V']YV`XYf'6Yni [ 'ni `CfZg  
ZUW`hhYbYf]WYa 'GdY\_hfi a 'j Yf`cYb"'J ]Y`Y'Ni gWUi Yfž'XUfi bhYf  
Ui W`X]Y`BUWVUf]b'Y]bYg'æi fbU`]ghYbž'nY][ hYb'g]W`j Yfk ]ffhi bX  
YbhhÀi gWxi h'ØVYf'XYb'XYi h]W`[ YghY][ YfhYb'; fUX`XYf'5VghfU\_h]cb  
i bX'XYb'[ Yf]b[ Yb'6Yni [ 'ni a `Cf][ ]bU`k Yf\_ž'k Ug`X]Y'6YXYi hi b[  
XYg'\_ØbghYf]gWYb'GWUZZYbg]b'Nk Y]ZY`nc[ "

## 9]b 'a i h][ Yf'GWf]hh']b'X]Y`Ni \_i bZh'XYf'? i bgh

8YbbcWž'hfc'h'XYf'[ YgdU`hYbYb'A Y]bi b[ Yb'ni 'XYb'Ui Z[ YZØ\fhYb  
GhØW\_Ybž'Xca ]b]YfhY`Y]b'Zf]gWYf'K ]bX'VY]`X]YgYa '?i bghZYghž'XYf

XUg`Di V`\_]i a ` \YfUi gZcfXYfhYž'ØVYf`XYb`HY`YffUbX  
 \]bUi gni gWUi Yb"8]Y`a i h[ Y`#\_`i g]cb`j cb`A cXYfb]hÅhi bX  
 #hYfdFYhUh]cbYb`Ui g`j YfgW]YXYbYb`?i bghZcfa Yb`ghY`hY` : fU[ Yb  
 ØVYf`K U\fbY\ a i b[ ž`XbYh]hÅhi bX`HfUX]h]cb" `#`Y]bYf`NY]hž`b`XYf  
 ?i bgh`gck c\`U`g`FYZY\_h]cb`U`g`Ui W`U`g`Dfcj c\_Uh]cb`U[ ]Yfhž`ÅXh  
 XUg`?i bghZYghXUni `Y]bž`X]Y`Y][ YbY`?ca ZcfhncbY`ni `j Yf`UggYb  
 i bX`g]W`a `h`XYb`j ]Y`gW]W]h[ Yb`H\Ya Yb`Ui gY]bUbXYfni gYhnYb"  
 8Yf`5VYbX`j YfXYi h]W`hYž`XUgg`?i bgh`b]W`h`bi f`I bhYf`U`hi b[ `]ghž  
 gcbXYfb`Ui W`Y]b`\_f]h]gW]Yg`K Yf\_nYi [ `ni f`FYZYI ]cb`XYf  
 ; YgW]W`hY`i bX` ; YgY`gW]UZh`XUfghY`h"

8]Y`9b`hk ]W`\_i b[ `j cb`?i bghZcfa UhYb`nY][ h`Y]bYb`XYi h]W`Yb`HfYbX  
 ni f`8]j Yfg]hÅhi bX`ni f`<YfUi gZcfXYfi b[ `j cb`\Yf\_Øa a `]W`Yb  
 Bcfa Yb"8Ug`?i bghZYgh`K Y]a Uf`]gh`Y]b`6Y]gd]Y`ZØf`X]YgY  
 F]W`hi b[ ž`bXYa `Yg`\_fYUh]j Y` : fY]fÅi a Y`ZØf`9I dYf]a YbhY`i bX  
 ]bbcj Uh]j Y`#hYfdFYhUh]cbYb`gW]UZh"K Å\fbX`X]Y`HfUX]h]cb  
 fYgdY\_h]Yfh`k ]fXž`]gh`XYf`6`]W`\_j b`X]Y`Ni \_i bZh`b]Ya U`g`ni ` \_i fn  
 [ YXUW`h"

Dc`]h]gW]Y`i bX`gc`n]U`Y`? cbhYI hY`XYf  
 5i ZZØ\fi b[

8]Y`5i ZZØ\fi b[ `ZUbX`]a `?cbhYI h`Y]bYg`ni bY\ a YbXYb  
 ]bhYf`\_i `hi fY`Yb`8]U`c[ g`ghUhž`XYf`]b`XYb`YhnhYb`#U\fb`]b`XYf  
 XYi hgW]Yb`?i `hi fgnYbY`Ub`6YXYi hi b[ `[ Yk`cb`bYb`\Uh"  
 #gVYgcbXYfY`X]Y`GhUXh`K Y]a Ufž`VY\_Ubbh`U`g`NYbhfi a `ZØf`?i `hi f  
 i bX`6]Xi b[ `gck ]Y`U`g`I B9G7C`!K Y`h`\_i `hi fYfVYž`gd]Y`h`Y]bY  
 VYgcbXYfY`F`c`Y`]b`XYf`J`Yfa `]h`i b[ `\_Øbgh`Yf]gW]Yf`i bX  
 \]ghcf]gW]Yf`#U`hY"K Y]a Uf`ghY`h`gma Vc`]gW]ZØf`5i Z\_`Åfi b[ `i bX  
 \i a Ub]gh]gW]Y`K YfhYž`k Ug`Xi fW`\_i `hi fY`Y`J`YfUbghU`hi b[ Yb`k ]Y  
 XUg`?i bghZYgh`i bhYfgh]W]Yb`k ]fX"

9]b`nYb`hfU`Yf`5gdY`\_h`X]YgYg`8]U`c[ g`]gh`X]Y`5i gY]bUbXYfgYhni b[  
 a ]h`XYf`J`Yf[ Ub[ Yb`Y]hž`]bgVYgcbXYfY`a ]h`XYb`Xi b`\_Yb`?Ud]hY`b  
 XYf`XYi hgW]Yb` ; YgW]W`hY"8]Y`5i ZZØ\fi b[ `j cb`7Uf`C`fZg  
 `7Ufa ]bU`6i fUbU`k ]fX`Xi fW`X]Y`\]ghcf]gW]Yb`5ggcn]Uh]cbYbž`X]Y  
 XYf`?ca dcb]gh`i bX`XUg`K Yf`\_a ]h`XYa `BUh]cbU`gc`n]U`]ga i g  
 \UVYbž`VYgcbXYfg`Vf]gUbh"8]YgY`H\Ya Uh]`\_k ]fX`]b`XYf`\Yi h[ Yb

; YgY`gW UZh`cZi`cbhfcj Yfg`X]g\_i h]Yfhž`XU`? Øbgh`Yf`g]W`XYf  
J YfU bhk cfhi b[ `j]\fYf`K Yf\_Y`i bX`XYfYb`a Ò[ `]W`Y`8Yi hi b[ `]b  
j YfgW ]YXYbYb` \]ghcf]gW`Yb`?cbhYI hYb`VYk i ggh`gY]b`a ØggYb`"9]b  
[ Y`i b[ YbYg`6Y]gd]Y`ZØf`XYb`l a [ Ub[ `a ]h`X]YgYf`H\Ya Uh`\_k i fXY  
Xi fW`X]Y`8Y`\_cbghfi \_h]cb`XYf`cf][ ]bU`Yb`DUfh]hi f`]b`XYf  
8UfghY`i b[ `XYf` : cfk UfX`8UbW`7ca dUbm`Ub[ YXYi hYh`

## 8]Y`K ]f`\_i b[ `j`cb`A`i`g]`\_i bX`HUb`n`Ui`Z [ YgY`gW UZh`]W`Y`H\Ya`Yb`

8]Y`J YfV]bXi b[ `j`cb`A`i`g]`\_i bX`HUb`n`]gh`gW`cb`gY]h`J\`f\`i bXYfhYb  
Y]b`k ]W`h][ Yg`A ]hhY`ž`i a` [ YgY`gW UZh`]W`Y`H\Ya`Yb`ni`fYZY`\_h]YfYb  
i bX`ni`f`8]g\_i gg]cb`Ubni`fY[ Yb`" Æ`XYf`5i`ZZØ\`fi b[ `nY][ hY`g]W`ž`k ]Y  
A`i`g]`\_b]W`h`bi`f`U`g`l bhYf`U`hi b[ ž`gcbXYfb`Ui`W`U`g  
5i`gXfi`W\_ga` ]hhY`ZØf`h]YZfY`gcn]U`Y`i bX`\_i`hi`fY`Y` : fU[ Yb  
Z`b[ ]Yfh`8]Y`5i`gk`U\`XYf`A`i`g]`\_j`cb`H\Y`Dc`]W`i bhYf`XYf`@Y]hi`b[  
j`cb`7cdY`UbX`ghY`hY`Y]bY`VYk i gghY`9bhgW`Y]Xi`b[ `XUfž`i`a`XYb  
Ni`gW`Ui`Yf]b`Y]bYb`bcghU`[ ]gW`Yb`8]U`c[ `a ]h`XYf`J`Yf[ Ub[ Yb`Y]h  
ni`Vf]b[ Yb`ž`k`À\`fYbX`X]Y`bYi`YfY`Æ`hYfd`fYhUh]cb`j`cb`7Ufa`]bU  
6i`fUbU`Y]bY`\_f]h]gW`Y`5i`gY]bUbXYfgYhni`b[ `a ]h`HfUX]h]cb`i`bX  
XYfYb`l`a`XYi`hi`b[ `]b`XYf` : Y[ Ybk`Ufh`XUfghY`h`

5i`W`]bbYf`U`V`XYg`Di`V`]i`a`g[ UV`Yg`i`bhYfgW`]YX`]W`Y  
FYU`\_h]cbYb`Ui`ZX]Y`j`YfgW`]YXYbYb`5i`ZZØ\`fi b[ ggh]`Yž`k`Ug`Ui`Z`X]Y  
J]Y`ZU`h`XYf`Ni`gW`Ui`Yf!6UW`\_ [ fci`bXg`i`bX`XYfYb`Yk`Y][ Y  
6Yn]Y\`i`b[ Yb`ni`f`A`i`g]`\_`\]bk`Y]gh`K`À\`fYbX`Y]b][ Y`XYb` : c`\_i`g`Ui`Z  
X]Y`]bbcj`Uh]j`Y` ; YghU`hi`b[ `i`bX`X]Y`W`cfYc[ fUZ]gW`Y`l`a`gYhni`b[  
gW`À`hnhYbž`\UhYb`UbXYfY`GW`k`]Yf][ \_Y]hYbž`X]Y`J`YfV]bXi`b[ Yb`ni  
Yf`\_Yb`bYb`c`XYf`ZUbXYb`X]Y`<`YfUb[ Y`Yb`gk`Y]gY`a`Ò[ `]W`Yfk`Y]gY`ni  
k`Y]h`Yb`hZYfb`h]j`ca`Cf][ ]bU`k`Yf`\_`

8YhU]`g`

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