

: YW Yb \ Y]a . ; fc » Yg  
A cXYfb]g]Yfi b[ gdfc ^\_h'gW UZZh'%'\* 'bYi Y  
K c \ bi b[ Yb

8 ]Y 'B UggUi ]gW Y '< Y]a ghÀhhY 'gW UZZh']b : fUb\_Zi fh!  
: YW Yb \ Y]a '%'\* 'bYi Y 'K c \ bi b[ Yb 'Xi fW  
8 UW Ui ZghcW\_i b[ Yb 'i bX 'A cXYfb]g]Yfi b[ Yb 'V]g'&\$&) "

⊖ : fUb\_Zi fh! : YW Yb \ Y]a 'k ]fX 'XYfnY]h'Y]b 'i a ZUggYbXYg  
6Ui dfc ^\_h'fYU`g]Yfhž'k Y'W Yg'b]W h'bi f'X]Y 'A cXYfb]g]Yfi b[  
VYghY \ YbXYf'; YVÀi XYž'gcbXYfb 'Ui W 'XYb '6Ui 'bYi Yf'K c \ bi b[ Yb  
i a ZUgg" '8 ]Y 'B UggUi ]gW Y '< Y]a ghÀhhY 'gh' \ ]YfVY]'ZYXYfZØ \ fYbX  
i bX 'gW UZZh']bg[ YgUa h'%'\* 'bYi Y 'K c \ bi b[ Yb 'Xi fW  
8 UW Ui ZghcW\_i b[ Yb 'b'Y]bYa 'XYf'GhUXhhY]'Yž'X]Y 'i bhYf  
K c \ bfUi a a Ub[ Y''Y]XYb"

8 ]Y 'A cXYfb]g]Yfi b[ ga U» bU \ a Yb ' \_cbnYbhf]YfYb 'g]W 'Ui ZX]Y  
<Ui gbi a a Yfb '%'\* !&&'i bX '&(!' \$]b 'XYf'8 ]YhYg \ Y]a Yf'GhfU» Y"  
8 ]Yg'VY]b \ U'hYh'b]W h'bi f'X]Y 'F Ybcj ]Yfi b[ 'XYf  
K c \ bi b[ gY]b \ Y]hYbž'gcbXYfb 'Ui W 'g][ b]Z]\_UbhY '⊖j Ygh]h]cbYb ']b  
bUW \ U'h][ Y'9bYf[ ]YhYW bc'c [ ]Yb "'9]b 'N]Y 'X]YgYf 'A U» bU \ a Yb ']gh  
Ygž'V]g'ni a ' \ f'&\$ ( ) 'Y]bY' \_]a UbYi hfU'Y'K Àfa Yj Yfgcf[ i b[ 'ni  
YffY]W Ybž'k Ug ]b 'XYf' \ Yi h][ Yb 'NY]hj cb '[ fc » Yf'F Y'Yj Ubn ]gh"

### J YfÀbXYfi b[ Yb ']a 'K c \ bfUi a

8 ]Y '5i ZghcW\_i b[ Yb 'XYf'; YVÀi XY'YfZc` [ Yb 'dUfU''Y''ni 'XYb  
A cXYfb]g]Yfi b[ gUfVY]hYb "'8 ]Y '8 ÀW Yf'XYf'i fgdfØb [ `]W 'UW h  
; YVÀi XYhY]'Y'k YfXYb 'i a [ YVUi hž'i a 'Yk Y]'g'nk Y]'bYi Y  
K c \ bi b[ Yb 'ni ' ]bhY [ f]YfYb "'8 Ua ]h'YbhghY \ h'Y]bY'ni gÀm` ]W Y  
K c \ bZÀW Y'j cb ]bg[ YgUa h'i b[ YZÀ \ f' - \* \$ 'E i UXfUha YhYfbž'k Ug  
Y]bYb'k ]W h][ Yb '6Y]hfU[ 'ni f'6Y\_Àa dZi b[ 'XYg'K c \ bi b[ ga Ub[ Y'g

]b': fUb\_Z fhXUfghY`h"A ]h'Y]bYa ' ěj Ygh]h]cbgj c`i a Yb`j cb`) ž( A ]`)cbYb`9i fc`k ]fX`X]YgY`A U» bU\ a Y`[ YZØfXYfhž`k cVY]`g]W`X]Y ; YgUa h\_cghYb`XYg`Dfc`Y\_hg`Ui Z`Yhk U`%( ž+`A ]`)cbYb`9i fc gi a a ]YfYb"

6YgcbXYfg`Yfk Å\bYbgk Yfh`]gh`X]Y`B UW\`U`h[\_Y]hgghfUHy[ ]Yž`X]Y Xi fW`XYb`9]bVUi `j cb`K Åfa Ydi a dYb`i bX`D\`chcj c`hU]\_!5b`U[ Yb j cfUb[ Yhf]YVYb`k ]fX``8i fW`a cXYfb]g]YfhY` : UggUXYb`i bX`bYi Y : YbghYf`gc``Y]b`Yf\`YV`]W`Yf`HY]`XYf`7C &!9a ]gg]cbYb`fYXi n]Yfh k YfXYb``A cb]\_U` : cbhU]bY!`?fYhgW`a Yfž`X]Y`hYW`b]gW`Y ; YgW`ÅZhgzØ\`fYf]b`XYf`B UggUi ]gW`Yb`<Y]a gh`hYž`\`YVh`\`Yfj cfž XUgg`ZØf`X]Y`Ui ZYbXYb`A U» bU\`a Yb`Yhk U`%ž`A ]`)cbYb`9i fc`ZØF Ybcj ]Yfi b[ gUfVY]hYb`VYfY]h[ YghY`h`k i fXYbž`XUfi bhYf`X]Y 9fbYi Yfi b[ `XYf`gUb]h`fYb`9]bf]W`hi b[ Yb"

## < YfUi gZcfXYfi b[ Yb`k Å\`fYbX`XYf`6Ui nY]h

9]b][ Y`<YfUi gZcfXYfi b[ Yb`a i gghYb`VYfY]hg`]b`XYf`D`Ubi b[ gd\`UgY [ Ya Y]ghYfh`k YfXYb``5`]fYnU`5Zg\`Ufž`Dfc`Y\_hY]hYf`VY]`XYf`B <K ž VYf]W`hYhY`j cb`Y]bYa `Yhk U`Y]b`Å\`f][ Yb`8]U`c[ `a ]h`XYb GhUXhVY\`ØfXYb`VYnØ[ `]W`XYf`B`chk YbX][ \_Y]hž`a Ø[ `]W`Yfk Y]gY Y]bYb`6Ui a`ni`Z`Ybž`i a`XYb`Ni [ Ub[ `ZØf`X]Y` : Yi Yfk Y\`f g]W`Yfni ghY`Yb``8]YgY`5fhj cb`9b[ U[ Ya Ybh`nY][ h`XYb`\_ca d`Yi Yb Dfc`nYggž`XYf`\]bhYf`gc`W`Yb`6Ui dfc`Y\_hYb`ghYW`h"

8]Y`l a`nØ[ Y`XYf`Yhk U`' `VYhfc`ZYbYb`A ]YhdUfhY]Yb`k i fXYb`]b Yb[ Yf`Ni gUa a YbUfVY]h`a ]h`XYf`B UggUi ]gW`Yb`<Y]a gh`hY cf[ Ub]g]Yfhž`i a`]\`bYb`k Å\`fYbX`XYf`6Ui UfVY]hYb`Y]bYb fY]Vi b[ g`cgYb` , VYf[ Ub[ `ni`Yfa Ø[ `]W`Yb``8Uj cb`g]bX``% A ]YhdUfhY]Yb`]b`]\`fYb`K c\`bi b[ Yb`[ YV`]YVYbž`k Ug`i bhYfghfY]W`hž XUgg`X]Y`B <K`VYa Ø\`h]ghž`XYb`9]bZi gg`XYf`6Ui UfVY]hYb`Ui ZX]Y 6Yk c\`bYf`gc`[ Yf]b[ `k ]Y`a Ø[ `]W`ni`U`hYb"

8]Y`[ YgUa hY`6Ui nY]h]gh`V]g`ni f` : Yfh][ ghY`i b[ `]a`A`Åfn`&\$&) Ub[ YgYhnhž`k cVY]`J YfnØ[ Yfi b[ Yb`b]Y`[ Ub`n`Ui g[ YgW`c`ggYb k YfXYb`\_ØbbYb``8]Y` ěj Ygh]h]cbYb`]b`X]Y`9bYf[ ]Yj Yfgcf[ i b[ VY`Ui ZYb`g]W`Ui Z`Yhk U`+ž`A ]`)cbYb`9i fc`i bX`g]bX`Y]b`k Y]hYfYf G`W`f]h`i]b`f ]W`hi b[ `Y[ `]W`Yf`B UW\`U`h[\_Y]hž`X]Y`X]Y`B UggUi ]gW`Y

<Y]a ghÀhhY`]a`F U\`a Yb`]\fYf`A cXYfb]g]Yfi b[ gghfUHy[ ]Y`UbghfYVh"

A ]h`Y]bYa`HY]`XYf`:]bUbn]Yfi b[ `Ui g`: ÒfXYfa ]hhY`b`XYg`@UbXYg  
i bX`XYf`?: K !6Ub\_ž`X]Y`i b[ YZÀ`f`Y]bY`A ]`]cb`9i fc`Ui ga UWXYbž  
]gh`XUg`Dfc`Y`\_hgck c`\`ZØf`X]Y`GhUXh`U`g`Ui W\`ZØf`X]Y`VYhY]`][ hYb  
K c\bi b[ gi bhYfbY\`a Yb`j cb`6YXYi hi b[ ž`i a`Y]bY`VYggYfY  
K c\bg]hi Uh]cb`ni`gW UZZYb"

< ]bhYf[ fi bX]bZcfa Uh]cbYb`ni f  
B UggUi ]gWXYb`< Y]a ghÀhhY

8]Y`B UggUi ]gWXY`< Y]a ghÀhhY`K c\bg]hUXh`fB <K Ł`]gh`Y]b`k ]W h][ Yf  
5\_hYi f`]a`6YfY]W\`XYg`gc]U`Yb`K c\bi b[ gVUi g`]b`< YggYb"  
; Y[ fØbXYhi]a`š\`f`%- &( ž`n]Y`h`X]Y`B <K`XUfUi ZUVž`K c\bfUi a`ZØf  
VfY]hY`6Yj Ò`\_Yfi b[ ggW]W hYb`ni`gW UZZYb`i bX`ni`Yf\`U`hYb`"8]Y  
Cf[ Ub]gUh]cb`\Uh]g]W`]b`XYb`Y`h`hYb`š\`fYb`ni bY\`a YbX`Ui Z  
bUW\`U`h][ Y`6Ui k Y]gYb`i bX`X]Y`9bYf[ ]Yk YbXY`Zc\_i gg]Yfhž`i a  
XYb`< YfUi gZcfXYfi b[ Yb`XYg`?`]a Uk UbXY`g`ni`VY[ Y[ bYb`"9]b  
\Yfn\UZhY`A ]gg]cb`VYghY\`h`XUf]bž`ØVYf`XYb`gc]U`Yb  
K c\bi b[ gVUi`\]bUi g`Ui W\`Ò\_c`c[ ]gWXY`GhUbXUfXg`ni  
VYfØW\_g]W h][ Ybž`k Ug`g]W`Ui W\`]b`XYb`bYi Yb`Dfc`Y`\_hYb  
b]YXYfgW`À[h`"

; Ya`À»`XYb`J cf[ UVYb`XYf`\Ygg]gWXYb`@UbXYgfY[ ]Yfi b[ `gc``XYf  
ÖZZbh]WXY`K c\bi b[ gVUi`V]g`&\$(`)\_`\_]a UbYi hfU`[ YghU`hYh  
k YfXYb`"8]YgY`N]Y`gYhni b[ `ghY`h`X]Y`B <K`j`cf`[ fc»Y  
< YfUi gZcfXYfi b[ Ybž`]bgVYgcbXYfY`VY]`XYf`GUb]Yfi b[ `À`hYfYf  
; YVÀi XY`i bX`XYf`h`hY[ fUh]cb`j`cb`a cXYfbYb`9bYf[ ]YgmghYa Yb"  
I a`X]Y`Ua`V]h]cb]YfhYb`7C &!FYXi`\_h]cbgn]Y`Y`ni`YffY]WXYbž  
]bbc] ]Yfh`X]Y`B <K`\_cb]bi ]Yf`]W\`fY`6Ui`!`i bX  
GUb]Yfi b[ gghfUHy[ ]Yb`"8 Ug`Dfc`Y`\_h]b`:]fUb\_Zi fh!:]WXYb\Y]a`]gh  
Y]b`6Y]gd]Y`ZØf`X]YgYb`bYi Yb`5bgUhn"

5\_hi Y`Y`Y`GhUh]gh]\_Yb`i bX`8 UhYb`ni f  
K c\bg]hi Uh]cb`]b`:]fUb\_Zi fh

⇒ ghÀXh]gWXYb`FUi a`:]fUb\_Zi fhg]gh`XYf`6YXUfZ`Ub`K c\bfUi a`]b

XYb`YmhYb`>\fYb`ghUf\_[ Ygh]Y[ Yb"@Ui hXYa`5a hZØf  
GhUXhd`Ubi b[ `i bX`K c\bi b[ gk YgYb`XYf`GhUXh: fUb\_Zi fh`Ua`A U]b  
[ UV`Yg`a`>\f`&\$&&`Y]bYb`9]bk c\byfni k UW`g`j cb`Yhk U`%ž(  
DfcnYbhž`k Ug`ni`Y]bYa`Ub\U`hYbX`\c\Yb`8fi W`Ui Z`XYb  
K c\bi b[ ga Uf\_h`ZØ\fh`8]Y`A]YhYb`g]bX`]b`X]YgYf`NY]h  
\_cbh]bi ]Yf`]W`[ Ygh]Y[ Ybž`k cVY]`VYghY\YbXY`A]Yhj Yf\`À`hb]ggY`i bX  
BYi VUi hYb`[ `Y]W`Yfa U» Yb`VYhfcZYb`g]bX`"

8]Y`Xi fW`gW`b]h]W`Y`B`Yh`c`\_`U`ha` ]YhY`ZØf`A` ]Yhk c\bi b[ Yb`]b  
: fUb\_Zi fh`U[ `&\$&&`VY]`Yhk U`%` `9i fc`dfc`E`i UxfUha`YhYfž`k Ug`X]Y  
B`chk YbX][ \_Y]h`gcn]U`Yf`K c\bd`fc`Y`\_`hY`k ]Y`XUg`XYf`B`UggUi` ]gW`Yb  
<Y]a`gh`À`hhY`i`bhYfghfY]W`h`" `đ`XYf`J`]g]cb`XYf`GhUXh: fUb\_Zi fh`i bX  
Ui W`j`cb`đ]h]Uh]j Yb`k` ]Y`XYf`B`<`K`k` ]fX`Ub[ YghfYVhž`XYb  
K c\b`fUi a` `ZØf`j YfgW`]YXYbY`6Yj`Ò`\_Yfi b[ g[ fi`ddYb`ni [ `Àb[ `]W`Yf  
ni`a` UW`Ybž`]bgVYgcbXYfY`ZØf`Y]b`\_`ca` a`Yb`ggW`k`ÀW`YfY  
<Ui`g`U`hY`" `I`a` `X]YgY`@W`\_`Y`ni`g`W`" ]Y» Ybž`g]bX`b]W`h`bi`f  
BYi VUi hYb`b`chk YbX][ ž`gcbXYfb`Ui W`i`a` ZUggYbXY  
A`cXYfb]g]Yfi b[ ga U» bU`a` Yb`Ub`VYghY\YbXYb`6Ygh`À`bXYb`"

9g`]gh`k` ]W`h][ `Yfj`c`fni` \YVYbž`XUgg`XYf`6Ui`b`Yi`Yf`K`c\bi`b[`Ybž  
k` ]Y`X]Y`%`\*` [ Yd`Ub`hYb`9]b`Y]hYb`]b`i` YW`Yb`Y]a` ž`b]W`h`bi`f`Y]bYb  
6Y]hfU[ `ni`f`K`c\b`fUi`a`j`Yfgc`f[ `i`b[ `Y]ghYbž`gcbXYfb`Ui`W`Y]bYb  
nYbhfU`Yb`6Ui`ghY]b`ni`f`6Y`\_`Àa`dZi`b[ `XYf`K`c\bi`b[`gb`ch  
XUfghY`Yb`" `đ`X]YgYa` `?`cb`hYi`h`k` ]fX`X]Y`G`W`U`Zi`b[ `j`cb`ei`U`]hUh]j  
\cW`k`Yf]h][ Ya`i`bX`[ `Y]W`nY]h][ `VYnU`\VUfYa`K`c\b`fUi`a`i]a`a`Yf  
fY`Yj`Ub`hYf`"

8YhU]`g

6Ygi W`Yb`G]Y`i`bg`Ui`Z.`X]Y!`b`UW`f]W`hYb`"b`Y`h