

# 9`Vc[ Yb. ' < UnU`g' ? Ua dZ'i a '5\_nYdhUb n i bX '≠XYbh]hÅh`]b '6Yf`]b

9f`VYyb`G]Y`X]Y`\_fUZh] c`Y`J`YfZ]`a i b[ ' 9`Vc[ Yb . '9]bY`† b[ Y  
: fUi ' \_Åa dZi[ Y[ Yb[ ' YgY`gW`UZh]W`Y`5V`Y`bi b[ 'i bX`gi W`h  
] \fYb `D`Uhn"

⇒ a `bYi Yb : ]`a ' 9`Vc[ Yb `hf]Zh`XYf`Ni gW`Ui Yf`Ui Z`X]Y  
Y]bXf]b[ `]W`Y : ] [ i f' < UnU`ž[ Ygd]Y`h`j`cb`XYf`hU`Ybh]YfhYb`A`Y`U  
? UfU`"A`j] \fYb`VfUi bYb`5i [ Ybž`X]Y`K`i`h`i`bX`: fi ghfUh]cb  
k`]XYfgd]Y[ Y`bž`nY][ h`X]Y`† b[ Y`6Yf`]bYf]bž`X]Y`Ui g`Y]bYf  
hØf`\_gW`Yb`: Ua`j`]Y`ghUa`a`hž`X]Y`F`YU`]hÅh`XYg`5i`Zk`UW`gYbg`]b  
Y]bYf`[ YgdU`hYbYb`: YgY`gW`UZh" < UnU`g`]bbYfY`?`cbZ`\_hY`k`YfXYb  
]b`Y]bYa`Y`]bXf]b[ `]W`Yb`Dc`fhfU]h`YVYbX][ ž`XUg`gck`c`X`Y  
< YfUi gZcfXYfi b[ Yb`U`g`Ui W`X]Y`9bhgW`cgYb`Y]h`X]YgYf  
a`chj`]YfhYb`† b[ Yb`: fUi`Y]bZ`Ab[`h"

8]Y`<UbX`i`b[ `Yb`hk`]W`\_Y`h`g]W`ni`Y]bYa`]b`hYbg]j`Yb`GW`Ui`gd]Y`ž  
U`g`<UnU`a`]h`XYb`K`]Xf][`\_Y]hYb`]\fYf`I`a`[`YVi`b[ `cbZfcbh]Yfh  
k`]fX`"K`]f`gY`Yb`g]Y`]b`Y]bYf`F`Y]\`Y`VYXf`Ab[`YbXYf`G]hi`Uh]cbYbž`k`]Y  
U`g`g]Y`Ub`]\fYa``%`,`";`YVi`fhghU[ `Ub`XYf`HØf`Y]bYg`7`i`Vg  
UV[`Yk`]YgYb`k`]fX`"5b[`Yg]W`hg`X]YgYf`i`bX`UbXYfYf  
< YfUi gZcfXYfi b[ Yb`ghY`"h`<UnU`dfcj`c`\_UbhY`: fU[`Yb`: K`Ugž`k`Ybb  
]W`Ub`U`hY`i`bX`X]Y`GW`bYW`Yb`a`]W`ZfYggYb`UggY3`8`Ug  
A`YhUd`Yfgd]Y`j`YfXYi`h]W`h`]\fYb`]bbYfYb`?`Ua`dZi`bX`X]Y  
I`b[`Yk`]gg`Y]hž`X]Y`g]Y`gh`AbX][`VY`UghYh"

## 9]bY`i`bYfk`UfhYhY`:`i`W`h

8]Y`9bhgW`Y]Xi`b[`ž`Y]b`H]W`\_Y`h`bUW``ghUbVi`ni`\_Ui`Zybž`\_ca`a`h  
b]W`h`j`cb`i`b[`YZ`Å`f" < UnU`[ `Ui`Vhž`XUgg`XUg`@YVYb`]b`XYf`HØf`\_Y]  
Y]bY`:`i`W`h`Ui`g`]\fYf`U`\_hi`Y`Yb`a`]gg`]W`Yb`@U[`Y`V]YhYb`\_ØbbhY"

8cW`X]Y`FYU`]h`h]gh[ bUXYb`cg/Ui W`Xcfh`Uh]g]Y  
GWk ]Yf][ \_Y]hYb`z`Y]bYb`xV`cXYf`Y]bYb`5i`gV]`Xi`b[ gd`Uhn`ni  
Z]bXYb`"G]Y`a`i`gg`g]W`YfbYi`h`XYb`J`cfi`fhY]`Yb`i`bX`XYf`5V`Y`bi`b[  
ghY`Yb`z`X]Y`g]Y`]b`8Yi`hgW`UbX`YfZU`fYb`U`h" <]Yf`]b`8Yi`hgW`UbX  
[ ]Vhg`FY[ Y`b`z`k`]fX`]\f`[ YgU[ h`z`k`A`fYbX`g]Y`[ `Y]W`nY]h][ `a`]h  
?`]gW`YYg`i`bX`XYa`J`cfi`fhY]`\_cbZfcbh]Yfh`k`]fX.` Æf`8Yi`hgW`!  
HØf`\_Yb`gY]X`a`UbW`a`U`bU]j`"

FY[ ]ggYi`f]b`5g`]^2`nUfg`Ub`[ Y`]b[ h`Yg`z]b`9`Vc[ Yb`X]Y`GWk`YfY  
i`bX`?ca`d`Yi`]h`h`gc`W`Yf`9fZU`fi`b[ Yb`Y]bXfØW`\_]W`XUfni`ghY`Yb`"  
G]Y`[ fY]Zi`Ui`Z`XYb`F`ca`Ub`j`cb`:`Uha`U`5mXYa`]f`ni`fØW`z`XYb`g]Y  
VYfY]hg`&\$%+`Ug`i`bX`XYggYb`F`c`\\Y]h`g]Y`]b`]\fYf`J`YfZ]`a`i`b[  
Y]bZAb[ h`^2`nUfg`Ub`Yf`\_`Àfh` ÆW`k`c`h`Y`\_cbgYei`Yb`h`bi`f`]\fYb`6`]W`  
Ui`Z`X]Y`K`Y`h`nY][ Yb`"A`]h`U`]\fYb`5a`V]j`U`YbnYb`z`]\fYf`K`i`h`z`c`b`Y  
g]Y`Yf`\_`ÀfYb`c`XYf`j`YfhY]X][ Yb`ni`a`ØggYb`"8]YgYf`5bgUhn`U`h`Y`g  
]\f`Yfa`Ø[ `]W`h`z`<`UnU`g`G]W`hk`Y]gY`Ui`h`Yb`h]gW`XUfni`ghY`Yb`"

<UnU`g`FY]gY`]b`X]YgYa` ,`\*!a`]bØh][ Yb`:`]a`]gh`\_Y]bY`hmd]gW`Y  
7ca`]b[ !cZ]5[ Y!; YgW]W`h`Y`z]b`XYf`X]Y`ÆYb`h]h`hgZ]bXi`b[ `]a  
A`]hY`di`b`\_`h`ghY`h`"GhUhhXYggYb`j`YfZc`[ h`<`UnU`Y]b`UbXYfYg`N]Y`.  
G]Y`gi`W`h`b`UW`Y]bYa`D`Uhn`]b`XYf`; YgY`gW`U`Zi`bX`j`Yfgi`W`h`z]`\fY  
Gh]a`a`Y`]b`Y]bYf`K`Y`h`ni`Z]bXYb`z`X]Y`g]Y`c`Zi`UVk`Y]gh` ÆfY  
9bhgW`Y]Xi`b[ Yb`g]bX`c`Zha`U`g`]a`di`g]j`z`XcW`]\fY  
9bhgW`c`ggYb`Y]h`V`Y]Vhi`b[ YVfcW`Yb`z`V]g`g]Y`]b`XYb`A`ca`Yb`h`Yb  
XYf`i`bg]W`Yf`Y]h`ni`a`:`fU[ Yb`\_ca`a`h"

### 5i`h`Yb`h]n]h`h`Xi`fW`B`À`Y

9]b`VYgcbXYfYg`5i`[ Yba`Yf`\_`k`]fX`Ui`Z`X]Y`5fh`i`bX`K`Y]gY`[ Y`Y`[ h`z  
k`]Y`X]Y`?`Ua`YfU`<`UnU`Xi`fW`]\fYb`5`hU[ `VY[ `Y]h`Yh`8]Y  
FY[ ]ggYi`f]b`z`X]Y`Y]b`Ghi`X]i`a`]b`8c`\_i`a`Yb`hUfZ]`a`dfcXi`\_h]cb  
[ YbcggYb`U`h`z`\_fY]Yfh`Y]bY`gdØfVUfY`B`À`Y`ni`XYf`DfchU[ cb]gh]b`"  
8]YgY`h`Y`W`b]gW`Y`<`YfUb[ Y`Y`Yb`gk`Y]gY`j`Yf`Y]h`XYa`:`]a`Y]bY  
Ui`»`Yf[ Yk`Ø`b`]W`Y`Æ`h`Y`bg]h`h`i`bX``À`ggh`XYb`Ni`gW`Ui`Yf`]b`<`UnU`g  
<`YfUi`g`Zc`fXYfi`b[ Yb`Y]b`hUi`W`Yb`"A`Y`]U`?`UfU`z`X]Y`]b`Y]b`Ya  
GhfYYhWUgh]b[ `Yb`hXYW`\_h`k`i`fXY`z`Vf]b[ h`X]YgY`\_ca`d`Yi`Y`:`][ i`f`a`]h  
VYY]bXfi`W`\_YbXYf`5i`h`Yb`h]n]h`h`ni`a`@VYb`" Æf`HU`Yb`h`nY][ h`g]W`  
j`cf`U`Ya`]b`XYb`Ya`ch]cb`U`Yb`H]YZ]b`z`X]Y`g]Y`ØVYfk`]bXYh"

9`Vc[ Yb `]ghia Y\f`U`g`bi f`Y]bY`9fnÅ\`i b[ `ØVYf`XUg  
5i ZY]bUbXYfhfYZZYb`j cb`?i`hi fYb`i bX`≠XYbh]hÅhYb`"9g`]gh`Y]b  
a i h][ Yf`6`]W`Ui ZX]Y`i bj YfZÅ`gW\hY`FYU`]hÅh`↑ b[ Yf`A YbgW\Ybž  
X]Y`]a`GdUbbi b[ gZY`X`j cb`<Yf`\_i bZhi bX`]bX]j ]Xi Y`Yf`≠XYbh]hÅh  
`YVYb`"8Yf`:]`a`"ÅXh`XUni`Y]bž`ØVYf`X]Y`]bbYfYb`?Åa dZY`i bX`X]Y  
GY\b gØW\hY`Y]bYf`; YbYfUH]cb`bUW\ni XYb`\_Ybž`X]Y`g]W\`a`]h  
J cfi fhY`]`i bX`5V`Y\bi b[ `\_cbZfcbh]Yfh`g]Y\h`<UnU`ghY\`h`b]W\h`bi f  
ZØf`g]W\`gY`Vghž`gcbXYfb`Ui W\`ZØf`j ]Y`Y`Gh]a`a Ybž`X]Y`]b`XYf  
; YgY`gW\UZhicZhib]W\h`[ Y\Öfh`k YfXYb`"

8YhU]`g

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