

I bW]d \ YfYX `Yb h\ Ø`h`Y hnh`[Yd UhWk hY GWk UW ghY`Y`]b`C bY? Ym`K U`Yh

⊕`Y]bYa `Mci Hi VY!J]XYcž`XUg`Ui Z]\fYa `? UbU`[YhY]`h
k i fXYž`XYa`cbghf]YfhY`XUg`7mVYfg]WYf\Y]ghYUa`j`cb
I bW]d \ YfYX`Y]bY`_f]h]gWY`G]WYf\Y]hg`ØW_Y`ZØf`X]Y`C bY? Ym
6f]Y ZhUgWY`ž`X]Y`g]Y`k`À`fYbX`XYf`F`YWYfWY`Yb`hXYW`h
`UhYb`"K`jY`VY]`XYf`K` \]hY!< Uh!9b`hXYW`i`b[`j`cb
GWk UW ghY`Y`b`ØV`]W`ž`k`i`fXY`XUg`J`]XYc`j`Yf`ÖZY`b`h]W`hž
bUW`XYa`Yg`[`Yd`UhW`h`k`i`fXY`":`Y`Y`b`XY`ØV`]W`Y
J`Y`fg`W`Ø`gg`Y`i`b[`I`bW]d \ YfYX`ž`Y]b`7`mVYfg]WYf\Y]hg!`GhUfhi`dž
XYggYb`<`Ui`dhUi`[`Yba`Yf`_`Ui`Z`XYf`K`]YXYf\YfghY`i`b[
j`Yf`c`fY`b`Yf`?`fmd`hc`g`ZØf`?`i`b`XY`b`i`Y[`hž`X]Y`_Y]b`Yb`Ni`[`f]Z
a`Y`f`Ui`Z]\fY`6f]Y ZhUgWY`Yb` \ UVYbž` \ Uh`XUg`DfcV`Ya
j`Yfa`i`h]W`Ui`Z[`YXYW`hž`U`g`Yg`j`Yfgi`W`hY`ž;`Y`XYf`ZØf`Y]b`Yb
?`i`b`XY`b`ni`fØW`ni`Yf`U`hYb`"⊕`XYa`J`]XYc`k`]fX`Y]b`Y`C`b`Y?`Ym
6f]Y ZhUgWY`nYf`Y[`hi`b`X`a`Ub]di`Yf`hž`k`cVY]`XUg`I`bW]d \ YfYX!
HYUa`Y]bY`<`UfXk`UfY`Y]b`ZØ[`hž`X]Y`X]Y`?`ca`a`i`b[_U]cb
nk`]gWYb`XYf`7DI` /`Ua`d`Λ`Y`d`/



⊕`Y]bYa `Mci Hi VY!J]XYcž`XUg`Ui Z]\fYa `? UbU`[YhY]`h`k`i`fXYž

XYa cbghf]YfhY`XUg`7mVYfg]WYf\Y]hghYUa`j`cb`l`bW]d\YfYX`Y]bY`
_f]h]gWY`G]WYf\Y]hg`ØW_Y`ZØf`X]Y`C`bY?`Ym]6f]YZhUgWYž`X]Y`g]Y`
k`À\fybX`XYf`F`YWYfWY`YbhXYW_h`UhhYb"

K`jY`VY]`XYf`K` \]hY!<Uh!9bhXYW_i`b[`j`cb`GWk`UW`ghY`Yb`ØV`]W`ž`
k`i`fXY`XUg`J`]XYc`j`Yf`ØZYbh]W`hž`bUW`XYa`Yg`[`YdUhW`h`k`i`fXY"

:`Y`\`Yb`XY`ØV`]W`Y`J`YfgW`ØggY`i`b`[`

I`bW]d\YfYXž`Y]b`7mVYfg]WYf\Y]hg!GhUfhi`dž`XYggYb`
<Ui`dhUi`[`Yba`Yf`_`Ui`Z`XYf`K`]YXYf\YfghY`i`b[`j`Yf`c`fYb`Yf`?`fmd`hc`g`
ZØf`?`i`bXYb`b`]Y[`hž`X]Y`_`Y]bYb`Ni`[`f]Z`a`Y`\f`Ui`Z`\fY`6f]YZhUgWYb`
\UVYbž`\Uh`XUg`Dfc`V`Ya`j`Yfa`i`h]W`Ui`Z[`YXYW_hž`U`g`Yg`j`Yfgi`W`hYž`
;`Y`XYf`ZØf`Y]bYb`?`i`bXYb`ni`fØW`ni`Yf\U`hYb" `æ`XYa`J`]XYc`k`]fX`
Y]bY`C`bY?`Ym]6f]YZhUgWY`nYf`Y[`hi`bX`a`Ub]di`Yfhž`k`cVY]`XUg`
I`bW]d\YfYX!HYUa`Y]bY`<UfXk`UfY`Y]bZØ[`hž`X]Y`X]Y`?`ca`a`i`b[_Uh]cb`
nk`]gWYb`XYf`7DI`X`Yf`6f]YZhUgWY`i`bX`\fYf`g]WYfYb`9]b\Y]h`
ØVYfk`UW`h"

æ`5`[`Ya`Y]bYb`]gh`X]Y`?`ca`a`i`b[_Uh]cb`nk`]gWYb`XYf`7DI`i`bX`
XYf`g]WYfYb`9]b\Y]h`i`k`c`X]Y`A`bYa`cb]_`i`bX`X]Y`?`fmd`hc`[`fUd`\]Y`
[`YgdY]WYfh]g]bX`j`YfgW`ØggY`h`6Y]`C`bY?`Ym]K`U`Yhg`gWY]b`h`
X]Yg`YXcW`b]W`h`XYf`:`U`ni`gY]b"

B`cfa`U`Yfk`Y]gY`k`]fX`X]Y`?`ca`a`i`b[_Uh]cb`nk`]gWYb`XYf`7DI`ž`k`c`
X]Y`J`YfUfVY]hi`b[`ghUhhZ]bXYhž`i`bX`XYa`g]WYfYb`9`Ya`Ybh`
j`YfgW`ØggY`h`B`i`bž`Yg`ghY`h`g]W`YfUi`gž`XUgg`Yg`]b`X]YgYa`:`U`
b]W`h`XUZØf`_`cbghfi`]Yfh`k`i`fXY`"G]Y`_ØbbhYb`U`gc`Y]b`Hcc`]b`X]Y`
A`]hhY`Y]bVUi`Ybž`XUg`X]Y`?`ca`a`i`b[_Uh]cb`ØVYfk`UW`hi`bX`UVZ`Ab`[`h`
i`bX`XUbb`gY]bY`Y][`YbYb`6YZY`\`Y`Y]bZØ[`h"

6mdUgg`]a`K`Yf_ga`cXi`g`

8`i`fW`XUg`9]bZØ[`Yb`]fYf`<UfXk`UfY`nk`]gWYb`X]Y`7DI`i`bX`X]Y`
g]WYfY`9]b\Y]h`i`cbbhY`XUg`HYUa`j`cb`l`bW]d\YfYX`XUg`;`Yf`Åh`XUni`
Vf]b[`Ybž`ni`[`Ui`VYbž`Yg`gY]`]a`K`Yf_ga`cXi`gž`k`cXi`fW`X]Y`
A`bYa`cb]_`XUbb`Ui`Z`XUg`;`Yf`Åh`XYg`HYUa`g`ØVYfhfU[`Yb`k`i`fXY"

K]f\UVYb`XUg[Ya UW hž`k c`Yg`XUbb`XYa`g]WYfYb`9`Ya Ybh
a]hY)`hž`XUgg`Yg`g]W`ja`K Yf_ga`cXi`g`VYZ]bXYhž`i`bX`k]f`_`ÖbbYb
⇒fY`A`bYa`cb]_`\YfUi`gbY\`a`Yb"

8]Yg`\ÄhY`Yg`Y]bYa`gW`YW`hYb`5`_hYi`fž`XYf`X]Y`GW`k`UW`ghY`Y
\ÄhY`YbhXYW`Yb`_`ÖbbYbž`Yfa`Ö[`]W`hž`Ni`[`f]ZZ`Ui`ZX]Y`6f]Y`ZhUgW`Y
ni`Yf\`U`hYbž`gcVU`X`g]Y`k`]YXYf`ni`gUa`a`Yb[`YgY`hnh`k`i`fXY"

I`bgYfY`5`bhk`cfh`Ui`Z`U`_hi`Y`Y`6`Yf]W`hY`ni`G]W`Yf\`Y]hgVY\`YVi`b[`Yb
\`hdg`##`"W`c`#8`d`-`bB`d`%8`\$`I`

`C`bY?`Ym`C`dYb!`Gci`fW`!`6f]Y`ZhUgW`Y`f4`C`bY?`Ym<`E`Ł`%`\$`"``:`YVfi`Uf
&`\$`&`'

9g`]gh`Yfk`Ä`\`bYb`gk`Yf`hž`XUgg`Yg`Z0f`X]Y`8`i`fW`Z0\`fi`b[`X]YgYg
<`UW`_g`b`ch`k`Yb`X][`[`Yk`YgYb`k`ÄfYž`XUgg`Y]b`5`b[`fY]ZYf`d`\`mg]gW`Yb
Ni`[`f]ZZ`Ui`Z`XUg`;`YfÄ`h`\`U`hYž`XU`Yf`b]W`h`Ui`g`X`Yf`:`Yfb`Y
Xi`fW`[`Y`Z0\`fh`k`Yf`XYb`_`c`b`bhY`"8`Yb`bc`W`]gh`Yg`k`]W`h][`ni
VY`UW`hYbž`XUgg`XYf`Gh`Ub`Xc`fh`Y]b`Yf`<`Uf`Xk`UfY`!`K`U`Y`h`c`ZYb[`Y`Y[`h
k`Yf`XYb`_`Ubb`i`b`Y\`a`Yb`G]Y`ni`a`6Y]gd]Y`X]Y`@`YX[`Yf!`J`Yf`Y`hni`b[`ž
VY]`XYf`X]Y`8`UhYb`XYf`K`U`Y`h!`?`i`b`XYb`c`ZYb[`Y`Y[`h`k`i`f`XYb`ž
k`c`Xi`fW`g]Y`d`ch`Ybn]Y`Y`b`8]YV`gh`Ä`\`Yb`g`ck`]Y`Y]b`ZUW`Yb
9fd`fY`ggi`b[`gj`Yf`gi`W`Yb`Ui`g[`YgY`hnh`k`Uf`Yb"

;`ØW`_]W`Yfk`Y]gY`k`i`fXY`XUg`DfcV`Ya`Y`hnh`Ui`Z[`fi`bX`XYf
?`ca`a`i`b]_`Uh]cb`nk`]gW`Yb`XYb`VY]XYb`l`bhYfbY\`a`Yb`VY\`c`VYb"
:`Øf`]\`fY`6`Ya`Ø`li`b[`Yb`Yf\]Y`h`l`bW]d\`YfYX`Y]b`Yb`b]W`h[`Yb`Ubb`hYb
6Y`hfU[`Ui`g`XYa`6i`[`!6ci`bh`!`Dfc[`fUa`a`j`cb`C`bY?`Ym"

.."

8YhU]`g

6Ygi`W`Yb`G]Y`i`bg`Ui`Z.`_`fmd`hc!`bYk`g"Uh