

HØf\_[ ØWØ'A ØbWÅYb. '? Y`Yf\_]bX'c\bY'G]Y[  
]b'XYf'F Y[ ]cbU`][ U°

HØf\_[ ØWØ'A ØbWÅYb'V`Y]Vh'bUWÅ'XYf'B]YXYf'U[ Y'[ Y[ Yb  
6Ua VYf[ `g]Y[ `cg'i bX'fUb[ ]Yfh'Ua 'HUVY`YbYbXY'XYf  
F Y[ ]cbU`][ U'6UmYfb"

⊕'XYf'F Y[ ]cbU`][ U'6UmYfb' ]gh'X]Y'G]hi Uh]cb'ZØf'HØf\_[ ØWØ  
A ØbWÅYb'U`Yg'UbXYfY'U'g'YfZfYi `]WÅ"BUWÅ'XYf'B]YXYf'U[ Y'[ Y[ Yb  
XYb': 7'9]bhfUWÅ'h'6Ua VYf[ `Uh'g]WÅ'XYf'J YfY]b'Ua 'i bhYfYb'9bXY  
XYf'HUVY`Y'YhUV`Yfh'i bX'V`Y]Vh'k Y]hYf\]b'di b\_h'cg"8]Y'g]YVhY  
F i bXY'XYf'@[ U'VfUWÅ'hY'XYb'CVYfVUmYfb'b]WÅ'h'X]Y'Yf\cZzhY  
K YbXY" GhUhhXYggYb'ghY'h'XUg'HYUa 'bi b'U'g'GWÅ'i gg]WÅ'h'XU'i bX  
\Uh]b'X]YgYf'GU]gcb'bcWÅ'\_Y]bYb'G]Y[ 'Yff]b[ Yb'\_ØbbYb"

⊕'X]YgYa 'A UhWÅž'XUg'Ua 'GUa ghU[ bUWÅ'a ]hhU[ 'ghUhhZUbXž'\UhY  
HØf\_[ ØWØ'A ØbWÅYb'ni bÅWÅgh'a ]h'Y]bYa '9][ Ybhc'f'j cb'6Ua VYf[  
XUg'Gd]Y'YfØZbYhž'VYj cf'g]Y'X]Y'; Y[ Ybk Y\`f'XYf'; Ugh[ YVYf  
j Yf[ YVYbg'gi WÅ'hYb"8]Y'6Ua VYf[ Yfž'X]Y'g]WÅ'a ]hh'Yfk Y]'Y']bg  
A ]hh'ZY'X'XYf'@[ U'j cfUfVY]hYbž'nY][ hYb'Y]bY'ghUf\_Y'@Y]ghi b[ "  
HcV]Ug'@]bn'i bX'8Uj ]X'@Ub[ 'XfY'hYb'XYb'F ØW\_ghUbX'ZØf'XUg  
\Y]a ]gWÅY'HYUa 'ja '8UbhYghUX]cb'i bX''Y» Yb'HØf\_[ ØWØ'Ui Z'XYf  
Gi WÅY'bUWÅ'9fZc`[ 'k Y]hYf\]b'ja 'Gh]WÅ"

### B Y[ Uh]j Yf'HfYbX'gYhnh'g]WÅ'Zc fh

CVk c\`X]Y'<cZbi b[ 'Ui ZY]bY'J YfVYggYfi b[ 'XYf'@Y]ghi b[  
VYghUbXž'gYhnh'g]WÅ'XYf'bY[ Uh]j Y'`HfYbX'XYg'J YfY]bg'Zc fh"9g  
gWÅY]bž'U'g'cV'X]Y'A UbbgWÅUZh'GWÅk ]Yf][ \_Y]hYb'\Uhž'Ui g'XYf  
U\_hi Y`Yb'?f]gY'\YfUi gni \_ca a Yb"⊕ a Yf'k ]YXYf'j Yf[ ]Vh  
HØf\_[ ØWØ'7\UbWÅ'b'i bX'\_Ubb'Y]bZUWÅ'b]WÅ'h'X]Y'bØh][ Y'9ZY\_h]j ]hÅh  
Ui Z'XYb'F UgYb'Vf]b[ Yb"⊕Gc`WÅY'DfcV'Ya Y'ZØ\Yb'ni 'Y]bYf

Zfi ghf]YfYbXYb`9f`YVb]g\_YhhYž`X]Y`g]W`Xi fW`X]Y`[ YgUa hY  
Gd]Y`nY]h`n]Y`h`

⇒ F`cgYbUi ghUX]cb`k Uf`X]Y`@U[ Y`ZØf`X]Y`[ Ugh[ YVYbXYb  
5i [ gVi f[ Yf`YVYbZU`g`b]W`h`c`d`h]a U`"8Yf`5i ZghY][ Yf`a`i`gghY`Y]bY  
Xf]hhY`B]YXYf`U[ Y`]b`:`c`[ Y`\\]bbY`a`Ybž`X]Yga U`[ Y[ Yb`XUg  
YfZU`fYbY`HYUa`Ui`g`6i`W`VUW`"5`VUbc`]; Ug`\\]i`bX`XYf`æ`\_Yf`  
: Uh`c`b`7Y`Ub]Y`gcf[ hYb`XUZØf`ž`XUgg`Yg`ZØf`6i`W`VUW`a`]h`Y`hnh  
bYi`b`Di`b`\_hYb`ni`Y]bYa`VYggYfYb`GU]gcbghUfh`fY]W`h`k`Å`fYbX  
5i [ gVi f[ `k`Y]hYf`\\]b`Ui`ZXYf`Gi`W`Y`b`UW`X`Yf`f]W`h][ Yb`:`cfa`\_]gh`

9]b`k`Yb][`VYggYf`g]Y`h`Yg`ZØf`XUg`Zf`Åb`\_]gW`Y`8i`c`5i`VghUXhi`bX  
5bgVUW`Ui`gž`XYfYb`5i`ZY]bUbXYfhfYZZYb`Ua`GUa`ghU[`ni`Y]bYa  
I`bYbHgW`]YXYb`ZØ`fhY`"K`Å`fYbX`5i`VghUXh]b`XYf`j`Yf[`Ub[`YbYb  
GU]gcb`bcW`]a`Gd]hYbZY`X`XYf`HUVY`Y`U[`]YfhYž`\\UVYb`g]W`X]Y  
9fk`Ufhi`b[`Yb`XYf`5bgVUW`Yf`Y`Yf`i`a`XYb`?`UggYbYf`\\U`h[`YXfY`h`h`  
8cW`Ui`W`XYf`Di`b`\_h[`Yk`]bb`\\]Zi`\_Y]bYa`XYf`VY]XYb`HYUa`g  
k`]f`\_]W`ž`g]Y`ghY`\\Yb`XYbb`cW`]b`XYf`b`Å`fYb`5Vgh]Y[`g[`YZU`fž`Y  
bUW`XYb`@Y]ghi`b[`Yb`XYf`\_ca`a`YbXYb`K`cW`Yb`"

A`h`YXYa`Gd]Y`hU[`k`]fX`X]Y`G]hi`Uh]cb`ZØf`HØf`\_[`ØWØ`A`ØbW`Yb  
VYXfc`\\]W`Yf`"8]Y`5a`V]h]cbYb`XYg`J`YfY]bgž`bUW`XYb  
<YfUi`gZc`fXYfi`b[`Yb`XYg`Y`hnhYb`\\Å`fYg`ni`fØW`\_[`Y`\_Y`\\fh`ni`gY]bž  
\_ØbbhYb`gW`cb`VU`X`k`]YXYf`[`YZ`Å`fXYh`gY]bž`k`Ybb`g]Y`b]W`h  
gW`bY`gha`Ø[`\\]W`]bg`Gd]Y`Z]bXYb`"8Yf`8fi`W`\_Ui`Z`X]Y`Gd]Y`Yf`i`bX  
XUg`HfU]bYfhYUa`ghY][`h`gdØfVUf`"9g`V`Y]Vh`UVni`k`UfhYbž`cV`g]Y`X]Y  
K`YbXY`gW`UZZYbž`i`a`Ui`g`XYf`5Vgh]Y[`gncbY`\\YfUi`gni`\_ca`a`Yb  
i`bX`X]Y`Ui`ZghfYVYbXYb`HYUa`g`\\]bhYf`g]W`ni`"UggYb`"

8]Y`K`YhhVYk`YfVgg]hi`Uh]cb`]b`XYf`F`Y[`]cbU`][`U`6UmYfb`\_ØbbhY  
gdUbbYbXYf`b]W`h`gY]bž`k`Å`fYbX`Y]b][`Y`A`UbbgW`UZhYb`i`a`XYb  
?`UggYbYf`\\U`h`\_Åa`dZYbž`gW`Y]bYb`UbXYfYž`k`]Y`XYf`:`7`9]bhfUW`h  
6Ua`VYf[`ž`X]Y`?`i`fj`Y`[`Y`\_f]Y[`h`ni`\\UVYb`i`bX`:`c`fhgW`f]hhY`]b`]`fY  
[`i`hY`Dcg]h]cb`ni`a`UW`Yb`"Gc`k`]fX`XYf`J`Yf`Ui`ZXYf`GU]gcb  
g]W`Yf`]W`\_Ui`W`XYb`7`\\UfU`\_hYf`i`bX`X]Y`K`]XYfghUbXg`fUZh`XYf  
6YhY]][`hYb`Ui`Z`X]Y`DfcVY`ghY`Yb`"

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