

A c hc ffUXZU\ fYb`]b`F \ Y]b`UbX!DZU`n.
: Ugn]bUh]c b`hfc hn`ghY][YbXYf`I bZÄ`Y

Hfc hn`ghY][YbXYf`A c hc ffUXi bZÄ`Y`]b`F \ Y]b`UbX!DZU`n`V`Y]Vh
X]Y` : Ugn]bUh]c b`ZØf`XUg` : U\ fYb`i b[YVfcWYb"
G]WYf\Y]hgh]ddg`i bX`dYfgØb`]WY`9fZU\fi b[Yb`XYf`6]_Yf"

8]Y` : Ugn]bUh]c b`XYg`A c hc ffUXZU\ fYbg`]gh`i bVYghfY]hVUfž`g`Y`Vgh
Ub[Yg]W`hg`XYf`U`Ufa`]YfYbXYb`Ni bU`a` Y`j`cb`A c hc ffUXi bZÄ`Yb
]a`b`ØfX`]WYb`F \ Y]b`UbX!DZU`n"@Ui`h`Y]bYf`U`hi`Y`Y`b`GhUh]gh]_`XYg
Dc`]nY]dfÄg]X]i`a`g`?cV`Ybn`YfY][bYhYb`g]W`]a``&\f`&\$&`'`VYfY]hg
Yhk`U`, *`\$`A c hc ffUXi bZÄ`Y`"8]Yg`ZØ\fhini`Y]bYf
VYgc f[b]gYffY[YbXYb`G]hi`Uh]cbž`XYbb`a`Y`f`U`g`*`\$\$` : U\ fYf]bbYb
i`bX` : U\ fYf`Yf`]hhYb`XUVY]`hY]`g`g`Wk`YfY`J`Yf`Yhni`b[Ybž`i`bX`Y]XYf
j`Yf`cfYb`]b`XYb`Y`hnhYb`K`c`WYb`g`YW`g`A`Ybg`WYb`]`f`@YVYb"
8]YgY`9bhk`]W`_`i`b[Yb`ghY`Y`b`X]Y` : fU[Y.`K`Ufi`a`n]Y\Yb`j`]Y`Y
A c hc ffUXZU\ fYf`XUg`F`]g]_`c`]b`?Ui`Z`c`V`k`c`\`X]Y` ; YZU\`f`gc
c`ZYbg]W`h`]W`]`gh3

8]Y`5bn]Y\`i`b[g_fUZh`XYg`A c hc ffUXZU\ fYbg`

8]Y`6YgW`fY]Vi`b[]`j`cb``x`UW`]a``9]b][ž`Y]bYa` : U\ f`Y\`fYf`i`bX
`Y]XYbgW`UZh]W`Yb`A c hc ffUXZU\ fYfž`VYgW`fY]Vh`X]Y
5bn]Y\`i`b[g_fUZh`XYg`A c hc ffUXg`hfYZZYbX.`8`Ug`]ghž`U`g`_`ØbbY`a`Ub
Z]Y[Yb`" `J`]Y`Y`A c hc ffUXZU\ fYf`Ya`dZ]bXYb`Y]b` ; YZØ\`j`cb` : fY]\Y]h
i`bX`5XfYbU`]bž`k`Ybb`g]Y`Ui`Z]\`fYf`A`UgW`]bY`Xi`fW`X]Y`@UbXgW`UZh
XØgYb`"8]YgY`Yi`d\cf]g]YfYbXY`9fZU\fi`b[`g`W`Y]bh`c`Zh`gc`ghUf`_`ni
gY]bž`XUgg`g]Y`X]Y`Gcf[Y`j`cf`I`bZÄ`Yb`]b`XYb`<]bhYf[fi`bX`XfÄb[h`
9]b][`VYhc`b`hž`XUgg`X]Y`a`Y]ghYb`6]_Yf`g]W`Yf`g]bXž`XUgg`g]Y`gck`c`\`
]\f` : U\ fnYi [`U`g`Ui`W`X]Y`J`Yf`_`Y`fg`VYX]b[i`b[Yb`]a` ; f]Z`\UVYb"

I`bZÄ`Y`i`bX`X]Y`XUa`]h`j`YfVi`bXYbYb`F`]g]_`Yb

⊕·XYb`YhnhYb`J\ fYb`[UV`Yg`Xi fW`X]Y`[YghY][YfhY`5bnU\`Ub
l bZÀ`Yb`ghYhg`VYgcf[b]gYffY[YbXY`6Yf]W`hY" `6YgcbXYfg
[YZÀ`f`]W`]ghž`XUgg`A chc`ffUXZU\ fYf`Ui Z[fi bX`XYg`ZY\`YbXYb
GW`i hnYg`Y]bYf`5i hc`_UfcggYf]Y`VY]`l bZÀ`Yb`cZi`Yf\`YV`]W`Y
J Yf`Yhni b[Yb`Yf`Y]XYb" `8 Ub]Y`GUi YfVc`fbž`Y]b`) !`À`f][Yf
A chc`ffUXZU\ fYf`Ui g`A ØbghYfa`U]ZY`Xž`Yf`]h`]b`XYb`5`dYb`Y]bYb
Ghi fnž`_cbbhY`YXcW`bi f`a`]h`Y]bYf`gW`k YfYb`DfY`i b[
XUj`cb`_ca`a`Yb" `Hf`chn`X]YgYg`J`cfZU`g`V`Y]Vh`Yf`XYf`@Y]XYbgW`UZh
ZØfg`A chc`ffUXZU\ fYb`hfYi`i`bX`k ØfXY`XUfUi`Z`b]Ya`U`g`j`Yfn]W`hYb
k`c`Yb"

K ØbgW`Y`ZØf`Y]b`VYggYfYg`A`]hY]bUbXYf`Ui`Z XYf`GhfU»`Y

: Øf`Y]bY`J`YfVYggYfi b[`XYf`J`Yf`_Y`f`gg]hi`Uh]cb`d`À`X]Yfh`Ui`W`F`U`Z
GUi`YfVc`fbž`8`Ub]Y`g`J`UhYf" `G]Y`k`ØbgW`Yb`g]W`ž`XUgg`5i`hc`ZU\`fYf
fØW`_g]W`hgj`c`Yf`k`YfXYb" `⊕`j`]Y`Yb`UbXYfYb`@`À`bXYfbž`k`]Y
VY]gd]Y`gk`Y]gY`⊕`U`]Ybž`[`YVYb`5i`hc`ZU\`fYf`XYb`A`chc`ffUXZU\`fYfb
a`Y`f`D`Uhm`ni`a`i`_`VYf`c`Yb" `⊕`a`i`;`Y[`YbgUhn`XUni`Yf`YVYb`X]Y
GUi`YfVc`fbg`]b`8`Yi`hgW`UbX`cZi`XUg`;`Y[`YbhY]`i`5i`hc`ZU\`fYf`n]Y\`Yb
UVg]W`h`]W`]b`X]Y`;`U\`fV`U\`ba`]hhYž`i`bX`X]Yg`_`Ubb`gW`bY`
[`YZÀ`f`]W`k`YfXYb"

H]ddg`ni`f`9f`\`Ø`i`b[`XYf`J`Yf`_Y`f`gg]W`Yf`Y`]h

l`a`X]Y`G]W`Yf`Y`]h]a`GhfU»`Ybj`Yf`_Y`f`ni`Yf`\`Ø`Ybž`Ya`dZY\`Yb
:`UW`Yi`hY`k`]Y`⊕`UW`]a`9]b][`ž`XUgg`gck`c`\`A`chc`ffUX`!`U`g`Ui`W`
5i`hc`ZU\`fYf`Y]b][`Y`k`]W`h][`Y`F`Y[`Y`b`VYUW`hYb" `8`Uni`i`[`Y\`Ø`fh`XUg
9]b`U`hYb`XYf`;`YgW`k`]bX][`_Y]hgVY[`fYbni`b[`Yb`i`bX`X]Y
5i`Za`Yf`_gUa`_Y]h`Ui`Z`UbXYfY`J`Yf`_Y`f`ghY]`bY\`a`Yf" `5i`hc`ZU\`fYf`k`]fX
[`YfUhYbž`ghYhg`Y]bYb`GW`i`hYfV`]W`_`Xi`fW`ni`ZØ\`fYbž`i`a`i`A`chc`ff`À`XYf
]a`h`chYb`K`]b`_Y`b]W`h`ni`ØVYfgY\`Ybž`]bgVYgcbXYfY`Ub`Yb[`Yb
?`i`fj`Yb`cXYf`i`bØVYfg]W`h`]W`Yb`?`fYi`ni`b[`Yb" `5i`»`YfXYa`g]bX
J`Yf`_Y`f`gg]W`Yf`Y`]hghfU]b]b[`g`ZØf`VY]XY`;`fi`ddYb`gY\`f`g]bbj`c`ž`i`a
g]W`Ui`Za`Ø[`]W`Y`;`YZU\`fYb`VYggYf`j`cfVYfY]hYb`ni`_`Ø`bbYb"

Ni`gUa`a`YbZUggYbX`⊕`Aggh`g]W`gU[`Ybž`XUgg`X]Y`@Y]XYbgW`UZh`ZØfg

A chcffUXZU\fyb`i b[YVfcW\Yb`]ghž`hfc`m`XYf`NU\`Yb`i bX`F]g]_Ybž
X]Y`XUa`]h] YfVi bXYb`g]bX``8]Y`5bg]W\hYb`XYf` : U\fyf`i bX`X]Y
: cfhV]`Xi b[`]a`l`a` [Ub[`a`]h`XYb` ; YZU\fyb`]a` `GhfU» Ybj Yf_Y\`f
_`ÒbbhYb`Y]bYb`k`]W\h][Yb`6Y]hfU[`ni`f`FYXi`n]Yfi b[`XYf
l`bZU``nU\`Yb``Y]ghYb`"

8YhU]`g

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