

8 Yf`Yfa cfXYhY`5`dhfUi a .`? fYZY`XYf`G\ck
Vf]b[h`? f]a]]bg`K c\bn]a a Yf

9f`VYb`G]Y`X]Y`dUW_YbXY`YfghY`9d]gcXY`j cb / ei ch/8Yf
Yfa cfXYhY`5`dhfUi a / ei ch/žY]bYf`Ya ch]cbU`Y` 8!
5b]a Uh]cbggYf]Y`j cb`7\`f]gh]Ub`A`ÀfgW`Y`ØVYf`Y]b
[fUi gUa Yg`J YfVfYW`Yb`]b`DYfi "

9]b`6`]W_`Ui Z`X]Y`K]f_`i b[`j cb`A`YX]Yb`Ui Z
fYU`Y`HfU[ÒX]Yb

8]Y`bYi Y`i bhYf\U`hi b[g!G\ck` 8Yf`Yfa cfXYhY`5`dhfUi a ž
[Y`Y]hYhj cb`7\`f]gh]Ub`A`ÀfgW`Y`Ui`g`? fYZY`Xž`\Uh`X]Y
5i Za Yf_gUa _Y]hj]Y`Yf`Ni`gW`Ui`Yf`YffY[h"8]YgY`GYf]Y`]gh`b]W`h
bi`f`Y]b`i bhYf\U`hgUa Yg`:`cfa Uhž`gcbXYfb`k]fZi[`Y]W`nY]h][
k]W`h][Y`[YgY`gW`UZh]W`Y`:`fU[Yb`Ui`Zž]bgVYgcbXYfY`ØVYf`XYb
9]bZi gg`j cb`A`YX]Yb`Ui Z`X]Y`K U\fbY\`a`i b[`j cb`:`Yk U`hi bX
J YfVfYW`Yb"

9]b`h]YZ[fY]ZYbXYg`Dfc`Ÿ`_h`ØVYf`Y]b`fYU`Yg
J YfVfYW`Yb

8]Y`YfghY`9d]gcXY`X]YgYf`nY\`bhY]`][Yb`GYf]Yž`X]Y`VY]`BF`K]g]cb
Ui`g[YghfU\`h`k]fXž`VY`Yi`W`hYh`Y]b`[fUi`gUa`Yg`J YfVfYW`Ybž`XUg
XUg`ť`b[Y`@YVYb`j`cb`?`Uf`Už`Y]bYa`nk`Ò`Z`À`\f][Yb`A`ÀXW`Yb`]b
DYfi`ž`ØVYfgW`UhYh"K`À`\fYbX`X]Y`Ni`gW`Ui`Yf`]b`X]Y`Ub]a`]YfhY
K`Y`h`XYg`:`]a`g`Y]bhUi`W`Ybž`k`YfXYb`g]Y`Ui`W`a`]h`XYf`\UfhYb
F`YU`]h`À`h`_`cb`Z`f`cb]Yfhž`X]Y`\`]bhYf`XYf`9fn`À`\`i`b[`ghY`\h"8]Y
hfU[]gW`Yb`i`a`gh`À`bXY`j`cb`?`Uf`Ug`G`W`]W`gU`nY][Ybž`k]Y`k]W`h][`Yg
]ghž`ØVYf`gc`W`Y`H`Y`a`Yb`b`UW`ni`XYb`_`Yb`i`bX`XUf`ØVYf`ni
X]g`_`i`h]YfYb"

8]Y `F c ``Y `XYf `A YX]Yb `i bX `]\fY

J YfUbhk cfhi b[

⇒ XYf`YfghYb`9d]gcXY`ghY`Yb`X]Y`gY`hgUa Yb`9!A U]`gž`X]Y
F YXU`_hYi f`>Ub`Hi `dY`Ui g`DYfi `Yf`À`hž]a `A]hhY`di b`_h``8]YgY`A U]`gž
Ui g[YghUhhYh`a]h`VYi bfi `\[[YbXYb`6]`XYfb`j cb`? Uf`Už`ÒgYb`X]Y
: fU[Y`Ui gž`cV`g]Y`k]f`_]W`<]bk Y]gY`Ui Z]`f`GW`]W`gU`XUfghY`Yb
cXYf`YX][`]W`Y]bY`Z]_hj Y`; fi bX`U[Y`ZØf`X]Y`GYf]Y`g]bX``8]Yg`k]fZh
Y]b`YggYbh]Y`Yg`@]W`hUi Z`X]Y`J YfUbhk cfhi b[`j cb
A YX]YbdfcXi nYbhYbž]bgVYgcbXYfY`k Ybb`Yg`i a `gYbg]V`Y`H`Ya Yb
[Y`h`

; YgdfÀW`ØVYf`XUg`Dfc`Y`_h`i bX`gY]bY

⇒ a d`]_Uh]cbYb

8]Y`_fYUh]j Yb`?ÒdZY`]\bhYf` 8Yf`Yfa cfXYhY`5`dhfUi a `ZcfXYfb
XUg`Di V`]i a `XUni `Ui Z`ØVYf`X]Y`_f]h]gW`Yb`H`Ya Yb`XYf`; Yk U`h
i bX`XYf`A]gg`UbX`i b[`bUW`ni XYb`_Yb``8]Y`8UfghY``i b[`gc`W`Yf
⇒ \U`hY`]b`Y]bYf`i bhYf`U`hgUa Yb`; cfa ž]b`X]YgYa `: U``U`g`` 8!
5b]a Uh]cbž`Vf]b[h`X]Y`: fU[Y`Ui Z`]bk]Yk Y]h`XUg`Di V`]i a `ZØf`X]Y
GdUbbi b[Yb`nk]gW`Yb`i bhYf`U`hi b[`i bX`Yh`]gW`Yf`8UfghY``i b[
j YfUbhk cfh]W`]gh`

8]Y`_i `hi fY``Y`F`Y`Yj Ubn`XYf`9fnÀ`\`i b[

⇒ a `?cbhYi h[`cVU`Yf`J YfVfYW`Ybž]bgVYgcbXYfY`]b
9bhk]W`_i b[g`ÀbXYfb`k]Y`DYfi ž]gh`Yg`j cb`[fc» Yf`6YXYi hi b[ž
9a dUh`Y]i bX`J Yfgh`ÀbXb]g`ni `Ybhk]W`_Y`b``8]Y`GYf]Y`_ÒbbhY`Y]b
6Yk i gghgY]b`ZØf`X]YgY`<YfUi gZcfXYfi b[Yb`gW`UZZYb`i bX`Y]bY
8]g`_i gg]cb`ØVYf`A Ò[`]W`_Y]hYb`Ubghc» Ybž`k]Y`gc`W`Y`H`Ya Yb
gYbg]VY``i bX`fYgdY`_hj c``Ub[Y[Ub[Yb`k YfXYb`_ÒbbYb``K `À`fYbX
X]Y`Ni gW`Ui Yf`]b`X]Y`K Y`h`j cb`? Uf`U`Y]bhUi W`Ybž`k]fX`X]Y`; fYbnY
nk]gW`Yb`;]_h]cb`i bX`FYU`]h`h`Ui Z`Y]bY`bUW`XYb`]W`Y`K Y]gY
Yf`_i bXYh`

Ni gUa a YbZUggi b[`i bX`5i gV`]W`

8Yf`Yfa cfXYhY`5`dhfUi a`]gh`b]W`h`bi f`Y]bY`i bhYf\U`hi b[gg\ck ž
gcbXYfb`Y]b`Dfc`Y`_hž`XUg`k`]W`h][`Y`8]g_i`gg]cbYb`UbFY[`h`i`bX`Ui`Z
X]Y`J`YfUbhk`cfhi`b[`j`cb`A`YX]Yb`\]bk`Y]gh``9g`k`]fX`gdUbbYbX`gY]b
ni`VYcVUW`hYbž`k`]Y`X]Y`b`ÅW`ghYb`9d]gcXYb`X]Y`;`YgW`]W`hY`i`a
?Uf`U`k`Y]hYfYb`hk`]W`_Y`b`i`bX`k`Y`W`Y`5i`gk`]f_i`b[`Yb`X]YgY`Ui`Z`X]Y
[`YgY`g`W`UZh`]W`Y`K`U`fbY`a`i`b[`j`cb`;`Yk`U`h`i`bX`A`]ggVfUi`W`
\UVYb`k`]fX"

·`B`5;

8YhU]`g

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