

9]bVfi W`]b `; UbXYf_YgYY. `Dc`]nY] `gi W` h
NYi [Yb `ZØf`K Yf_nYi [X]YVghU\`

I bVY_UbbhY `VfUWYb`]b`; UbXYf_YgYY `]b`A YhU`VUi VYhf]YV
Y]b`"Dc`]nY] `gi W` h`NYi [Yb`"K]W`h][Y`<]bk Y]gY`YfVYhYb"

\$) "\$- "&\$&(` `%(. \$)

`Dc`]nY]]bgdY_h]cb`8Y`a Yb\cfgh#C`XYbVi f[` `@UbX`#
K YgYfa UfgW`

⇒b `; UbXYf_YgYY `Uh`Y]b`U`Ufa]YfYbXYf`J cfZU`ghUhh[YZi bXYb.
I bVY_UbbhY `g]bX`]b`XYf`BUW`h]j cb`A]hkh cW`Ui Z`8 cbbYfghU[`]b
Y]bYb`A YhU`VUi VYhf]YV`Y]b[YVfcW`Yb`"8]Y`Dc`]nY] `Uh`gcZcfh
9fa]hhi b[Yb`Ui Z[Ybca a Yb`i bX`V]hhYh`X]Y`6Yj Ò`_Yfi b[`i a
A]h\`ZY"

8Yf`9]bVfi W` YfY][bYhY`g]W`nk]gW`Yb`XYa `("GYdhYa VYf`&\$&(ž
%+. \$ \$ `I \fž`i bX`XYa `) "GYdhYa VYf`&\$&(ž\$+. () `I \f`HÄhYf`UVYb
g]W` [Yk U`hgUa `Ni [Ub[`ni `Y]bYf`< U`Y`]b`XYf`GhfU»Y` 5b`XYf
GhUfhVU`b `j YfgW`UZZh`5i g`XYa `6Yhf]YV`k i fXYb`j YfgW`]YXYbY
K Yf_nYi [Y`[Yghc`Ybž`X]Y`X]Y`8]YVY`cZZYbVUf`a]h`Y]bYa
[Yghc`YbYb`; U\fnYi [`UVhfUbgdcfh]YfhYb`I a `X]Y`6Yi hY
UVni hfUbgdcfh]YfYbž`YbhZYfbhYb`g]Y`Y]b`Nui bY`Ya Ybhž`XUg`XYb
Ni [f]ZZ`Ui Z`XUg`;]fa Yb[Y`ÄbXY`Yfa Ò[`]W`hY"

8 YhU]`g`ni a `9]bVfi W`

8]Y`6Y`ÖfXYb`g]bX`bi b`XUfUb`]bhYfYgg]Yfhž`a Ò[`]W`Y`NYi [Yb`ni
Z]bXYb`"K Yf`ja `Ub[Y[YVYbYb`NY]hfUi a `Yhk Ug`J YfXÄW`h][Yg
VYcVUW`hYh`Uhž`gc`hY`g]W`i bhYf`\$((` %# (%! \$ `Ub`X]Y`Dc`]nY] `]b
K]XYg`Ui gYb`k YbXYb`"; YfUXY`[YZÄ`f`]W`Y`G]hi Uh]cbYb`k]Y`X]YgY

nY][Ybž'k]Y'k]W\h]['Yg']ghž'U'g'; Ya Y]bgW\UZh'UW\hgUa 'ni 'gY]b'i bX
<]bk Y]gY'ni '[YVYbž'X]Y'ni f'5i Z_`Àfi b['gc`W\Yf'J YfVfYW\Yb
VY]hfU[Yb'_`ÒbbhYb"

8 Ug'J cf[Y\Yb'XYf'HÀhYf'XYi hYh'Ui Z'Y]bY'[Yd`UbhY'i bX
n]Y'[Yf]W\hYhY'5_h]cb'\]b"'Gh]Y\`h'a Ub'K Yf_nYi [Y'Ui g'Y]bYa
A YhU`VUi VYhf]YVž'_Ubb'X]Yg'Ui Z'Y]bYb'[Yk YfV`]W\Yb'<]bhYf[fi bX
\]bXYi hYb/'X]Y'K Yf_nYi [Y'_`ÒbbYb'ZØf']`Y[U'Y'5_h]j]hÀhYb'cXYf
]a '6Ui k YgYb'j Yfk YbXYh'k YfXYb"'8]Yg']gh'b]W\h'bi f'Y]b
k]fhgW\UZh]W\Yf'J Yf'i gh'ZØf'XUg'l bhYfbY\`a Ybž'gcbXYfb'_`ÒbbhY
Ui W'5i gk]f_i b[Yb'Ui Z'UbXYfY'l bhYfbY\`a Yb']b'XYf'l a [YVi b[
\UVYbž'X]Y'a Ò[`]W\Yfk Y]gY'À\`b`]W\Y'N]Y'gW\Y]VYb'j cb
9]bVfØW\Yb'g]bX"

9]b'k Y]hYfYf'5gdY_hž'XYf'']b'X]YgYa 'Ni gUa a Yb\Ub['b]W\h
][bcf]Yfh'k YfXYb'gc`hYž']gh'X]Y'G]W\Yf\Y]hg`U[Y']b'; UbXYf_YgYY
i bX'l a [YVi b["'8]Y'k]YXYf\`c'hYb'6Yf]W\hY'ØVYf'9]bVfØW\Y'i bX
UbXYfY'GhfUZhUhb'k YfZYb'Y]b'GW\`U[`]W\h'Ui Z'X]Y'Bchk YbX][_Y]h
j cb'dfÀj Ybh]j Yb'A U» bU\`a Yb'gck c\`Xi fW\`X]Y':]fa Yb'U`g'Ui W
Xi fW\`X]Y'Dc`nY]"9]b'U_h]j Yg'G]W\Yf\Y]hga UbU[Ya Ybž
]bhY`][YbhY'J]XYcØVYfk UW\i b[Yb'bi bX'X]Y'Ni gUa a YbUfVY]h'a]h
Òfh]W\Yb'G]W\Yf\Y]hgX]YbghYb'_`ÒbbhYb'a Ò[`]W\Y'@Øgi b[gUbGÀhnY
gY]bž'i a 'gc`W\Yb'J cfZÀ`Yb'j cfni VYi [Yb"

: Øf'F ØW_ZfU[Yb'ghY\Yb'Zc`[YbXY'?cbhU_h]bZcfa Uh]cbYb'ni f
J YfZØ[i b[.

5`VYfh'GYY[Yfg

Dc`]nY]]bgdY_h]cb'8Y`a Yb\cfgh#C`XYbVi f[!@UbX#K YgYfa UfgW\

DfYggYghY`Y

HY`YZcb.'\$(&&%!%)) - %\$(

9!A U]'.`dfYggYghY`Y4 d]!XY`"dc`]nY]"b]YXYfgUW\gYb"XY

⇒bhYfbYh'k k k "dc`]nY]!XY`a Yb\cfgh"XY

C f][]bU`!7cbhYbhj cb.`Dc`]nY]]bgdY_h]cb`8Y`a Yb\cfgh#C`XYbVi f[
`@UbX`#K YgYfa UfgWłżØVYfa]hhY`hXi fWł`bYk g`U_hi Y``

8YhU]`g

6Ygi WłYb`G]Y`i bg`Ui Z.`b!U["XY