

DfY]ghfÀ[Yf`XYg/ , \$' - /Dck Yf`Zcf
8Ya cWfUWm' , \$' - /'5k UfXg. '9]b '6Y]hfU[
ni f`Gc`]XUf]hÀh

9fZU\fyb`G]Y`U`Yg`ØVYf`XYb/ ei ch/Dck Yf`Zcf
8Ya cWfUWm' ei ch!5k UfX`XYf`D\`]d`A cff]g'; a V<žXYf
n]j][YgY`gWUZh`]WY`b]h]Uh] Yb`Ui gnY]WYbYhž`X]Y`g]WY`ZØf
8Ya c_fUh]Y`i bX`[YgY`gWUZh`]WYb`Ni gUa a Yb`U`h
Y]bgYmYb`"5a`%+"C_hcVYf`&\$&(`k YfXYb`]b`6Yf`]b`X]Y
DfY]ghfÀ[Yf/ ei ch/; YgdfÀW.gVYfY]h`8fYgXYb/ ei ch/ž
/ ei ch/GWU`ca`i bX`GU`Ua / ei ch/i bX
/ ei ch/J YfZUggi b[gV`c[`!`H\Øf]b[Yb`Dfc`Y`_h' ei ch/[YY\fh"
9bhXYW_Yb`G]Yž`k]Y`X]YgY`Dfc`Y`_hY`ni f`: ØfXYfi b[`XYg
8]U`c[g`i bX`ni f`6Y`_Àa dZ b[`j cb`[YgY`gWUZh`]WYf
GdU`hi b[`VY]hfU[Yb"



8Ya c_fUh]gWY`K YfhY`i bX
[YgY`gW UZh`]WYf`Ni gUa a Yb\U`h.`8Yf
5k UfX` Dck Yf`Zcf`8Ya cWfUWm `j cb`D\`]d
A cff]g`; a V<

⇒Y]bYf`NY]hž`]b`XYf`[YgY`gW UZh`]WY`GdU`hi b[Yb`UbXY`gØV`]WYf
[Yk cfXYb`g]bXž`nY][h`X]Y`D\`]d`A cff]g`; a V<`Xi fW`X]Y
JYf`Y]\i b[`XYg` Dck Yf`Zcf`8Ya cWfUWm `5k UfXg`Y]bY`_`UfY
<U`hi b[`ni f`: ÒfXYfi b[`XYa c_fUh]gWYf`K YfhY`i bX`XYg`gcn]U`Yb
Ni gUa a Yb\U`hg`"5a`%+`"C`_hcVYf`&\$&(`ZUbX`]b`6Yf`]b`X]Y

ZY]Yf`]WXY`DfY]gj Yf`Y]\i b[`ghUhz`VY]`XYf`XfY]`\YfUi gfU[YbXY
`b]h]Uhj] Yb`a`]h`Yk Y]`g`&\$\$`\$`9i fc`Ui g[YnY]W`bYh`k i fXYb``8]YgY
`b]h]Uhj] Yb`Y]ghYb`Y]bYb`k Yfhj c``Yb`6Y]hfU[`ni f`GhA`f`_i b[`XYg
Ni gUa`a` Yb`U`hg`]b`8Yi hgW`U`bX"

8]Y`DfY]ghfA[Yf`g]bX.

- ; Ygdf`A`W`gVYfY]h`8`fYgXYb` `9]bY``b]h]Uhj] Y`Z`X]Y
A YbgW`Yb`]b`GUW`gYb`ni gUa`a` YbVf]b[h`z`i`a` `XYb`8]U`c[
ni`Z`O`f`X`Y`f`b`i`b`X`J`c`f`i`f`h`Y`]Y`U`V`n`i`V`U`i`Y`b`"
- GW`U`c`a` `i`b`X`GU`Ua` ` `9]b`D`f`c`Y`_`h`]b`G`h`i`h`h[`U`f`h`z`X`U`g`g]W`X
U`_`h`j] `Z`O`f`X`Y`b`8]U`c[`n`k`]g`W`Y`b` `O`X]g`W`Y`b`i`b`X
a`i`g`]a`]g`W`Y`b`; Ya`Y]b`g`W`U`Z`h`Y`b`Y]b`g`Y`m`h`i`b`X`[`Y[`Y`b
5`b`h]g`Ya`]h]g`a`i`g`i`b`X`U`b`h]a`i`g`]a`]g`W`Y`b`F`U`g`g]g`a`i`g`_`A`a`d`Z`h`"
- J`Y`f`Z`U`g`g`i`b[`g`V`c[` `H`\`O`f]b[`Y`b`D`f`c`Y`_`h` `9]b`Y
D`U`h`z`c`f`a` `U`i`g`6`Y`f`]b`Z`X]Y`f`Y`W`h`]W`X`Y`5`b`U`m`g`Y`b`ni` `U`i`h`c`f]h`A`f`!
d`c`d`i` `]g`h]g`W`Y`b`9`b`h`k`]W`_`i`b[`Y`b`]b`H`\`O`f]b[`Y`b`V`Y`f`Y]h`g`h`Y`h`
i`b`X`U`i`Z`X]Y`6`Y`X`Y`i`h`i`b[`X`Y`f`F`Y`W`h`g`g`h`U`U`h`]W`X`_`Y]h
U`i`Z`a`Y`f`_`g`U`a` `a`U`W`h`"

8]Y` `fm`z`V`Y`g`h`Y`\`Y`b`X`U`i`g`b`U`a` \`U`Z`h`Y`b`9`i`d`Y`f`h`Y`b`k`]Y`D`g`m`W`c`c[`Y`b
i`b`X`D`c`]h]_`k`]g`g`Y`b`g`W`U`Z`h`Y`f`b`z`k`A`\`h`Y`X]Y`g`Y` `b]h]Uhj] Yb`Ui`Z[`fi`b`X
]\`f`Y`f`_`f`Y`U`h]j` Yb`5`b`g`A`h`n`Y`ni`f` `V`Y`f`k`]b`X`i`b[`j`c`b`[`Y`g`Y``g`W`U`Z`h`]W`X`Y`f
D`c`U`f]g]Y`f`i`b[`U`i`g`6`Y`g`c`b`X`Y`f`Y`g`5`i`[`Y`b`a`Y`f`_`Y[`h`Y`X]Y` `fm`U`i`Z`X]Y
: `O`f`X`Y`f`i`b[`X`Y`g`8]U`c[`g`i`b`X`X`Y`b`K`]``Y`b`Z`Y]b`f`Y`g`d`Y`_`h]c``Y`g
A`]h]b`U`b`X`Y`f`ni` `g`W`U`Z`Y`b``H`c`f`g`h`Y`b`5`V][`z`; `Y`g`W`A`Z`h`g`Z`O`f`Y`f`X`Y`f
D`\]d`A`c`f`f]g`; a`V`<`z`V`Y`h`c`b`h`Y`k`A`\`f`Y`b`X`X`Y`f`J`Y`f`U`b`g`h`U`h`i`b[`X]Y
J`Y`f`U`b`h`k`c`f`h`i`b[`j`c`b`l`b`h`Y`f`b`Y`\`a`Y`b`Z`X]Y`; `Y`g`Y``g`W`U`Z`h`U`_`h]j` `ni
i`b`h`Y`f`g`h`O`h`n`Y`b.`G]W`h`V`U`f`Y`g`9`b[`U[`Ya`Y`b`h`]g`h`U`b[`Y`g]W`h`g`X`Y`f
ni`b`Y`\`a`Y`b`X`Y`b`[`Y`g`Y``g`W`U`Z`h`]W`X`Y`b`G`d`U`h`i`b[`k`]W`h]h[`Y`f`X`Y`b`b`Y`"

8]Y` `b]h]Uhj] Yb`nY][`Y`b`z`k`]Y`k`]W`X`h][`Y`g`]g`h`z`Y]b`Y`b`F`U`i`a` `Z`O`f`X`Y`b
5`i`g`h`U`i`g`W` `ni` `g`W`U`Z`Y`b`z`]b`g`V`Y`g`c`b`X`Y`f`Y`]b`Y]b`Y`f`N`Y]h`z`]b`X`Y`f
J`c`f`i`f`h`Y`]Y`i`b`X`A`]g`g]Y`f`g`h`A`b`X`b]g`g`Y`]a`a`Y`f`k`]Y`X`Y`f`ni`b`Y`\`a`Y`b``>`X`Y
X]Y`g`Y`f`; `f`i`d`d`Y`b`\`U`h`Y`g`g]W`X` `ni`f`5`i`Z[`U`V`Y`[`Ya`U`W`h`z
[`Y`g`Y``g`W`U`Z`h`]W`X`Y`6`U`f`f]Y`f`Y`b`ni` `X`i`f`W`V`f`Y`W`Y`b`i`b`X`j`Y`f`V]b`X`Y`h
j`Y`f`g`W`]Y`X`Y`b`Y`A`Y`b`g`W`Y`b`]b`\`f`Y`f`5`f`V`Y]h``8]Y`H`f`U`b`g`Z`c`f`a`U`h]c`b`j`c`b
Y]b`Y`f`G]c`X`U`f]h`A`h` `ni` `Y]b`Y`f`V`f`Y]h`Y`f`Y`b`[`Y`g`Y``g`W`U`Z`h`]W`X`Y`b
G`c`]X`U`f]h`A`h`g`h`Y`\`h`X`U`V`Y`]a` `J`c`f`X`Y`f[`fi`b`X"

8]Y`g`Y`5`i`g`n`Y]W`X`b`i`b[`Z`O[`h`g]W`X`]b`X`U`g`i`a`Z`U`g`g`Y`b`X`Y
[`Y`g`Y``g`W`U`Z`h`g`d`c`]h]g`W`X`Y`9`b[`U[`Ya`Y`b`h`X`Y`f`D`\]d`A`c`f`f]g`; a`V`<`Y]b`z
X`U`g`X`U`f`O`V`Y`f`\]b`U`i`g`U`i`W`X]Y`G`h`X]Y`b`f`Y]\`Y`K`]Y`k`]f`k`]f`_`]W`X

YVYb i a ZUggh"8]YgY'F Y)\Y'V]YhYh'Y]bYb'k Yfhj c`Yb'6Y]hfU[ni
Y]bYa '_cbghfi _h]j Yb'8]g_i fg'i bX`Y]ghYh'a di `gY'[Y[Yb'X]Y
[YgY`gWUZh]WXY'GdU'hi b["

6YfY]hg']b'XYf'J Yf[Ub[Yb\Y]h'k i fXYb'nU\`fY]WXY'ϕ]h]Uh]j Yb'a]h
XYa '5k UfX'Ui g[YnY]WbYhž'X]Y'g]W' a]h'H\Ya Yb'XYf'N]j]Wci fU[Y
i bX'XYg'X][]hU`Yb'9b[U[Ya Ybhg'Ui gY]bUbXYfgYhnYb"8Yf' Dck Yf
Zcf'8Ya cWfUWm '5k UfX'j YfXYi h]W'h'gca]h'b]W'h'bi f'X]Y
K]W'h][_Y]h'XYg'9b[U[Ya Ybhg'Z0f'X]Y'8Ya c_fUh]Yž'gcbXYfb'Ui W
X]Y'A Ò[`]W' _Y]hž'U'g'i bhYfbY\ a Yb'U_h]j 'ni 'Y]bYf'cZYbYfYb'i bX
]b_'i g]j YfYb'; YgY`gWUZh'VY]ni hfU[Yb"ϕXYa 'D\]'d'A cff]g'; a V<
gc`WY'ϕ]h]Uh]j Yb']bg'F Ua dYb`]W'h'f0W_hž'k]fX'Y]b'NY]WYb
[YgYhnh'Z0f'X]Y'Bchk YbX][_Y]hž'[Ya Y]bgUa Y'K YfhY'ni
i bhYfgh0hnYb'i bX'X]Y'XYa c_fUh]gWXY'?i `hi f'ni 'ZYgh][Yb"

8YhU]`g

6Ygi WXYb'G]Y'i bg'Ui Z.'a Y]b!VYf`]b"bYh