

Ghfca Ui gZÄ`Y`]b`XYf`FY[]cb.`G9FB57 fY[]ghf]Yfh`ØVYf`&* "\$\$\$`6YgWk YfXYb

A Y\ f`U`g`&* "\$\$\$`6YgWk YfXYb`ØVYf`Ghfca Ui gZÄ`Y`]b`7\`Y.
, \$i`Ui`g`XYf`A Yhfcdc`]hUbfY[]cb``6YhfcZZYbY`_`ÖbbYb`g]Wk`Ub
G9FB57`k`YbXYb"

⇒ 5i [i ghYf`YVhY`X]Y`FY[]cb`NYbhfU`!GØXWk`Y`Y]bY`a`Ugg]j`Y
FY[\`Y`j`cb`Ghfca Ui gZÄ`Y`b`ž`X]Y`b`U\`Y`ni`+`\$\$"\$\$\$`<`Ui`g\`U`hY
VYhfUZyb" `≠`X]Y`gYf`G]hi`Uh]cb`\`Uh`XYf`b`Uh]cb`U`Y
J`Y`fV`f`Ui`W`Y`fg`W`i`hn`X]Y`b`ghž`G9FB57`ž`Y]bY`K`Y`Y`j`cb`&*",`(`*
6YgWk`YfXYb`ØVYf`X]Y`VYhfcZZYbYb`Ghfca`UbV]Y`hYf`j`Y`fnY]W`b`Y`h"
:`Ugh`,`\$i`X]Y`gYf`FY`_`Ua`Uh]cb`Yb`ghUa`a`hYb`Ui`g`XYf`FY[]`i`b
A`Y`hfcdc`]h`U`b`U`ž`k`c`X]Y`5i`gk`]f`_i`b[`Yb`Ua`i`[`fUj`]Y`fYb`X`ghYb`k`UfYb"

8]Y`8`UhYb`nY][`Yb`ž`X`Ugg`i`bhYf`XYb`VYhfcZZYbYb`;`Ya`Y]b`XYb`j`cf
U`Y`a`i`@Ja`dUž`E`i`j`]W`fU`i`bX`Di`XU\`i`Y`ghUf`_`]h`hYb" `@Ja`dU`ZØ`fhY
X]Y`@]ghY`a`]h`Xi`fW`gW`b]h`h]W`k`%\$")`)*`<`Ui`g\`U`hYb`Ub`ž`X]Y`c`b`Y
Ghfca`k`UfYb`ž`[`YZc`[`h]j`cb`E`i`j`]W`fU`a`]h`i`"+`+,`(`i`bX`Di`XU\`i`Y`a`]h
+`"\$`(%`VYhfcZZYbYb`<`Ui`g\`U`hYb" `5i`W`Ub`XYfY`;`Ya`Y]b`XYb`k`]Y
A`U]d`Öž`@Ug`7`cb`XYg`i`bX`FY`Wc`Y`hU`j`Y`fnY]W`b`Y`hYb`\`c`Y`NU`\`Yb`Ub
Ghfca`i`bhYfVfYW`i`b[`Yb"

<]bhYf[fi bX`XYf`Ghfca Ui gZÄ`Y`

8]Y`gY`Ui`»`Yf[`Yk`Ö`b`]W`Yb`GhÖfi`b[`Yb`VY[`UbbYb`Ua`i`%`5i [i gh
i`bX`gY`hnhYb`g]W`ØVYf`a`Y`fYfY`K`cW`Yb`Zc`fhž`k`Ug`ZØf`j`]Y`Y
<`Ui`g\`U`hY`Äi`»`Yfgh`\`YfUi`gZc`fXYfb`X`k`Uf" `≠`Y]b][`Yb`i`Ä`Yb`V`]YVYb
X]Y`A`YbgW`Yb`V]g`ni`%+`HU[`Y`c`b`Y`Ghfca`ž`k`Ug`b]W`h`bi`f
I`b`UbbY`a`]W`_Y]hYb`j`Yfi`fgUW`hYž`gcb`XYfb`Ui`W`i`fU[`Yb`ni`f
Ni`j`Yf`Ägg][`_Y]h`XYf`Ghfca`UbV]Y`hYf`Ui`Zk`UfZ"

⊖a]hYb`X]YgYf`<YfUi gZcfXYfi b[Yb`\\Uh`G9FB57`J Yfgh0»Y`[Y[Yb
X]Y`Y`Y`_hf]gWYb`J Yfgcf[i b[gi bhYfbY\\a Yb`UV[YZUb[Yb`i bX
bchk YbX][Y`GWf]hY`i bhYfbca a Ybž`i a`X]Y`5b`Y[Yb`XYf
6YhfcZZYbYb`ni`_`ĀfYb`"9]b`nYbhfU`Yf`Di b`h`XUVY`]`ghž`XUgg`hfc`hn
XYf`A`Ò[`]W`_Y]hž`9bhgW`ĀX][i b[Yb`Ui`W`c`\\b`Y`Zcfa`Y`Y
6YgWk`YfXY`ni`Yf`U`hYbž`XUg`9]b`fY]WYb`Y]b`Yf`6YgWk`YfXY`XYb
VYhfcZZYbYb`<Ui`g`U`hYb`\\Y`ZYb`_Ubbž`\\fY`]bX]j`]Xi`Y`Yb
GWk`]Yf][`_Y]hYb`i`bX`GW`ĀXYb`ni`Xc`_i`a`Ybh]YfYb`"8]YgY
⊖Zcfa`Uh]cbYb`_ŌbbYb`VY`]XYf`9]b`c`i`b[`\\Ō`YfYf
9bhgW`ĀX][i b[Yb`i`bX`XYf`GhĀf`_i`b[`j`cb`_c`Y`_hj`Yb`6YgWk`YfXYb
\\]ZfY]W`gY]b"

6YgcbXYfg`Ui`ZĀ`][`g]bX`X]Y`NU`\\Yb`Ui`g`A`U]dŌž`k`c`VYfY]hg`&"(* \$
6YgWk`YfXYb`Y]b[Y[Ub[Yb`g]bX/[YZc`[hj`cb`Di`XU\\i`Y`a`]h`%`*`&(
i`bX`@Ja`dU`a`]h`%`(++`"8]YgY`GhUh]gh]_Yb`nY][Yb`b]W`h`bi`f`XYb
l`a`ZUb[`XYg`DfcV`Ya`gž`gcbXYfb`Ui`W`XUg`6YXŌfZb]g`XYf
?cbgi`a`YbhYbž`ZŌf`]fY`F`YW`hY`Y]bni`hfY`hYb"

Dfc`nYggY`ni`f`9bhgW`ĀX][i b [

5`g`F`YU`_h]cb`Ui`Z`X]Y`\\c`\\Y`5bnU`\\`Ub`6YgWk`YfXYb`\\Uh`G9FB57
Y]bYb`ZfY]k`j`][Yb`_c`Y`_hj`Yb`Dfc`nYgg`a`]h`XYa`9bYf[]Yj`Yfgcf[Yf
9bY`]b]h]Yfh`N]Y`X]YgYg`Dfc`nYggYg`]gh`Ygž`Ub[Ya`YggYbY
9bhgW`ĀX][i b[Yb`ZŌf`X]Y`6YhfcZZYbYb`Ui`gni`\\UbXY`b`"⊖
; Y[YbgUhn`XUni`\\UVYb`UbXYfY`i`bhYfbY\\a`Yb`k`]Y`7; 9ž
7\\]ei`]bhUž`GUYgUž`7cX]bYf`i`bX`:`fcbhY`V]g`Ub[`_Y]bY`cZZ]n]Y`Y
GhY`i`b[bU`a`Y`UV[Y[YVYb"

8]Y`A`Ò[`]W`_Y]h`ni`f`6YgWk`YfXY`]gh`ZŌf`X]Y`VYhfcZZYbYb
J`YfVfUi`W`Yf`k`Y]hYf`\\b`c`ZZYb`"8]YgY`_ŌbbYb`ŌVYf`X]Y`K`YVg]hY
G9FB57`"Wž`X]Y`<ch]bY`,`\$\$`+`\$\$`%`\$`c`XYf`]b`Y]b`Yf`XYf`&`\$`&
:]`U`Yb`j`cb`7\\]Y5h]YbXY`?cbhU`_h`Ui`ZbY`\\a`Yb`"8Ug`Y]bZUW`Y
9]b`fY]WYb`Y]b`Yg`6YgWk`YfXYb`_Ubb`b]W`h`bi`f`XYb`VYhfcZZYbYb
<Ui`g`U`hYb`gY`Vgh`\\Y`ZYbž`gcbXYfb`ZŌfXYfh`Ui`W`XUg`6Yk`i`gghgY]b
ZŌf`X]Y`6YXŌfZb]ggY`XYf`?cbgi`a`YbhYb`]b`gc`W`_f]h]gWYb`NY]hYb"

C`V`k`c`\\`XUg`K`UfhYb`Ui`Z`Y]bY`F`ŌW`_a`Y`Xi`b[`i`bX`Y]bY`a`Ò[`]W`Y
9bhgW`ĀX][i b[`a`Ō`gUa`gY]b`_Ubbž`V`Y]Vh`Yg`k`]W`h][`ž`XUg`Y][YbY

F YW h'Ui ZY]bY`ZU]fY`6Y\UbX`i b[`]b`5bgdfi W`ni `bY\`a Yb" `⊖
Y]bYf`X][`]hU`Yb`K Y`hž`]b`XYf`?ca Zcfhi bX`Ni j Yf`Àgg][`_Y]h`Yfk UfhYh
k YfXYbž`fØW_Yb`gc`W`Y`9fY][b]ggY`X]Y`Bchk YbX][`_Y]h`Y]bYf
YZZ`_hj Yb`i bX`j YfUbhk cfhi b[gj c`Yb`8]Ybgh`Y]ghi b[`]b`XYb` : c`_i g
XYf` ; YgY``gW`UZh"

K]W h][`_Y]h`XYf`J YfVfUi W`YffYW`hY

⊖`NY]hYbž`]b`XYbYb`[fi bX`Y[YbXY`8]Ybgh`Y]ghi b[Yb`k]Y`X]Y
Ghfca j Yfgcf[i b[`i bg]W`Yf`k YfXYbž`]gh`XYf`9]bgUhn`ZØf
J YfVfUi W`YffYW`hY`i bYf`Àgg`]W`"8]Y`i bZÀ\][`_Y]hž`[fi bX`Y[YbXY
6YXØfZb]ggY`ni `VYZf]YX][Ybž`ghY``h`Y]bY`Yfbgh`UZhY
<YfUi gZcfXYfi b[`XUfž`X]Y`b]W`h][bcf]Yfh`k YfXYb`_Ubb" `8U\Yf`]gh
X]Y`U_hi Y``Y`G]hi Uh]cb`b]W`h`bi f`Y]b`K YW_fi ZUb`X]Y
J Yfgcf[i b[gi bhYfbY\`a Ybž`gcbXYfb`Ui W`Ub`X]Y`J YfVfUi W`Yf
gY`Vghž`]fY`Gh]a a Y`ni `Yf\YVYb`i bX`ZØf`]fY`F YW`hY`Y]bni hfY`hYb"

8]Y`i fgUW`Yb`XYf`Ghfca Ui gZÀ``Y

8]Y`Ghfca Ui gZÀ``Yž`X]Y`]a `5i [i gh]b`XYf`nYbhfU`!gØX`]W`Yb`F Y []cb
7\]Yg`Ui ZhfUhybž`k i fXYb`Xi fW`j YfgW`]YXYbY` : U`hcfYb
j Yfi fgUW`h" `⊖gVYgcbXYfY`XUg`Yi hfYa Y`K YhhYfž`XUfi bhYf`ghUf`_Y
F Y[YbZÀ``Y`i bX`\c`Y`K]bX[YgW`k]bX][`_Y]hYbž`ZØ`fhYb`ni
Yf\YV`]W`Yb`GW`ÀXYb`Ub`XYf`⊖ZfUghfi `_hi f" `8]YgY
K YhhYfVYX]b[i b[Yb`ØVYf`UghY`hYb`X]Y`Y`Y`_hf]gW`Yb`GmghYa Y`i bX
ZØ`fhYb`]b`j]Y`Yb` ; YV]Y`hYb`ni `GW`ÀXYb`Ub`Ghfca `Y]hi b[Yb`i bX
l a gdUbbk Yf`_Yb"

8UfØVYf`\]bUi g`k i fXYb`Y]b][Y`XYf`DfcV`Ya Y`Xi fW`X]Y
i bni fY]W`YbXY`K Ufhi b[`i bX`XYb`U`hYb`Ni ghUbX`XYf`Y`Y`_hf]gW`Yb
⊖ZfUghfi `_hi f`]b`VYgh]a a hYb` ; Y[YbXYb`j YfgW`ÀfZh" `8]Y
Gi dYf]bhYbXYbW]U`XY`9`YW`hf]W]XUX`m`7ca Vi gh]V`Yg`fG97`È`U`h]b
XYf`J Yf[Ub[Yb`Y]h]a a Yf`k]YXYf`Ui Z`X]Y`Bchk YbX][`_Y]h`j cb
⊖j Ygh]h]cbYb`]b`X]Y`A cXYfb]g]Yfi b[`XYf`⊖ZfUghfi `_hi f`
\]b[Yk]YgYbž`i a `X]Y`K]XYfghUbXgZÀ\][`_Y]h[Y[Yb
9l hfYa k YhhYfYfY][b]ggY`ni `Yf\Ø`Yb" `⊖Zcfa Uh]cbYb`XUni `g]bX`Ui Z
XYf`K YVgY]hY`XYf`G97`j YfZØ[VUf"

: c`[Yb`ZØf`X]Y`VYhfc ZZYbYb`< Ui g\ U`hY

8]Y`?cbgYei YbnYb`XYf`Ghfca Ui gZÄ`Y`k UfYb`ZØf`j]Y`Y`<Ui g\U`hY
Yf\YV`]W`"BYVYb`XYb`c ZZYbg]W`h`]W`Yb`i bUbbY\`a` `]W`_Y]hYb
Xi fW`XYb`J Yf`i ghj cb`9`Y`_hf]n]hÄ`h`]hhYb` : Ua`]`Yb`i bhYf
?Ø\`dfcV`Ya Yb`a`]h`@YVYbga`]hhY`bž`K UggYf`_bUdd`Y]h`i bX`XYf
5i gk]f`_i b[Yb`Ui Z`<ca YcZZ]W`!5fVY]hYb`" `#`Y]b][Yb` : Ä`Ybž
VYgcbXYfg`]b`ÄbX`]W`Yb` ; YV]YhYbž`k Uf`XYf`Ni [Ub[`ni
[fi bX`Y[YbXYb`8]Ybgh`Y]ghi b[Yb`ghUf`_Y]b[YgW`fÄb`_h`

8]Y`Ya`ch]cbU`Yb`i bX`dgmW`c`c[]gW`Yb`5i gk]f`_i b[Yb`X]YgYf
I bhYfVfYW`i b[Yb`gc`hYb`YVYbZU`g`b]W`h`j YfbUW`Ägg][h`k YfXYb`"
8]Y`I`bg]W`Yf\Y]h`ØVYf`X]Y`8Ui Yf`XYf`Ghfca Ui gZÄ`Y`ZØ`fhY`ni
GhfYgg`i bX` : fi ghfUh]cb`VY]`XYb`VYhfc ZZYbYb`J YfVfUi W`Yfb`"@Ui h
6YfUhi b[Yb`a`]h`DgmW`c`c[Yb`_Ubb`Y]bY`d`Øm`]W`Y`I` bhYfVfYW`i b[
`YVYb`gk`]W`h][Yf`8]Ybgh`Y]ghi b[Yb`X]Y`Ya`ch]cbU`Y`GhUV`]hÄ`h`ghUf`_
VYY]bhfÄW`h][Yb`"

F YU`_h]cbYb`XYf`VYhfc ZZYbYb`I` bhYfbY`a` Yb

8]Y`FYU`_h]cbYb`XYf`VYhfc ZZYbYb`I` bhYfbY`a` Yb`Ui Z`XYb`J`cfZU`
k UfYb`i bhYfgW`]YX`]W`"K Ä`fYbX`9bY`ž`Y]bYg`XYf`[fØ`hYb
9bYf[]Yj Yfgcf[i b[gi bhYfbY`a` Yb`7`\]Ygž`U`_h]j`Ub`XYa` `J YfZU`fYb
ni f`Gi W`Y`bUW`9bhgW`ÄX][i b[Yb`VYhY]`][h`k Ufž`nY][hYb`UbXYfY
I bhYfbY`a` Ybž`XUfi bhYf`7; 9`i bX`7`\]`ei]bhUž`k Yb][Yf
9b[U[Ya`Ybh`VY]`XYf`@Øgi b[`XYf`DfcV`Ya`Y`"8]YgYg`J Yf\U`hYb`U`h
6YXYb`_Yb`_\]bg]W`h`]W`XYf`J YfU`bhk`cfhi b[`i bX`XYf
GYfj]W`ei U`]hÄ`h`[Yk YW`_hž`X]Y`X]Y`I` bhYfbY`a` Yb`]`fYb`?i bXYb
V]YhYb`"

Ni gÄ`h`]W` `U`h`X]Y`ØZYbh`]W`Y`8]g`_i`gg]cb`ØVYf`X]Y`Ghfca Ui gZÄ`Y`
ni `Y]bYa` : cfXYfi b[g`_UhU`c[`ZØf`Y]bY`j YfVYggYfhY`FY[i`]Yfi b[
i bX` , VYfk UW`i b[`XYf`9bYf[]Yj Yfgcf[Yf[YZØ`fh`"J]Y`Y
J YfVfUi W`Yf`ZcfXYfb`hfUb`gdUfYb`hYfYg`<UbXY`b`i bX`VYggYfY
?ca`a`i`b[_Uh]cb`gg`hfU`hY[]Yb`j`cb`XYb`I` bhYfbY`a` Yb`]b
?f]gYbg]hi`Uh]cbYb`"

F Y[i `Uhc f]gW\ Y `i bX `[YgYhn`]W\ Y

F U\ a YbVYX]b[i b[Yb

8Yf`JcfZU``\Uh`Ui W\ `: fU[Yb`ni `XYb`fY[i `Uhc f]gW\ Yb
F U\ a YbVYX]b[i b[Yb`j]b`7\`Y`Ui Z[Yk cfZYb``8]Y`[Y`hYbXYb
[YgYhn`]W\ Yb`6Ygh]a a i b[Yb`gY\Yb`j cfžXUgg
J Yfgcf[i b[gi bhYfbY\ a Yb`VY]`a Ugg]j Yb`Ghfca Ui gZÀ``Yb
9bhgW\ÀX][i b[gnU\`i b[Yb`Ub`VYhfcZZYbY`?i bXYb`Y]ghYb`a ØggYb"
5dY`Uh]j Ug`j cb`J YfVfUi W\ YfgW\ i hncf[Ub]gUh]cbYb`ZØ\ fYb`XUni ž
XUgg`X]Y`; YgYhn[YVi b[`a Ò[`]W\ Yfk Y]gY`]b`bU\Yf`Ni _i bZh
j YfgW\ÀfZh`k]fXž`i a `XYb`GW\ i hn`XYf`J YfVfUi W\ Yf`ni `j YfVYggYfb"

8Yf`G9FB57`\Uh`ni XYa `VYhcbhž`k]Y`k]W\ h][`Yg`]ghž`6YgW\k YfXYb
Y]bni fY]W\ Ybž`i a `Y]bY`ghÀf`YfY`FY[i `]Yfi b[`ni `ZcfXYfb`i bX
g]W\ Yfni ghY``Ybž`XUgg`X]Y`J Yfgcf[i b[gi bhYfbY\ a Yb`]b
J YfUbhk cfhi b[`[Ybca a Yb`k YfXYb``bZcfa Uh]cbYb`ni `XYb
U_hi Y``Yb`6Y`Ub[Yb`i bX`fYW\ h`]W\ Yb`; fi bX`U[Yb`Z]bXYb`G]Y`Ui Z
XYf`\hhdg.##k k k "gYfbUWW"

8YhU]`g

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