

⇒g`UbX`Yb hk]W_Y`h'g]WΛ`ni a`ghUV]`ghYb
6]hWΛ]b`A]b]b[`; Yf]WΛ hgV Uf_Y]hYb
f6 Yf]WΛ hŁ

GY]hXYa` \Uh'g]WΛ`]b`XYf`6]hWΛ]b!A]b]b[!@UbXgWΛ UZh'Y]b
Ybcfa Yf`K UbXY`j c``nc[Yb``J YfgWΛ]YXYbY`@AbXYf`g]bX`ni
bYi Yb`<ÅZYb`XYf`A]bYf`[Yk cfXYb``9]b`Yi fcdÅ]gWΛ Yg`@UbX
\Uh'g]WΛ`ni a`k Y`hk Y]h[f0» hYb`Dfc!`?cdZDfcXi nYbhYb`j cb
< Ug\!F UhYb`Yb hk]W_Y`h``5i Z[fi bX`XYg`V]``[Yb`Ghfca`g]gh
⇒g`UbX`Y]bYg`XYf`YfghYb`@AbXYf`ž`XUg`6]hWΛ]b!A]b]b[`]a
]bXi ghf]Y``Yb`A U» ghUV`Yf`YVh``@Ui h`XYa`6]hWΛ]b!A]b]b[!
: cfgWΛ Yf`XfUb`A Y``Yfi X`_Òb bhYb`Yg`Ui WΛ`X]Y
i bhYfbY\`a Yf]gWΛ Yb`9]b\`Y]a]gWΛ Yb`XYg`@UbXYg`gY]b
ni [YgWΛ f]YVYb`ni a`K UWΛ ghi a`XYf`6fUbWΛ Y``8]Y
]g`ÀbX]gWΛ Y`6]hWΛ]b!A]b]b[!⊕Xi ghf]Y`j YfVfUi WΛ h
gWΛ`Àhni b[gk Y]gY`ZUgh`%&\$`A K ž`k Ug`Y]bYa`5bhY]`j cb`%ž`i
Ub`XYf`k Y`hk Y]hYb`< Ug\!F UhY!DfcXi`_h]cb`Ybhgd f]WΛ h``⊕
5bVYhfUWΛ h`XYf`HUhgUWΛ Yž`XUgg`⇒g`UbX`bi f` +\$"\$\$\$
9]bk c\`bYf`\Uhž]gh`Yg`XYf`[f0» hY`< Ug\!F UhY!DfcXi nYbh
/ Ua d^Y``d/



GY]hXYa '\Uh'g]W\`]b`XYf'6]hWc]b!A]b]b[!@UbXgW\UZh'Y]b`Ybcfa`Yf
K`UbXY`j`c``nc[Yb"J`YfgW\]YXYbY`@AbXYf'g]bX`ni`bYi`Yb`<`AZYb`XYf
A]bYf'[Yk`cfXYb"9]b`Yi`fcdA]gW\Yg`@UbX`\Uh'g]W\`ni`a`k`Y`hk`Y]h
[fO»`hYb`Dfc!`?`cdZ`DfcXi`nYbhYb`j`cb`<`Ug\!F`UhYb`Yb`hk`]W`_Y`h"
5i`Z[fi`bX`XYg`V]`][Yb`Ghfca`g`]gh`≡`UbX`Y]bYg`XYf`YfghYb`@AbXYfž
XUg`6]hWc]b!A]b]b[`]a`]bXi`ghf]Y``Yb`A`U»`ghUV`Yf`YVh"

@Ui`h`XYa`'6]hWc]b!A]b]b[!: `cfgW\Yf`↘fUb`A`Y``Yfi`X`_`Obb`hYb`Yg
Ui`W\`X]Y`i`bhYfb`Y\`a`Yf]gW\Yb`9]b`\Y]a`]gW\Yb`XYg`@UbXYg`gY]b`
ni`[`YgW\`f]YVYb`ni`a`k`UW\`ghi`a`XYf`6`fUbW\Y"8]Y`]g`AbX]gW\Y
6]hWc]b!A]b]b[!`≡`Xi`ghf]Y`j`YfVfUi`W\`h`gW\`Ahni`b[`gk`Y]gY`ZUgh`%&`\$
A`K`ž`k`Ug`Y]bYa`'5`bhY]`j`cb`%ž`i`Ub`XYf`k`Y`hk`Y]hYb`<`Ug\!F`UhY!
DfcXi`_]cb`Yb`hgd]f]W\`h"≡`5`b`VYhfUW\`h`XYf`HUhgUW\`Yž`XUgg`≡`UbX
bi`f" `+`\$`\$\$\$`9]bk`c`\bYf`\Uhž]gh`Yg`XYf`[fO»`hY`<`Ug\!F`UhY!
DfcXi`nYbh`d`fc`?`cdZ"

K`Ug`a`UW\`h`≡`UbX`VYgcbXYfg3

9g`[]Vh`UbXYfY`@AbXYfž]b`XYbYb`?`fmdhc!A]bYf'[Øbgh][YfYb`Ghfca
Z]bXYb`_`ObbYb" `HUhgAW\`]W\`k`Uf`Ghfca`]b`≡`UbX`]b`XYf
J`Yf[Ub[Yb\Y]h`Yhk`Ug`hYi`fYf`U`g`Ub`UbXYfYb`bcfX]gW\Yb`C`fhYb
k`Y]B`cfX`bcf`k`Y[Yb`i`bX`B`cfX`gW\`k`YXYb"K`Ug`U`gc`a`UW\`h`≡`UbX
ni`Y]bYa`i`_`fUh]j`Yb`GhUbXcfh3

9]b`Yb`hgW\Y]XYbXYf`J`cfhY]ž`k`]Y`A`Y``Yfi`X`VYhc`bhYž`]gh`X]Y
HUhgUW\`Yž`XUgg`XUg`9`Y`_hf]n]h`AhggmghYa`XYf`Uf`_h]gW\Yb`B`Uh]cb
j`c``gh`AbX][`j`ca`F`Ygh`XYf`K`Y`h]gc`Yf]h]gh"8]Yg`gW\`Ø`hnh`X]Y
5`_hYi`fY`c`ZYbg]W\`h]W\`j`cf`Y]bYf`[`c`V`U`Yb`Ghfca`dfY]g]b`Z`Uh]cb"
8`Uf`Ø`VYf`\]bUi`g`[]Vh`Yg`_Y]bY`J`YfV]bXi`b[`g`Y]hi`b[`Yb`nk`]gW\Yb
≡`UbX`i`bX`?`cbh]bYb`hU`Yi`fcd`Už`k`Ug`j`Yf`\]bXYfhž`XUgg`≡`UbX`XYb
?`fUZhghc`Z`dfY]gYb`Ui`g[`YgY`hnh]ghž`XU`gY]b`[`YgUa`hYf`Ghfca`Ui`g
YfbYi`YfVUfYb`E`i`Y``Yb`ghUa`a`h"

A]bYf'g]bX`]b`XYf`F`Y[]cb`gY]h`ZUgh`nY`\`b`↘\`fYb`c`\`bY
bYbbYb`gk`Yf`hY`Dfc`V`Ya`Y`a`]h`XYb`5i`Zg]W\`hgVY`\`Ø`fXYb`h`Ah][`ž`k`Ug
g]Y`a`Ø[`]W\`Yfk`Y]gY`ni`f`ghUV]`ghYb`;`Yf]W\`hgV`Uf`_Y]h`Z`Ø`6]hWc]b!
A]b]b[`XYf`K`Y`h`a`UW\`h"

A Y`Yfi X'gU[hYž

9`GU`j UXcf`UUhj]Y`Y]W`h`X]Y`a Y]ghY`5i Za Yf_gUa _Y]h`b`XYf
6]hWc]b!7ca a i b]hm`Xi fW`gY]b`J i ` _Ub!A]b]b[!Dfc`Y`h`Ui Z`g]W`
[Ync[Ybž`UVYf`X]Y`g`ÀbXYf`VYhfY]VYb`gY]h`a Y`fYfYb`ž`fYb
gh)`gW`k Y][YbX`J i ` _Ub!A]b]b[`]b`j]Y`[fÒ» YfYa `i a ZUb["

Nk Y]hY`J YfhY]X][i b[g`]b]Y

g`UbXg`Ghfca j Yfgcf[i b[`k]fX`]b`XYb`Y`mhYb`ž`fYb`]a a Yf
_bUddYf" `5i W`X]Y`9bhk]W`i b[`bYi Yf`? fUZhk Yf_Y`gW`Y]bh`ni
ghU[b]YfYb` `ž`Zc`[YXYggYb`]gh`X]Y`Ghfca ni k Y]gi b[`ZØf`bYi Y
F YW`YbnYbhfYb`bU`Yni `i ba Ò[`]W`[Yk cfXYb"

8]Yg`_Ubb`Xi fW`X`Yb`6Ui `bYi Yf`? fUZhk Yf_Y`VY`cVYb`k YfXYb"
5VYf`Yg`[]Vh`bi f`gY`f`VY[fYbnhY`D`ÀbY`ZØf`Y]bY`gc`W`Y
9bhk]W`i b[" `g`UbX`k]fX`j cb`J i ` _UbYb`i bX`K UggYfZ`Yb`a]h
Ghfca `j Yfgcf[hi bX`]gh`XUa]h`XUg`ghfca fY]W`ghY`@UbX`XYf`K Y`h"
8U`Yf`k]fX`Yfk UfhYhž`XUgg`Ghfca `V`]`[`V`Y]Vhž`XU`K UggYf`fUZhi bX
; Ych`Yfa]Y`gY`f`b]YXf][Y` ; fYbn`cghYb`XYf`DfcXi _h]cb`UVYb"

9]bY`k Y]hYfY`J YfhY]X][i b[g`]b]Y`XYf`A]bYf`]b`XYa ` _Y]bYb
Yi fcd`À]gW`Yb`@UbX`[Y[Yb`ghY][YbXY`Ghfca dfY]gY`g]bX
`Ub[Zf]gh][Y`Ghfca !: YghdfY]gj Yfh`À[Y"

.."

8YhU]`g

6Ygi W`Yb`G]Y`i bg`Ui Z.`_fmdhc!bYk g"Uh