

ϑbcj Uh]j Y' < Ui g\ U`hg[YfÅhY' j cb`H7@
VY[Y]ghYfb`Ui Z`XYf' ≐ 5`&\$&(`]b`6Yf`]b

9bhXYW_Yb`G]Y`X]Y`VU\ bVfYWX YbXYb` ϑbcj Uh]cbYb`j cb`H7@
Ui Z`XYf' ≐ 5`&\$&(`9fZU\ fYb`G]Y`a Y\ f`ØVYf`XYb
dfY]g[Y_f`ØbhYb`BLH: F 5A 9!HJ`i bX`XYb`j]Y`gY]h][Yb` : fYY
6i]`h! ϑ`F YZf][YfUhc f`ž`X]Y`a cXYfbY`HYW bc`c[]Y`a]h
Yl nY`YbhYf` : i b_h]cbU`]hÅh] YfY]bYb" `9f`YVYb`G]Y`ž`k]Y`H7@
X]Y' < Ui g\ U`hg[YfÅhY`i bX`l bhYf\ U`hi b[gY`Y_hfc b]_
fYj c`i h]cb]Yfh`i bX`gY]bY`K UW ghi a gd`ÅbY`]b`9i fcdU
j cfU bhY]Vh" `@YgYb`G]Y`Y`hnh`a Y\ f`

H7@gY hnh`A U» ghÅVY`]b`XYf' < Ui g\ U`hg[YfÅhY!
i bX`l bhYf\ U`hi b[gY`Y_hfc b]_ VfUb WX Y`Ui Z
XYf' ≐ 5`&\$&(

8]Y` ϑhYfbUh]cbU` : i b_Ui gghY`i b[`f# 5Ł`&\$&(`]b`6Yf`]b`dfÅgYbh]Yfh
b]WX h`bi f`X]Y`bYi ghYb`hYWX bc`c[]gWX Yb`9ffi b[YbgWX UZhYbž
gcbXYfb` []Vh`Ui WX`Y]bYb`h]YZYb`9]bV`]W_]b`X]Y` ϑbcj Uh]cbg_fUZh
ZØ\ fYbXYf`l bhYfbY\ a Yb" `9]b`YfUi gfU[YbXYg`6Y]gd]Y`]gh`XUg
WX]bYg]gWX Y`l bhYfbY\ a Yb`H7@ž`XUg`g]WX`a]h`gY]bYb`bYi Ufh][Yb
DfcXi _hYb`]b`XYb` : c_i g`XYf`A YggY`XfÅb[h" `6YgcbXYfg
VYa Yf_Ybgk Yfh`g]bX`XYf` H7@: fYY`6i]`h! ϑ`F YZf][YfUhc f`gck]Y
XYf` H7@5` \$\$`GYf]Yg`BLH: F 5A 9`HJ` ž`X]Y`VY]XY`a]h` : c`X`5k UfXg
Ui g[YnY]WX bYh`k i fXYb`i bX`gca]h`X]Y`E i U`]hÅhgghUbXUfXg`]b`XYf
6fUbWX Y`YfbYi h`\YVYb"

9]bY`bYi Y`8]a Ybg]cb`XYf' < Ui g\ U`hg[YfÅhY. `8Yf`H7@: fYY
6i]`h! ϑ`F YZf][YfUhc f`

8Yf` H7@: fYY`6i]`h! ϑ`F YZf][YfUhc f` \YVh`g]WX`Xi fWX`gY]bY
Xi fWX`XUWX`hY`?ca V]bUh]cb`Ui g`XYg][bhYWX b]gWX Yb` ϑbcj Uh]cbYb

i bX`Zi b_]cbU`Ya`GhUi fUi a` \Yfj`cf" `8i fW`XYb`j`YfghYW_hYb
K UggYfgdYbXYf`i bX`XUg`bYi Ufh][Y`J`U_i`i`a`!`gc`]Yfa`UhYf]U`ž`XUg
Y]bY`VYY]bXfi`W_YbXY`K`Àfa`Y`Y]ghi b[`[`UfUbh]Yfhž`k`]fX`Yf`gck`c`
XYb`6YXØfZb]ggYb`XYf`?`cbgi`a`YbhYb`U`g`Ui`W`XYb`5bZcfXYfi`b[`Yb
Ub`a`cXYfbY`?`ØW`Yb`[`YfYW`h" `?`UfYb`@]ž`X]Y`8`]fY`_hcf]b`ZØf
DfcXi`_hcdYfUh]cbYb`VY]`H7@9l`6;`ž`YVh`Yfj`cfž`k`]Y`k`]W`h][
X]YgY`9fbYi`Yfi`b[`]gh`J`YfvfUi`W`Yf`a`]h`_`Y]bYfYb`?`ØW`Yb
_ØbbYb`bi`b`a`Y`f`GhUi`fUi`a`[`Yb]Y»Ybž`c`bY`XUVY]`Ub`GhY`Z`ÀW`Y
ni`j`Yf`]YfYb"

H7@g`:`YfbgY`Yf`U`g`<`][` \`][` \h.`8Yf`BLH: F5A`9`HJ

8Yf`H7@5`\$\$`GYf]Yg`BLH: F5A`9`HJ`V]YhYh`Y]b`Ui`ZfY[`YbXYg
: YfbgY`Yf`YVb]gž`XUg`ØVYf`X]Y`ØV`]W`Yb`5gdY`_hY`XYf
l`bhYf`U`hi`b[`gY`Y`_hfc]b`_` \]bUi`g[`Y`h`GY]b`gW`_Ub`_Ygž
a`]b]a`U`]gh]gW`Yg`8Yg][`b`i`bX`X]Y`A`Ø[`]W`_Y]hž`XYb`GhUbXZ`»
ZYl`]VY`ni`d`cg]h]cb]YfYbž`a`UW`Yb`]\b`ni`Y]bYa`]XYU`Yb
K`c`b`UW`W`ggc]fY" `8]Y`J`Yfk`YbXi`b[`XYf`B`Ubc`!`A`_]fc`_]ghU`!
HYW`bc`c[`]Y`[`]Vh`XYa`6`]XgW`]fa`Y`Y]bY`a`UhhY`Ghfi`_hi`fž`X]Y`]\b
\Ufa`cb]gW`]b`X]Y`F`Ui`a`[`YghU`hi`b[`Y]bZØ[`h" `6YgcbXYfg
VYa`Yf`_Ybgk`Yfh]gh`X]Y`Ni`gUa`a`YbUfVY]h`a`]h`6Ub[`/`C`i`ZgYbž`X]Y
ZØf`X]Y`YfUi`gfU[`YbXY`5i`X]cei`U`h`À`hgcf[`hi`bX`gca`]h`Y]b
ZUgn]b]YfYbXYg`<`Y]a`_]bcYf`YVb]g`[`UfUbh]Yfh"

H7@.`K`UW`ghi`a`i`bX`b`bcj`Uh]cb

;`Y[`fØbXYh]a`j` \f`%-`,`%\`Uh]g]W`H7@ni`Y]bYa`[`c`VU`
U[`]YfYbXYb`5bV]YhYf`j`cb`l`bhYf`U`hi`b[`gY`Y`_hfc]b`_`i`bX
<`Ui`g`U`hg[`Yf`À`hYb`Yb`hk`]W`_Y`h" `GhY`ZUb`GhY]hž`7A`C`j`cb`H7@9l`6;`ž
Yf`À`i`hYfh]a`b`hYfj`]Yk`ž`XUgg`XYf`Yi`fcd`À]gW`Y`A`Uf`_h`ZØf`XUg
l`bhYfbY`a`Yb`j`cb`k`YgYbh]W`Yf`6YXYi`hi`b[`]gh`K`]f`k`UW`gYb
\Yf`fY[`Y`a`À»][`i`a`ØVYf`(\$`i`i]b`Y]bYa`A`Uf`_hž`XYf`UbXYfgk`c
ghU[`b]Yfh" `8]Yg`VYgh`Àh][`hi`bgYfY`ghfUhY[`]gW`Yb`9bhgW`Y]Xi`b[`Yb
i`bX`i`bgYfY`b`bcj`Uh]cbg`_fUZh"

GhfUhY[`]gW`Y`A`Uf`_YbV]`Xi`b[`X`i`fW`gdc`fh`]W`Y
DUf`hb`Yf`gW`UZhYb

H7@j YfZc`[h`Y]bY`YI dUbg]j Y`K UWkghi a gghfUHY[]Y`]b`9i fcdUž`X]Y
b]W`h`bi f`Ui ZhYW`bc`c[]gW`Y`ϕbcj Uh]cbYb`UVn]Y`hž`gcbXYfb`Ui W`
Xi fW`DUf`hbYfgW`UZhYb`a]h`Yi fcdA]gW`Yb`i i » VU`h`YUa g
i bhYfghØh`h`k]fX" : i » VU`h`X]Y`[fØ» h`Y`F`Y]W`k`Y]h`Y`i bX`gd]Y[Y`h
i bgYfY`A`Uf`_Ybj]g]cb`k]XYf`ž`Yf`_`Àfh`GhfY]h`k`Y]h`Yf"8]YgY
GhfUHY[]Y`i bhYfghfY]W`h`H7@g`5a`V]h]cbž`g]W`gck`c`\\`]b`XYb`<`YfnYb
XYf`J`YfVfUi W`Yf`U`g`Ui W`Ui Z`XYa`A`Uf`_h`Ub[Zf]gh][`ni
YhUV`]YfYb"

8]Y`6YXYi hi b[`XYf`5i gnY]W`bi b[Yb`ZØf`H7@g`F`i`Z

8]Y`Yf`U`h`YbYb` ; c`X`5k`UfXg]b`XYb`?`UhY[cf]Yb`?ØW`Yb[Yf`Àh`Y
i bX` : YfbgY`Yf`g]bX`a`Y`f`U`g`bi f`5bYf`_Ybbi b[Yb`/g]Y`g]bX`Y]b
NY]W`Yb`ZØf`X]Y`YfZc`[fY]W`Y`I`a`gYmi b[`j`cb`H7@g
ϕbcj Uh]cbggghfUHY[]Y" `@Ui`h`GhfY]h`VYXYi`h`Yb`X]YgY
5i gnY]W`bi b[Yb`Y]bYb`YbhgW`Y]XYbXYb`GW`f]hh`ni`f
A`Uf`_Ybgh`Àf`_i`b[.`G]Y`g]bX`Y]b`ghUf`_Yg`G][bU`ž`XUgg`k`]f`Ui`Z`XYa
f]W`h][Yb`K`Y[`g]bX`i`bX`i`bgYfY`DfcXi`_h`Y`gck`c`\\`]b`XYf`
I`bhYf`U`hi`b[gY`Y`_hfcb]`_`U`g`Ui`W`]b`XYf`<`Ui`g`U`hg[Yf`Àh`YfVfUbW`Y
_cbh]bi]Yf`]W`j`YfVYggYfb"

9]b`6`]W`_`]b`X]Y`Ni`_i`b`Zh

A]h`XYb`bYi`YghYg`DfcXi`_h`Yb`i`bX`Y]bYf`_`UfYb`J`]g]cb`ZØf`Y]bY
bUW`U`h][Y`Ni`_i`b`Zh]gh`H7@`Ui`Z`Y]bYa`j`]Y`j`YfgdfYW`YbXYb`?`i`fg"
8]Y`≐`5`&\$&(`\`Uh`YfbYi`h`[YnY][hž`XUgg`H7@`b]W`h`bi`f`Y]b
ϕbcj`Uhc`f`]b`XYf`HYW`b]`_`]ghž`gcbXYfb`Ui`W`X]Y`6YXØfZb]ggY`XYf`
a`cXYfbYb`J`YfVfUi`W`Yf`j`YfghY`h`i`bX`YfZØ`h"8]Y`?`ca`V]bUh]cb`Ui`g
: i`b`_h]cbU`]h`Àhž`Y`gh`Y`h]`_i`bX`ga`UfhYf`HYW`bc`c[]Yž`X]Y`]b`]\`fYb
DfcXi`_h`Yb`ni`a`5i`gXfi`W`_`_ca`a`hž`k`]fX`XUg`I`bhYfbY`a`Yb`Ui`W`
k`Y]hYf`]\b`]b`XYf`[`cVU`Yb`HYW`bc`c[]Y`UbXgW`UZh`\`Yfj`c`f`YVYb"

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