

K Å\ fYbX': HL 'ni '6]bUbW'ZÅ`hž'Y]'Yb
? fmdhc!9]bnY`Ub`Y[Yf'ni 'XYb'5i g[Åb[Yb

æa]hhYb`Y]bYg`Yg_U`]YfYbXYb`?f]Y[Yg'a]h'XYa '6]bUbW!
; f0bXYf'7\Ub[dYb['N\Ucž'XYa 'WUf]ga Uh]gWYb': HL!79C
GUa '6Ub_a Ub!: f]YX'XYa Ybh]YfhY'; Yf0W'hY'XUgg'gY]bY
? fmdhc!60fgY`_bUdd`Ub`@]ei]X]hÅ'h'k Uf''5a `bÅW ghYb`HU[
ghcddhY': HL'X]Y'5V\YVi b[Yb''K c'\UVYb'k]f'XUg'gWcb
Y]ba U`[YgY\Yb3'8]Y'gWcW_]YfYbXY', VYfbU\ a Y'j cb': HL
Xi fW'6]bUbW']gh'b]W'h`Ub[Y`bUW'XYb`æ d`cg]cbYb`XYf
UbXYfYb`nYbhfU`]g]YfhYb`? fmdhc d`UhhZcfa Yb`7Y`g]i g'i bX
JcmU[Yf`YfZc`[hž'X]Y`A]hhY`XYg`J\ fYg`ghUhhZUbXYb''K Å\ fYbX
X]YgY`Yhnh`VUb`fchhYb`i bhYfbY\ a Yb`_Y]bY`fY]bYb`60fgYb
k UfYbž`\fY`6Ybi hnyf'k UfhYb`bcW'Ui Z'X]Y`F0W_nU\`i b[i bX
Yhnh'g]bX`?'Y]bUb`Y[Yf'8i a d]b['XYf`bUh]j Yb': HH!Hc_Yb`XYf
60fgY`ni`ghUf`_fYXi n]YfhYb`DfY]gYb'': HH'k Uf`< UbXY`Z0f
fi bX`&&`'A cbhU[/ Ua d^Y``]d/

⊖a]hhYb`Y]bYg`Yg_U`]YfYbXYb`?f]Y[Yg`a]h`XYa `6]bUbW!; fØbXYf
7\Ub[dYb[`N\Ucž`XYa `WUf]ga Uh]gWXYb` : HL!79C`GUa `6Ub_a Ub!
: f]YX`XYa Ybh]YfhY` ; YfØW hY`XUgg`gY]bY`?fmdhc!6ÖfgY`_bUdd
Ub`@]ei]X]hÅh`k Uf"

5a `bÅW ghYb`HU[`ghcddhY` : HL`X]Y`5V\YVi b[Yb"K c`\UVYb`k]f
XUg`gWcb`Y]ba U`[YgY\Yb3

8]Y`gWcW_]YfYbXY` , VYfbU\`a Y`j cb` : HL`Xi fW`6]bUbW`]gh`b]W`h
`Ub[Y`bUW`XYb`⊖ d`cg]cbYb`XYf`UbXYfYb`nYbhfU`]g]YfhYb
?fmdhc d`UhhZcfa Yb`7Y`g]i`g`i bX`J cmU[Yf`YfZc`[hž`X]Y`A]hhY`XYg
⊗\fYg`ghUhhZUbXYb"

K Å\fybX`X]YgY`Yhnh`VUb`_fchhYb`i b`hYfbY\`a Yb`_Y]bY`fY]bYb
6ÖfgYb`k UfYbž`\fy`6Ybi hnyf`k UfhYb`bcW`Ui Z`X]Y
F ØW_nU\`i b[i bX`Yhnh]g]bX`?`Y]bUb`Y[Yf`8i a d]b[`XYf
bUh]j Yb` : HH!Hc`_Yb`XYf`6ÖfgY`ni `ghUf`_fYXi n]YfhYb`DfY]gYb"

: HH`k Uf`< UbXY`ZØf`fi bX`&&`~ `A cbhU[`BUW`h"Ni a `NY]hdi b`_h`XYf
J YfØZYb`h]W`i b[`k Uf`XYf`Hc`_Yb`i a `a Y\`f`U`g, \$`i `Ui Z`fi bX`(`~
UV[Yfi hgW`h"

K Ybb`XYf`6]bUbW!`?Ui Z`ni ghUbXY`_ca a hž`gWXY]bYb`X]Y` : HL!
9]b`Y[Yf`k]YXYf`[Ygi bX`ni `k YfXYbž`UVYf`X]Y`Yb][Ybž`X]Y`]b`XYb
: HH!Hc`_Yb`]bj Ygh]Yfh`\UVYbž`gWXY]bYb`hfc`hnXYa `X]Y`HUgWXY`ni
VY\U`hYb ž`gU[hY`A Uhh`Yk` :]YVUW`ž`5bU`mgh`VY]`6`cW`k cf`_g
F YgYUfW`"

: HH`k i fXY`ja `Gca a Yf`ni `Y]bYa `VY`]YVhYb`?Ui Zž`U`g` : HL`ghUf`_
k]Y`Y\`i bX`Y`YfgW]Yb" : HH!⊖\UVYf`\UVYb`Ni [Ub[`ni`
fYXi n]YfhY`< UbXY`g[YVØ\ fYb`i bX` : HL`k ØfXY`Hc`_Yb
j YfVfYbbYbž`k Ybb`X]Y`Bi hni b[`XYf`6ÖfgY`ni b]a a hž`k cXi fW` : HH
YZZY`_hj`k Yfhj`c`Yf`k]fXž`gc`X]Y`⊗YY"

5VYf` : HH`\Uh`Y]bY`VY[fYb`nhY`@]ei]X]hÅh`i bX`U`g`7c]b8Yg`_`

Ui Z[YXYW_h] Yf[Ub[YbY`K cWXY`k i fXY`j Yfk YbXYhzi a `X]Y
dchYbn]Y``]bgc`j YbhY`: HL!GWk YghYfcf[Ub]gUh]cb`5`Ua YXU
FYgYUfW`ni`ghØhnYb``:]YVUW`VYa Yf_hYž`XUgg`6]bUbW!79C`N\Uc
YVYbZU`g`_Y]bY`6YfY]hgW UZh`g[bU`g]Yfh`\Uhž`XUg`K YfhYgmghYa
j cb`: HH`Ui ZFYW`hni Yf\U`hYb"

8]Y`[fØ»YfY`Gcf[Y`]ghž`k Ybb`XYf`8YU`b]W`h`ni ghUbXY`_ca a h
i bX`6Ybi hnYf`a]h`JYfa Ø[Ybgk YfhYb`]b`: HL`À\b`]W`k]Y`7Y`g]i g
Y]b`dUUf`7Ybh`Ui ZXYb`8c``Uf`VY`_ca a Yb ž`gU[hY`:]YVUW"

5V`8]YbghU[bUW`a]hhU[`gW`]Yb`g]W`X]Y`A Uf`hdUb]_`Ui ZUbXYfY
?fmdhc!6ØfgYb`Ui g[YVfY]hYh`ni` \UVYb`? fU`_Y`i bX`A ØbnVUg]g
6Y]XY`a Y`XYb`8]Ybghi bhYfVfYW`i b[Yb``8]Y`<UbXY`gZ`b_h]cbU`]hÅh
Ui Z: HL`]gh`XYfnY]h`bcfa U`žUVYf`5i gnU`\`i b[gUbfÅ[Y`k YfXYb
b]W`h`VYUfVY]hYh`f`b`c`W`k cf`_g`\Uh`U`Y`XfY]`D`Uhž`c`fa Yb`i a`Y]bYb
?ca a YbhUf`[YVYhYb`L"

5VYf`gY`Vgh`X]Y`Gc`UbU!6`c`W`W`U]bž`]b`X]Y`6Ub`_a Ub!: f]YX`ghUf`_
]bj Ygh]Yfh`]ghž`\Uh`6Yf]W`hYb`ni Zc`[Y`GW`k]Yf][`_Y]hYbž
HfUbgU_h]cbYb`ni`j YfUfVY]hYb"

9g`]ghj YfZfØ`h`ni`gU[Ybž`UVYf`X]Yg`_ØbbhY`Y]bY`j YfgdÅhYhY
: cfhgYhni b[`XYf`Gc`j Ybn`_f]gY`gY]bž`X]Y`Xi fW`X`Yb
Ni gUa a YbVfi W`j cb`HYffU`Ui g[Y`Øgh`k i fXY``<cZYbh`]W`]gh
5`Ua YXU`bcW`gc`j Ybh`K Ybb`X]Yg`b]W`h`XYf`: U``]ghž`_Ubb`g]W`X]Y
5bghYW`i b[`a Ø[`]W`Yfk Y]gY`k]YXYf`Ui gVfY]hYb ž`gU[hY`: fY[`X]
Df]gWc`ž`DUfhbYf`VY]`8]ghf]Vi hYX`7Ud]hU`DUfhbYfgž`]b`Y]bYf
HY`Y[fUa a bUW`f]W`h"

Gc`UbU`\Uh`XYfnY]h`BYhmk Yf`_dfcV`Ya Yž`X]Y`XUni`ZØ`fYbž
XUgg`HfUbgU_h]cbYb`ZY`\`gW`U[Yb``9]b][Y`k YfXYb`bcW
j YfUfVY]hYh``J Yfgi W`Yb`G]Y`Yg`U`gc`YfbYi hž`k Ybb`∇fY
HfUbgU_h]cb`ZY`\`gW`À[h"

 Gc`YbX`fk]f`ghY``Yb`Y]b`L`f4 gc`YbXdfc`hcWc`L`,"
Bcj Ya VYf`&\$&&

5`g: HH`bUW\`N\Ucg`Hk`YYhž`b`XYa`6]bUbW`Ub_0bX][`hYž`XUgg
6]bUbW`U`Y`gY]bY`Hc`_Yb`j`Yf`_Ui`ZYb`k`0fXYž`ni`gUa`a`YbVfUWž
VYgW`i`X][`hY`F`mUb`GU`Ua`Yž`XYf`7c!79C`j`cb`:`HL`8][`]hU`A`Uf`_Yhgž
XYb`?`fmdhc!H]hUbž`k`Y]`Yf`Yg`j`Yfg`À`a`h`UhhYž`fY[`i`À`fY`:`HL!
6Ybi`hnYf`ni`gW`0hnYb"

5`hYf`ON\UcQ]gh`Vi`W`gh`V`]W`XUg`GW`]a`a`ghYž`Ya`UbX`X]fY`_h
ni`a`?`Ui`Z`Ub[`YVchYb`C`j`Yf!`h`Y!`W`i`bhYfQi`a`ni`j`Yfa`Y]XYbž`XUgg
Y]b`9]bnY`\`UbXY`j`Yf`Y`hnh`k`]fXž`i`bX`Yf`Yb`hgW`]YX`g]W`ghUhhXYggYbž
GW`a`YfnYb`ni`j`Yfi`fgUW`Yb`ž`GU`Ua`Y`[`Y`hk`]hhY`fhk`Ug`g]W`Ui`Z
XUg`5b[`YVch`j`cb`7Ufc`]bY`9`]gcbž`79C`j`cb`5`Ua`YXUž`VYn]Y`\`hž`X]Y
[`YgUa`hY`:`]bUbnhf`UbgU`_h]cbgghY`i`Yf`j`cb`6]bUbW`Z0f`&(`~`ni
_Ui`ZYb"

:`HL!;`f0bXYf`6Ub`_a`Ub!:`f]YX`\`Uh`XUg`Ui`W`[`Y`nc`[`YbY`?`f]h]_
0VYf`Y]bYb`A`Ub[`Y`Ub`_`UfYf`?`ca`a`i`b]_Uh]cb`0VYf`X]Y`Ni`_i`bZh
j`cb`:`HHž`U`g`XYf`DfY]g`\`Yi`hY`B`UW`a`]hhU[`]b`X]Y`<`0\`Y`gW`bY`hY`
i`bX`XYf`9]bnY`\`UbXY`g]W`gY`Vgh`0VYf`UggYb`a`i`gghY"

8]Y`7:`H7`ž`Y]bY`Ua`Yf]_Ub]gW`Y`5i`Zg]W`hgVY`\`0fXYž`X]Y`i`bhYf
UbXYfYa`XUa`]h`VYUi`ZhFU[`h`]ghž`?`Y]bUb`Y[`Yf`j`cf`[`fc»`Yb
J`c`Uh]`]h`hggW`k`Ub`_i`b[`Yb`ni`gW`0hnYbž`0VYfk`UW`h`X]Y
,`VYfbU`a`Y`j`cb`:`HL`Xi`fW`6]bUbW`ž`Y]b`GdfYW`Yf`[`Y`gU[`h
F`Yi`hYfg"

""

H\Y`dcgh`5g: `HL`:`U`g`hc`6]bUbW`ž`F`YhU]`7`fmdhc`ϕ`j`Yghc`fg`F`i`g\
Zcf`h`Y`9i`]hg`]gh`_Y]bY`Z]bUbni`Y`Y`6YfUhi`b[`"

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