

F]dd`Y`GhUfh`XYg`@]ei]X]hÅhg! < i Vg`hfc hn
G97!?!`U[Y`k Y[Yb`L F D` `B Yk g

⊖a]hhYb`Y]bYg`Ui ZYbXYb`F YW hggfY]hg`a]h`XYf`I G!
Ua Yf]_Ub]gWYb`GYW f]h]Yg`UbX`9I WUb[Y`7ca a]gg]cb
fG97Ł`ØVYf`L F Dž`F]dd`Y`Vf]b[h`Y]b`bYi Yg`DfcXi _h`Ui ZXYb
A Uf_hž`@]ei]X]hm`< i Vž`XUg`XUfUi ZUVn]Y`hž` Y]b`C bY!Ghcd!
G\cd`ZØf`I bhYfbY\`a Yb`ni`gY]bž`i a`U`Y`hc`_Yb]g]YfhYb
J Yfa Ò[Yb]gk YfhY`ni`VYn]Y\`Yb`"8 Ug`DfcXi _h` Yfa Ò[`]W h`Yg
?i bXYbž`bU\`hcg`j cb`Y]bYf`J]Y`nU\`j cb`[`cVU`Yb`C fhYb`Ui g
Ui Z`? fmdhc!5ggYhg`ni ni [fY]ZYbž`XUfi bhYf`A Uf`_Yh`A U`_Yfž
6ØfgYbž`C H7!8Yg_g`i bX`]b`Ni`_i bZh`XYnYbhfU`Y`C fhY`ž
Yf`_Àfh`XUg`I bhYfbY\`a Yb`"F]dd`Y`@]ei]X]hm`< i V`Yfa Ò[`]W h
?i bXYb`XYb`/ Ua d`/ , &&&/bU\`hcgYb`Ni [f]Z`Ui Z`? fmdhc!
5ggYhg`j cb`Y]bYf`J]Y`nU\`[`cVU`Yf`C fhY`/ Ua d`/ , &&\$`/F]dd`Y
[UV`Ua`8]YbghU[`VY`_Ubbhž`XUgg`Yg`Y]b`bYi Yg`DfcXi _h
bUa Ybg` F]dd`Y`@]ei]X]hÅhgXfY\`gWY]VY`"8]Y`5b`_ØbX][i b[
Yf`_Àfh`F]dd`Y`/ Ua d`^Y`d`/

⇒ba]hhYb`Y]bYg`Ui ZYbXYb`F YW hgghfY]hg`a]h`XYf`I G!
Ua Yf]_Ub]gWYb`GYW`f]h]Yg`UbX`9I WU Ub[Y`7ca`a]gg]cb
fG97ŁØVYf`LFDž`F]dd`Y`Vf]b[h`Y]b`bYi Yg`DfcXi`_h`Ui Z`XYb
A Uf_hž`@]ei]X]hm`<i Vž`XUg`XUfUi Z`UVn]Y`hž` Y]b`C bY!Ghcd!
G\cd`ZØf`I bhYfbY\`a Yb`ni`gY]bž`i a`U`Y`hc`_Yb]g]YfhYb
J Yfa`Ò[Ybgk YfhY`ni`VYn]Y\`Yb`"8 Ug`DfcXi`_h` Yfa`Ò[`]W`h
Yg`?i bXYbž`bU\`h`cg`j cb`Y]bYf`J]Y`nU\`j cb`[`cVU`Yb`C fhYb
Ui g`Ui Z`? fmdhc!5ggYhg`ni ni [fY]ZYbž`XUfi bhYf`A Uf`_Yh
A U`_Yfž`6ØfgYbž`CH7!8Yg_g`i bX`]b`Ni`_i bZh`XYnYbhfU`Y
C fhY`ž`Yf`_`ÀfhY`XUg`I bhYfbY\`a Yb"

F]dd`Y`@]ei]X]hm`<i V`Yfa`Ò[`]W`h`?i bXYb`XYb
bU\`h`cgYb`Ni [f]ZZ`Ui Z`? fmdhc!5ggYhg`j cb
Y]bYf`J]Y`nU\`j cb`[`cVU`Yf`C fhY

F]dd`Y`[UV`Ua`8]YbghU[`VY`_Ubbž`XUgg`Yg`Y]b`bYi Yg`DfcXi`_h
bUa Ybg` F]dd`Y`@]ei]X]h`ÀhgXfY\`gW`Y]VY" `8]Y`5b`_ØbX][i b[
Yf`_`Àfh

F]dd`Y`@]ei]X]hm`<i V`k]fX`?i bXYb`XYb`bU\`h`cgYb`Ni [f]ZZ
Ui Z`? fmdhc!5ggYhg`j cb`Y]bYf`J]Y`nU\`j cb`[`cVU`Yb`C fhYb
Ui g`Yfa`Ò[`]W`Ybž`XUfi bhYf`A Uf`_Yh`A U`_Yfž`6ØfgYbž`CH7!
8Yg_g`i bX`]b`Ni`_i bZh`XYnYbhfU`Y`C fhY"

5g\YYg\`6]f`Už`; YgW`ÀZhgzØ\`fYf]b`VY]`F]dd`Yž`Yf`_`ÀfhYž`XUgg`XUg
bYi Y`DfcXi`_h`XUfUi Z`UVn]Y`hž` Y]b`C bY!Ghcd!G\cd`ZØf
I bhYfbY\`a Yb`ni`gY]bž`i a`U`Y`hc`_Yb]g]YfhYb`J Yfa`Ò[Ybgk YfhY`ni
VYn]Y\`Yb`"

F]dd`Y`@]ei]X]hm`<i V`k]fX`j cfUi gg]W`h]W`&\$&&`Ui Z`XYb`A Uf`_h
_ca`a Yb" `8 Ug`DfcXi`_h`k]fX`X]Y`gW`X`ØggY`ZYfh][Y`⇒hY [fUh]cb`i bX
]bhY``][YbhY`5i ZhfU[gk Y]hYf`Y]hi b[`i bhYfghØhnYbž`i a`X][]hU`Y

5ggYhg'ni 'cdh]a]YfhYb'DfY]gYb'ni 'VYn]Y\Yb'i bX'?i bXYb'X]Y
A Ò['jW_X]h'ni '[YVYbž? fmdhc!5ggYhg'Y]bZUW'ni '_Ui ZYbž'ni
j Yf_Ui ZYb'i bX'ni '\U'hYb" 'F]dd'Y'Yf_`Àfh"

Ni bÀWgh'k]fX'X]Y'D`UhhZcfa ' i bhYfghØhnYb '6H7ž'9H< ž'@H7ž'9H7
ž'67< 'i bX' L F D 'f]YfZØ[VUf_Y]h'k]fX'Y'bUW'F Y[]cb'j Uf]]YfYbŁž
a]h'D`ÀbYbž'Ui Z'a Y\`f'hc_Yb]g]YfhY'J Yfa Ò[Ybgk YfhY'ni
YI dUbX]YfYb žZØ[hY'XUg'I bhYfbY\`a Yb'\]bni 'i bX'ghY``hY'ZYghž
XUgg']b'Ni _i bZh 'F]dd'Y'd`Ubhž'ni gÀh'W]Y': i b_h]cbYb'k]Y'X]Y
I bhYfghØhni b['ZØf'5VghYW! 'i bX'9fhfU[g[YbYf]Yfi b[gZ b_h]cbYb
\]bni ni ZØ[Yb"

...

⊕`XYf'5b_ØbX][i b['k]fX'XUfUi Z\]b[Yk]YgYbž'XUgg'F]dd'Y
j Yfk YbXYh'@ei]X]hm'<i V']bhYfb'gY]hZUgh'nk Y]`j\`fYb' ZØf'XUg
]bhYfbY'@ei]X]hÀhga UbU[Ya Ybh'U'g'HY]'gY]bYg'C b!8Ya UbX
@ei]X]hm'fC 8 @!DfcXi _hgž'XUg'A]`]cbYb'j cb'HfUbgU_h]cbYb'ja
K Yfh'j cb'A]`]UfXYb'8c``Uf'UbhfY]Vh "

F]dd'Y'g'YfghYf'DUfhbYfž'XYf'XUg'DfcXi _h'Y]bgYhnhž']gh'XUg'7fmdhc!
hc!7Ug\!BYh'k Yf_'7c]ba Y" Ni bÀWgh'k]fX'7c]ba Y'X]Y'ni [fi bXY
'Y[YbXY'HYWbc`c[]Yd`UhhZcfa 'j cb'@ei]X]hm'<i V'bi hnYbž'a]h
D`ÀbYbž'ni gÀh'W]Y': i b_h]cbYb'ZFY]ni gWU'hYbž'gcVU'X'g]Y
j YfZØ[VUf'g]bX" 'F]dd'Y'Ui gZØ\`f'W"

8]YgY'5b_ØbX][i b['XYf'DfcXi _hY]bZØ\fi b['_Ua 'U'g'F]dd'Y'gYhnh
gY]bYb'F YW'hgghfY]h'a]h'XYf'I G!Ua Yf_]Ub]gWYb'6ØfgYbUi Zg]W'h
G97'Zcfh"8]Y'K YfhdUd]YfUi Zg]W'hgVY\`ØfXY'j Yf_'U[h'F]dd'Y'@UVgž
gY]bYb'79C'6fUX'; Uf`]b[\ci gY'i bX'A]hVY[fØbXYf'7\`f]gh]Ub
@UfgYb'ZØf'X]Y'Ub[YV`]WY'6YgWUZI b['j cb'a Y\`f'U'g'%ž
A]`]UfXYb'I G!8c``Uf'Xi fW' L F D 'X]Y'X]Y'?ca a]gg]cb'U'g'b]W'h
fY[]ghf]YfhYg'K YfhdUd]YfUb[YVch'VYhfUW'hYh" 'F]dd'Y'ni bX'gY]bY
: Ø\fi b[g_fÀZhY'_Àa dZYb'[Y[Yb'X]Y'?`U[Y'i bX'VYghY\`Yb'XUfUi Ž
XUgg' L F D ']gh'_Y]bY'G]WYf\`Y]h"

K Ug'XYb_gh'Xi 'ØVYf'F]dd'Y'9]bZØ\fi b['j cb'@ei]X]hm'<i V
]ba]hhYb'Y]bYg'Ui ZYbXYb'F YW'hgghfY]hg'a]h'XYf'G973

@UggYb`G]Y`Yg`i`bg`]a`?`ca`a`YbhUfVYfY]W`i`bhYb`k`]ggYb`"

6]`XbUW`k`Y]gY.`G\`i`hhYfghcW_ž`D]i`UVUmž`K`_]`7ca`a`cbg`

f[bWh]cbfKž`gž`]XŁ`o`j`Uf`^gž`Z`g`1`X"[`Yh9`Ya`Ybhg6mHU[`BUa`YfgŁQ\$Q`
]Z`fK"[`Yh9`Ya`Ybh6mXf]XŁŁ`fYhi`fb`/`^g`1`X"WfYUHY9`Ya`YbhfgŁ`^g"]X`1`
]X`/`^g`"gfWŁ`"\`hdg.`#AŁ`bbYWh"ZUWVcc_`bYh#YbSl`G#gX_`^g.`I`ZVa`1`%`
j`Yfg]cb1`j`'`"&`/`Z`g"dUfYbhBcXY"]bgYfh6YzcFYfłgž`Z`gŁ`qfKcW`a`Ybhž`
fgWf]dhfž`fZUWVcc_!`^ggX`fŁŁ`/`

8YhU]`g`

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