

GJ ' ?]fW\ UbgW\ Òf]b ['ZY]Yfh
VYY]bXfi W_YbXYb ') . \$!G]Y [']b 'XYf
6UmYfb`][U

GJ ' ?]fW\ UbgW\ Òf]b ['ZY]Yfh'a]h'Y]bYa ') . \$!<Y]a g]Y [' [Y [Yb
Gcbh\cZYb 'XYb 'YfghYb 'GU]gcbg]Y ['hfchn' l bhYfnU\`"
Ni gW\Ui Yf'† VY'b°

5a 'GUa ghU ['ZUbX']b ' ?]fW\ UbgW\ Òf]b ['Y]b'a]h'GdUbbi b []
Yfk UfhYhg' : i » VU`gd]Y`XYf'6UmYfb`][U'ghUhhž]b 'XYa 'X]Y
<Y]a a UbbgW\ UZh'GJ ' ?]fW\ UbgW\ Òf]b ['XYi h'W\ 'a]h') . \$' [Y [Yb 'XYb
%": 7 'Gcbh\cZYb ['Yk Ubb" J cf' (* \$ 'Ni gW\Ui Yfb 'Yf'YVhYb 'X]Y : Ubg
hfchn'XYf'\c\Yb 'HYa dYfUhi fYb 'Y]b 'dUW_YbXYg'A UhW\žXUg'Xi fW\
Y]bY'ZFØ\Y'J Yf'Yhni b ['i bX'Y]bY'FchY' ? UfhY'ZØf'X]Y ; ÀghY
[Y_YbbnY]W\ bYh'k Uf" '8Yf'G]Y ['a Uf_]Yfh'XYb 'YfghYb '9fZc` ['XYf
GU]gcb'ZØf'X]Y ; Ugh [YVYf'i bX'k]fX'U'g [fc» Yf' ‡ VY`]b 'XYb
Fi dYfh]k]b_Yfb ['YZY]Yfh"

8 Ug'YfghY 'Hcf'XYf'DUfh]Y'Z]Y`VYfY]hg']b 'XYf'YfghYb 'Gd]Y'a]bi hYž'U`g
; UVf]Y`² `YfYf'Y]bYb'9W_VU`j cb'A Ubi Y`Ca Y'Ubck g_midYf'?cdZ
]a 'BYhn'j YfgYb_hY" '8]YgY'6`]hnZØ\fi b [' [UV'XYa 'GJ' ? XUG'bØh][Y
GY`Vghj YfhfUi Ybž'i a 'gY]b'Gd]Y`k Y]hYf'ni 'Xca]b]YfYb" '8]Y ; ÀghY
Ui g'Gcbh\cZYb`]Y» Yb'g]W\ 'YXcW\ 'b]W\h'Ybha i h][Yb'i bX
j Yfgi W\ hYbž'a]h'Y]bYa : fY]ghc» j cb'Gd]Y'YfhfU]bYf'5bXfYUg
<]bXY'Ub [žXYb'5i g [`Y]W\ 'ni 'Yfn]Y'Yb" 'GJ'?!?YYdYf'9 [cb'K YVYf
VYk U\fhY'YXcW\ 'gY]b'HYUa 'a]h'ghUf_Yb'DUfUXYb'j cf'XYa
; Y [Ybhcf"

GW\ `ØggY`YfY][b]ggY`XYg'Gd]Y`g

9]b'YbhgW\Y]XYbXYf'A ca Ybh_Ua `]b'XYf'&) "A]bi hYž'U`g'9`]Ug
<i VYf'bUW\ 'Y]bYa 'Ni gUa a YbdfU`XYg': Y`XYg'j Yfk]YgYb'k i fXY"

8]Yg'ZØ\fhY`XUni ž'XUgg'?]fWUbgWÅÖf]b[`X]Y`nk Y]hY`<À`ZhY`]b
l bhYfnU\`gd]Y`Yb`a i gghY`"Hfc hn`X]YgYf`<YfUi gZc fXYfi b[`[Y`Ub[
Yg`XYb`<Ui g\YffYbž`XUg`Gd]Y`i bhYf`?cbhfc`Y`ni `U`hYb`"H\cfghYb
B]W`Ug`gYhnhY`_i fn`j cf`XYf`<U`VnY]h`Y]bYb`k Y]hYfYb`5_nYb hž`U`g`Yf
GUa`a m`GW`k Ufn`VYX]Yb hYž`XYf`]a `B UW`gW`i gg`XUg`&.\$`Yfn]Y`hY
i bX`gca`]h`XUg`HYUa` `a`]h`Y]bYa` `VYfi` \][YbXYb`J`cf gdfi b[`]b`X]Y
DUi`gY`gW`]W`hY`"

⇒`XYf`nk Y]hYb`<U`VnY]h`nY][`hYb`X]Y` ; Ugh[YVYf`k Y]hYf`]b
8ca`]bUbn`"K`À\fybX`Ca` Y`Ubck`g_m`ia` Y`fZUW`XUg`Hcf`Ubj`]g]YfhYž
n]gW`hY`Y]b[`i`hYf`GW`i`gg`j`cb`ž` `]Ub` ; U`Yf`[Y[Yb`X]Y`@UhY`"9]b
k Y]hYfYg`?cdZVU`hcf`j`cb`²` `YfYf`k`i`fXY`U`YfX]b[`g`k`Y[Yb`Y]bYg
GW`i`VgYfg`b]W`h`UbYf`_Ubbhž`k`Ug`X]Y` ; ÅghY`]b`]\fyf`<cZZbi b[`Ui`Z
Y]bY`K`YbXY`ni`gÅh`]W`Zfi`ghf]YfhY`"

HfU]bYfgh]a`a`Yb`i`bX`5i`gV`]W`_

B UW`X]Ya` `Gd]Y`Ài` »YfhY`g]W`<]bXY`Ub[`YbhhÅi`gW`h`ØVYf`X]Y
@Y]ghi b[`gY]bYg`HYUa`g.`K`]f`\UVYb`\Yi`hY`U`Yg`j`Yfa`]ggYb
`UggYbž`k`Ug`]a` `i` »VU`b`Òh][`]gh`"8`Ug`\Uh`gW`cb`a`]h`XYa` `5bdZ]Z
VY[`cbbYb`" `Àa` `ni`Zc`[Y`j`Yf`cf`gY]bY`A`UbbgW`UZh`]\fy`C`fXbi b[`ž
i`bX`Yg`Z]Y`]\a` `gW`k`Yfž`Y]bYb`Gd]Y`Yf`\YfUi`gni`ghY`Ybž`XYf
\YfUi`gfU[`hY` `UV[YgY`Yb`j`cb`XYa` `Hcfk`Ufhž`XYf`]b`5bVYhfUW`h
XYf`l`a`ghÅbXY`j`]Y`Y]bghYW`Yb`a`i`gghY`" `K`Ybb`Yg`V`ØX``Ài`Zhž`[Y`h
Yg`bcW` \Ø\Yf`Ui`g`ž`gc`XYf`HfU]bYf`fYg][`b]YfYbX`"

5i`ZXYf`UbXYfYb`GY]hY`k`Uf`GJ`?!7cUW`H`ca`Ug`@YVYfZ]b[Yf
fi`bXi`a` `ni`Zf]YXYb`"9f`VYnY]W`bYhY`XYb`gW`bY`Yb`HfYZZYf`i`bX`XUg
&.\$`_i`fn`j`cf`XYf`<U`VnY]hdUi`gY`U`g` `cdh]a`U`Yb`GhUfh`ZØf`gY]bY
A`UbbgW`UZh`Hfc`hn`XYf`l`bhYfnU`\`VY\]Y`h`igY]b`HYUa` `X]Y`?cbhfc`Y
i`bX`UfVY]hYhY`\Ufh]b`XYf`8YZYbg]j`Y`" `8Ug`\UVYb`k`]f[Ya`UW`hž
i`bX`gc`g]bX`k`]f]b` : cfa` `j`cb`HcfYb`VY`c`b`h`k`cfXYb`ž`ZØ\fhY
@YVYfZ]b[Yf`k`Y]hYf`Ui`g`"

⇒`XYf`*` -`"A`]bi`hY`ghY`hY`Ca` Y`Ubck`g_m`XYb`Gd]Y`ghUbX`Ui`Z` .\$.ž
U`g`Yf`8ca`]b]_`6i`l`a`Ubbg` : `Ub`_Y`j`Yfk`YfhYhY`"5i`W`XUg`(.\$.ž]Y`
Xi`fW`Y]bYb` : fY]ghc` »`j`cb`Ca` Y`Ubck`g_m`ž`XYf`i`bYfk`UfhYh`i`bX
i`b[Y`\]bXYfh]bg`Ub[Y`9W`_gY[Y`hY`"GW`]Y`»`]W`Yf`\Ø`hY` ; U`Yf`Ui`Z

) . \$ ž b U W X Y a ' G c b h \ c Z Y b ' V Y] Y] b Y a ' ? ` Ā f j Y f g i W \ j Y f g U [h Y ' i b X ' X] Y J Y f h Y] X] [i b [' d U h h Y "

' a k

9]b '6`]W_`bUW\`j`c`f`b`

8]Y`DUfh]Y`[Y[Yb`Gcbh\cZYb`nY][hž`k`]Y`k`]W\h[`Yg`]ghž`]b gW\k`]Yf[Yb`G]hi`Uh]cbYb`XYb`?cdZ`cVYb`ni`VY`U`hYb`i`bX [Ya`Y]bgW\UZh]W\ZØf`XYb`9fZc`[`ni`_`Āa`dZYb`"8]Y`9fZU\fi`b[`XYg Gd]Y`g`k`]fX`VY]XYb`A`UbbgW\UZhYb` \Y`ZYbž`]\fY`5bgĀhnY`ZØf`X]Y bĀW\ghYb`6Y`[Y[bi`b[Yb`ni`ØVYfXYb`_Yb`"8Yf`GJ`?]fW\UbgW\Øf]b[\Uh]g]W`Xi`fW`X]YgYb`ØVYfnYi`[YbXYb`G]Y[`]b`Y]bY`[i`hY`Dcg]h]cb [YVfUW\hž`k`Ā`fYbX`XYf`%":`7`Gcbh\cZYb`Xf]b[YbX`Ub`gY]bYf Gd]Y`k`Y]gY`UfVY]hYb`a`i`ggž`i`a`_`ØbZh][Y`F`ØW_gW`Ā[Y`ni j`Yfa`Y]XYb"

@Y]ghi`b[`Yb`XYf`Gd]Y`Yf`i`bX`ghUh]gh]gW\Y`

5i`gk`Yfhi`b[

⊕`X]YgYa`Gd]Y`[UV`Yg`Y]b][Y`VYa`Yf`_Ybgk`YfhY`]bX]j`]Xi`Y`Y @Y]ghi`b[Ybž`]bgVYgcbXYfY`j`cb`; UVf]Y`^2`YfYf`i`bX`A`Ubi`Y` Ca`Y`Ubck`g_m`^2`YfYf`Yfn]Y`hY`b]W\h`bi`f`XUg`YfghY`Hc`fž`gcbXYfb k`Uf`Ui`W`Ub`a`Y`fYfYb`[YZĀ`f`]W\Yb`5_h]cbYb`VYhY`][h" Ca`Y`Ubck`g_m`U[]YfhY`U`g`_fYUh]j`Yf`?cdZ`]a`A`]hY`ZY`X`i`bX VYfY]hYhY`k`]W\h[Y`7`\UbW`b`j`c`f`@Ui`h`XYb`cZZ]n]Y`Yb`GhUh]gh`_Yb \UhY`XYf`GJ`?]fW\UbgW\Øf]b[`]bg[YgUa`h`%&`GW\ØggY`Ui`Zg`Hc`fž j`cb`XYbYb`)`XYb`K`Y[`]bg`BYhn`ZUbXYb`"a`J`Yf[`Y]W\XUni gW\cggYb`X]Y`; ĀghY`Ui`g`Gcbh\cZYb`YX][`]W\`'`A`U`]b`F`]W\hi`b[XYg`[Y[bYf]gW\Yb`HcfYgž`k`cVY]`_Y]b`GW\i`gg`hUhgĀW`]W\X]Y 5bbU`a`Y`ZUbX"

8]Y`6U`VYg]hngHUh]gh]_`nY][hY`ni`XYa`ž`XUgg`?]fW\UbgW\Øf]b[`a`]h) , , i`XYb`[fØ»YfYb`5bhY`]Ua`6U`U`hYž`k`Ug`j`Yfa`i`h]W\ni`]`fYf , VYf`Y[Yb`Y]h]b`XYf`C`ZYbg]j`Y`VY]hfi`["8]Y`5bnU`X`XYf [Yk`cbbYbY`Nk`Y]_Āa`dZY`gdF`UW`YVYbZU`g`ZØf`X]Y`; Ugh[YVYfž`X]Y) & i`XYf`X]fY`_hYb`8i`Y`Y`ZØf`g]W\`Yb`hgW\]YXYb"

9a ch]cbYb`i bX`FYU_h]cbYb`bUW`XYa`Gd]Y`

B UW`XYa`GW`i ggdZ]Z`k Uf`X]Y`Gh]a`a`i`b[`VY]`XYb`5bZY`YfYfb
i bX`Gd]Y`Yfb`XYf`<Y]a`a`UbbgW`UZh`Yi`d`c]f]gW`":`Øf`j`]Y`Y`k`Uf`X]Yg
b]W`h`bi`f`XYf`YfghY`G]Y[`XYf`GU]gcbž`gcbXYfb`Ui`W`Y]b
YbhgW`Y]XYbXYf`GW`f]hh]b`X]Y`f]W`h][`Y`F]W`hi`b[``8Yf`HfU]bYf
H`ca`Ug`@VYfZ]b[`Yf`VYhc`b`h`ž`k`]Y`k`]W`h][`X]YgYf`G]Y[`ZØf`XUg
HYUa`gY]ž`i`a`XUg`GY`Vghj`Yf`h`Ui`Yb`ni`gh`À`f`_`Yb``

5i ZXYf`UbXYfYb`GY]hY`k`Uf`X]Y`9b`h`À`i`gW`i`b[`VY]`XYb`i`;`À`ghYb
[`fc`»`" `Gd]Y`Yf`h`U]bYf`5bXfYUg`<`]bXY`Ub[`À`i`»`Yf`h`Y`g]W`Z`fi`ghf]Yf`h
ØVYf`X]Y`@Y]ghi`b[`gY]bYf`A`UbbgW`UZh`i`bX`XYfYb`ZY`YbXYg
GY`VghVYk`i`gghgY]b``8]YgY`_f]h]gW`Yb`K`c`f`h`Y`gd]Y[`Y`h`Yb`X]Y
Ya`ch]cbU`Y`@U[`Y`k`]XYfž`X]Y`bUW`gc`W`Y]bYf`XYi`h]W`Yb
B]YXYf`U[`Y`c`Zh`ni`VYc`VUW`hYb`]gh``

; YgUa`hV`]W`_`Ui`Z`X]Y`GU]gcb

A`h`X]YgYa`G]Y[`nY][`h`g]W`X`Yf`GJ`?`]fW`UbgW`Øf]b[`k`Y]hYf`b
cdh]a`]gh]gW`ZØf`X]Y`VYj`c`f`ghY`Y`bXYb`Gd]Y`Y`XYf`6UmYfb`]U`8Yf
GU]gcbghUf`h`k`Uf`V]g`Y`f`c`d`f][`ž`i`bX`X]YgYf`YfghY`8fY]Yf`_ØbbhY
YbhgW`Y]XYbX`gY]bž`i`a`XUg`F`i`XYf`Y`fi`a`ni`fY]»Yb``B`UW`X]YgYa
Gd]Y`VY`Y[`Yb`X]Y`5bgW`Øf]b[`Yf`XYb`%\$``D`U`h`n]b`XYf`HUVY`Y`i`bX
UVYb`bi`b`i`Di`b`_`h`Y`Ui`Z`]f`Ya`?`c`b`h`c``

⇒a`i`Y[`YbgU`h`X`U`ni`V`Y]V`h`X`Y`f`%``: `7`G`c`b`h`c`Z`Y`b`i]b`XYf`HUVY`Y`Y
i`bhYf`8`fi`W`ž`X`U`g]Y`bc`W`_`Ui`Z`]f`Yb`YfghYb`Di`b`_`h`]b`X]YgYf`GU]gcb
k`Uf`h`Yb`a`ØggYb``8]Y`b`À`W`ghYb`Gd]Y`Y`g]bX`YbhgW`Y]XYbXž`i`a
j`Yf`c`f`YbYg`HYffU]b`[`i`h`ni`a`UW`Yb`i`bX`XUg`b`Øh][`Y
GY`Vghj`Yf`h`Ui`Yb`ni`f`Ø`W`_`ni`[`Y`k`]b`b`Y`b``

: Øf`X]Y`i`Ubg`i`bX`Gd]Y`Yf`VY]XYf`HYUa`g`k`]fX`Yg`]bhYfYggUb`h`gY]b
ni`VYc`VUW`hYbž`k`]Y`g]W`X]Y`ØVf][`Yb`Gd]Y`Y`XYf`GU]gcb
Ybhk`]W`_`Y`b`ž`k`c`VY]`]bgVYgcbXYfY`X]Y`_ca`a`YbXYb`6Y[`Y[`bi`b[`Yb
ØVYf`X]Y`Gh`À`f`_`Y`i`bX`5bdUggi`b[`g`Z`À`][`_`Y]h`X`Y`f`A`UbbgW`UZh`Yb
YbhgW`Y]XYb`_ØbbhYb``

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