

@UggYb`G]Y`= \ fY` : fi ghfUh]cb` `cg`i bX
_`Āa dZYb`G]Y`i a` `6Y`c` \bi b[Yb

⊕`XYb`Y`hnhYb`%&`A`cbUhYb`k`UfYb`X]Y` :]bUbna`Āf`_hYž
Y]bgW`Y`Y`»`]W`XYg`?`fmdhc!`i`bX`XYg`hfUX]h]cbY`Y`b`
:]bUbngY`_hcfğž`a`]h`Y]bYf`F`Y`Y` \Y`_UhUghfcd` \U`Yf` : Y` \ `gW`Ā` [Y`
_cbZfcbh]Yfhž`X]Y`j`]Y`Y`5`b`Y`[Yf`X`Uni` `VfUW`hYbž`g]W`Ua` `?`cdZ
ni`_fUhnYb`i`bX`J`Yf`i`ghY`ni`n`Ā` \Yb`"Ni`a` `6Y]gd]Y`k`i`fXYb
bUW`XYa` `Ni`gUa`a`YbVfi`W`j`cb`HYffU`#@`B5`]a` `A`U]`i`bX
XYa` `?`cb`_i`fg`XYf`?`fmdhcV`ŌfgY` : HL`]a` `Bcj`Ya`VYf`&\$&&
a`Y` \ `f`U`g`*)`\$`A`j`]]UfXYb`8`c` ``Uf`j`ca` `?`fmdhca`Uf`_h`j`Yfb]W`hYh`
⊕`Ā` \ `b`]W`Yf`K`Y`j`gY`j`Yf`c`fYb`⊕`j`Yg`hc`fYb`A`j`]]UfXYb`j`cb
8`c` ``Ufž`b`UW`XYa` `X]Y`J`YfY]b][`hYb`GhUUhYb`]` \ `fYb
nk`Y`j`h[`f`Ō`»`hYb`j`YfnY]W`bYhYb`6`Ub`_`WfUg` \ `]b`XYf` ;`YgW`]W`hY
bUW`XYa` `Ni`gUa`a`YbVfi`W`XYf`G`]W`b`J`U`Y`m`6`Ub`_`Y`hnhY
K`c`W`Y`"⊕`a`]hYb`XYf`?`f]gY`VYZU` \ `XUg`@`UbX`nk`Y`k`Y`j`hYfYb
6`Ub`_`Ybž`XYb`/`Ua`d`Λ`Y`]]d`/`



⊕`XYb`Y`hnhYb`%&`A`cbUhYb`k`UfYb`X]Y` :]bUbna`Āf`_hYž
Y]bgW`Y`Y`»`]W`XYg`?`fmdhc!`i`bX`XYg`hfUX]h]cbY`Y`b` :]bUbngY`_hcfğž`
a`]h`Y]bYf`F`Y`Y` \Y`_UhUghfcd` \U`Yf` : Y` \ `gW`Ā` [Y`_cbZfcbh]Yfhž`X]Y`j`]Y`Y`
5`b`Y`[Yf`X`Uni` `VfUW`hYbž`g]W`Ua` `?`cdZ`ni`_fUhnYb`i`bX`J`Yf`i`ghY`ni`

nÄ\`Yb"

Ni a `6Y]gd]Y`k i fXYb`bUW`XYa`Ni gUa a YbVfi W`j cb
HYffU#@ B5`ja`A U]i bX`XYa`?cb_i fg`XYf`?fmdhcVÖfgY` : HL`ja
Bcj Ya VYf`&\$&&`a Y\`f`U`g`*) \$`A`j`]UfXYb`8c``Uf`j ca`?fmdhca Uf_h
j Yfb]W`hYh" `#`Ä`b`]W`Yf`K`Y]gY`j Yf`cFYb`#j YghcfYb`A`j`]UfXYb`j cb
8c``Ufž`bUW`XYa`X]Y`J`YfY]b][`hYb`GhUUhYb`j\`fYb`nk`Y]h[fÒ» hYb
j YfnY]W`bYhYb`6Ub`_WfUg\`j`b`XYf` ; YgW`jW`hY`bUW`XYa
Ni gUa a YbVfi W`XYf`G`]W`b`J`U`Y`m`6Ub`_`Y`h`h`Y`K`c`W`Y`" `#`a`]h`h`Y`b
XYf`?`f]gY`VYZU\`X`Ug`@`Ub`X`nk`Y]`k`Y]h`Y`f`Y`b`6Ub`_`Y`b`ž`X`Y`b`6`Y`h`f`]Y`V
Y]bni ghY`Y`b`ž`i`a`g`Y]b`6Ub`_`Y`b`g`m`g`h`Y`a`ni`g`W`Ø`h`n`Y`b`"

8]Y`6`Y`k`Ä`h][`i`b[`X]YgYf`J`Yf`i`ghY`U`g`5`b`Y[`Yf`_`U`b`b`Y]b`Y
j`Yf`\`Y`f`Y`b`X`Y`9`f`Z`U`\`fi`b[`g`Y]b`ž`X]Y`j`Y`fg`W`j`Y`X`Y`b`Y`9`a`c`h]c`b`Y`b`k`Y]
:`fi`gh`f`U`h]c`b`ž`9`b`h`Ä`i`g`W`i`b[`i`b`X`K`i`h`\`Y`f`j`c`f`fi`Z`Y`b`_`U`b`b`"K`Y`b`b
5`b`Y[`Yf`U`i`Z[`fi`b`X`V`Y`h`f`Ø[`Yf]g`W`Y`f`D`Ä`b`Y`c`X`Y`f`X`Y`g
Ni gUa a YbVfi W`g`j`cb`#`j`Y`gh]h]c`b`Y`b` ; Y`X`j`Y`f`]Y`f`Y`b`ž`Z`Ø`\`Y`b`g]Y
g]W`a`Ö[`]W`Y`f`k`Y]gY`V`Y`h`f`c[`Y`b`c`X`Y`f`Y`b`h`Ä`i`g`W`h`" ; Y`X`ni`j`Y`f`]Y`f`Y`b
_`U`b`b`5`b[`gh`i`b`X`G`h`f`Y`g`g`j`Y`fi`fg`U`W`Y`b`i`b`X`]a`9`l`h`f`Y`a`Z`U`ni
8`Y`d`f`Y`g`g]c`b`Y`b`Z`Ø`\`f`Y`b`"

5VYf`k`Ug`k`Ä`f`Y`ž`k`Y`b`b`Y`g`a`Ö[`]W`k`Ä`f`Y`ž`X]YgY`9`a`c`h]c`b`Y`b`U`i`Z
i`b`h`Y`f`\`U`h`g`U`a`Y`i`b`X`U`i`Z`f`Y[`Y`b`X`Y`K`Y]gY`Z`f`Y]ni`g`Y`h`n`Y`b`3`<]Yf`_`ca`a`h
7`f`m`d`h`c`5`f`Y`b`U`]b`g`G`d]Y`"9`g`]gh`Y]b`D`U`m`!`h`c`!9`U`f`b`f`D`&9`l`?`U`a`d`Z`g`d]Y`
U`i`Z`7`m`V`Y`f`5`f`Y`b`U`ž`a`]h`X`Y`a`#`j`Y`gh`c`f`Y`b`X`Y`f`H`f`U`i`Y`f`i`b`X` :`fi`gh`f`U`h]c`b
@`Z`h`a`U`W`Y`b`_`Ö`b`b`Y`b`ž`X]Y`g]W`U`i`g`\`f`Y`b`Z]b`U`b`n]Y`Y`b`J`Y`f`i`gh`Y`b
Y`f[`Y`V`Y`b`"

K Ug`]gh`7 mVYf!5 fYbU3

7mVYf`5fYbU`]gh`Y]bY`A`Y`h`U`j`Y`fg`Y`!`A`i`h]d`U`m`Y`f`!`D`U`m`!`h`c`!9`U`f`b
f`D`&9`l` ; U`a`]b[`!`D`U`h`h`Z`c`f`a`ž`U`i`Z`X`Y`f`G`d]Y`Y`f`U`b`?`U`a`d`Z`k`Y`h`V`Y`k`Y`f`V`Y`b
h`Y]`b`Y`\`a`Y`b`i`b`X`?`f`m`d`h`c`!6`Y`c`\`b`i`b[`Y`b`k`]Y`X`Y`b`7`5`H`!`H`c`_`Y`b
j`Y`f`X]Y`b`Y`b`"

7mVYf`5fYbU`k`i`f`X`Y`j`c`b`X`Y`f`]b`h`Y`f`b`U`h]c`b`U`Y`b` ; U`a`]b[`!`:]f`a`U`

æa dYf]i a ; Ua Yg`Ybhk]W_Y`h`8]Y`Gd]Y`YYbhk]W_`i b[gZ]fa U`\Uh]b
XYf`J Yf[Ub[Yb\Y]h`X]Y`DfcXi _h]cb`YfZc`[fY]WXYf`Gd]Y`Y`k]Y
6Uh`h`YZ]Y`Xž`GhUf`K Ufg`F YVY``]cbž`A UX`A UI `i bX`H\Y`K]hWXYf
i bhYfghØhnh"æa dYf]i a ` _Ubb`Ui Z`ØVYf`UW`h`æ\`fY`HYUa UfVY]h`i bX
` \$`A]``]cbYb`8ck b`cUXg`j cb`ØVYf`%) `<UbXmgd]Y`Yb
ni fØW_V`]W_Yb"

Ni `XYb`Hcd!: Ø\fi b[g_fÀZhYb`XYg`Dfc`Y`_hg`[Y\`ØfYb`X]Y
A]hVY[fØbXYf`B]_c`U`DUi bcj]Wi bX`GhY`ZUb`A]`c`^`c`j]W`5bXYfY`g]bX
J`UX]a]f`æ]Wž`8`æfX`Y`8cj YXUbž`GUgU`6c[XUbcj]Wi bX`i fcg
5fUbX`Y`cj]W

C V k c\`X]Y`D`Uhhzcf`a`Ui Z`XYa`8c[YW`U]b!B`Yh`k`Yf`_`Ui Z[YV`Ui h
]ghž`_ØbbYb`6Ybi hnYf`5ggYhg`Ui g`VY`]YVhYb`6`c`W`W`U]bg
ØVYfvfØW_Ybž]bXYa`g]Y`Y]bY`K`YV`!6f]YZhUgW`Y`Ub`gW`]Y»Yb"

K]f`ghY``Yb`7fmdhc`5fYbU`j`c`f

7fmdhc`5fYbU`]gh`Y]b`8Yg`_hcd!`i bX`a`cV]`Yg`A]b]gd]Y``]a`7mVYf
5fYbU!²`_cgmg`hYa`"9g`]gh`Y]b`_cghYb`cgYg`&ž)!8!`?Ua`dZgd]Y`ž`XUg
Yg`Gd]Y`Yfb`Yfa`Ø[`]W`hž`Ub`Hi`fb]YfYb`a`]h`XYb`[fØ»hYb`B`Ua`Yb`XYf
?fmdhc]bXi`ghf]Y`hY]ni`bY`a`Yb"

8 Ug`Gd]Y`k`i`fXY`j`cb`9fY][`b]ggYb`]bgd]f]Yfhž`X]Y`k`À`fYbX`XYg
6ÀfYba`Uf`_hYg`&\$&&7`Ucg]a`?fmdhc!F`Ui`a`Ub[`Yf]W`hY`h`\UVYb"
Ni`X]YgYb`_UhUghfc`d`U`Yb`9fY][`b]ggYb`[Y\`ØfYb`XYf
Ni`gUa`a`YbVfi`W`XYf`HYffU!6`c`W`W`U]b`]a`A`U]i`bX`X]Y
ægc`j`YbnUbhfÀ[`Y`j`cb`i`HL`i`bX`XYa`VY`]YVhYb`?fmdhc!
<YX[`YZcbXg`H`fY`Y`5ffck`g"5VYf`hfch`XYf`5bghYW`i`b[`nUi`VYfhYb
[fc»Y`6fUbW`YbU`_hYi`fY`k`]Y`6]bUbW`i`bX`9h`YfYi`a`Y]b`@`W`Y`b
Ui`Z`X]Y`i`Yg]W`hYf`XYf`5b`Y[`Yf`"5`g`gc`W`Yg`j`Yfgi`W`h`XUg`Gd]Y`ž
VYfØ`a`hY`i`bX`VYfØ`W`h][`hY`i`:]`[`i`fYb`]a`K`Y`hfUi`a`b`UW`ni`U`a`Yb"

7fmdhc`5fYbU`j`YfZØ[`h`ØVYf`%&7`UfU`_hYfYž`X]Y`j`cb`XYf
DYfgØb`]W`_Y]h`fYU`Yf`A`Uf`_hY]b`Y`a`Yf`]b`XYf`?fmdhc]bXi`ghf]Y
[`YdfÀ[`h`k`i`fXYb`" <]Yf`]gh`Y]bY`i`VYfg]W`h`XYf`7`UfU`_hYfY"

;`C`5`H.`8]Y`i`:]`[`i`f`ghY``h`Y]bYb`a`cXYfbYb`Gi`dYf`Y`XYb`XUfž`XYf
XUg`@YVYb`Ui`Z`XYa`A`Ufg`YfZc`fgW`h`i`bX`gc`n]U`Y`A`YX]Yb`j`c`f

: Y]bXYb`gW\Øhnh"

8c[Y@cfX. '8]YgY`Gd]Y`Z][i f`a]h`<i bXYghfi _hi f`k]fX`U`g` ; Y]gh`XYg
Jc`_g[Y`XYg `XUf[YghY`h"

GUa a m`6U\Ua Ug. '8]Y` :][i f`nY][h`Y]bYb`↑ b[Yb`A]`]UfX`Àfž`XYf
gY]b` ; Y`X`j`Yfk`YbXYhž`i a `X]Y`Dc`]h`_i bX`Ub[YgW`U[YbY
<YX[YZcbXg`ni `Z]bUbn]YfYb"

J]hU`9H<. '8]YgYf`7\UfU_hYf`]gh`Y]b` ; Yb]Y`]a `Gd]Y`ž`XUg`Ga Ufh
7cbhfUW`hg]b`X]Y` ; U`UI]Y`[YVfUW`h`U`h"

GUhcg\]. '8]Y`Gd]Y`Z][i f`k]fX`U`g`? Òb][ž`GW\ÒdZYf`i bX`J U`hYf`XYf
[YgUa hYb`6fUbW`Y`Ub[Ydf]YgYb"

79. '8]Y` :][i f`ghY`h`Y]bYb`? fmdhc!6i g]bYgg!HmW`c b`XUfž`XYf`X]Y
[fÒ» hY`nYbhfU`]g]YfhY`6ÖfgY` :]bUbW` : [Y[fØbXYh`U`h"

A]W`UY`D]`ch`'8]Yg`]gh`Y]b` <Ui dhj`YfhY]X][Yf`XYf`6]hW`]b`A UI]g`ž
XYggYb`A]gg]cb`Yg`]ghž`U`Y`5`hW`]bg`a]h`gY]bYb`@UgYfUi [Yb
Ui gni fchhYb"

8cb h`?k cb. '8]Y`Gd]Y`Z][i f`Yf`Ub[h`6YfØ\ a h`Y]h`Xi fW`XUg
HYffU V`Y!Dfchc`_c` ž`XUg`5b`Àb[Yf`Ui Z`XYf`9fXY`ni a `5Vghi fn
VfUW`hY"

6fc_Yb`5ffck . '8]Yg`]gh`Y]b`Y]bZi`ggfY]W`Yf`J 7! : cbXgž`XYggYb
Dcg]h]cbYb`Xi fW`XUg` VÒgY`a dYf]i a `8U`Ua YXU`F`YgYUfW`
fi]b]Yfh`k i fXYb"

8]Ua cbX`<YI . '8]Yg`]gh`Y]b`[fc»Yf`?Ài ZYfž`XYf`X]Y`VYghYb
?`Ua chhYb`i bX`X]Y`[fÒ» hYb`8]Ua UbhYb`VYUbgdfi W`hi bX`X]Y
[fÒ» hYb`? fmdhc!7ca a i b]hmg`gW`UZZh"

6]hA Ub. '8Yf`U`g`GUa a m`6U\Ua Ug`gW`]a a ghYf`5`VhfUi a
VYnY]W`bYhY`7\UfU_hYf`Yf`À`h`6i Zg`Xi fW`X]Y`>][X`Ui Z`GW`i f_Yb"

5`g_]. '8]Y`Gd]Y`Z][i f`dcfhf`Àh]Yfh`XUg` ; Y\]fb`]\]bhYf`XYf

ni gUa a Yb[YVfcWXYbYb`nYbhfU`]g]YfhYb`6ÖfgY` : U\ fYb\Y]h"

75H!Hc_Yb

7mVYf`5fYbU`Hc_Yb`f75HĚ]gh`Y]bY`bUh]j Y`? fmdhc k Ä\fi b[ž`X]Y`XUg
; Ua]b[!A YhUj YfgY`j cb`7mVYf`5fYbU`UbhfY]Vh``9g`j YfZØ[h`ØVYf`Y]b
; YgUa hUb[YVchj cb`ZØbZ`A]``]UfXYb`Hc_Ybž`X]Y`]a` `8c[YWkU]b!
BYhnc Yf`_Ui g[Y[YVYb`k YfXYb"

Gd]Y`Yf`k YfXYb`]b`75H`ZØf`XUg]; Yk]bbYb`j cb`? Ua dZi fb]YfYbž
XUg`8i fWk ZØ\ fYb`UbXYfYf`5_h]j]hÄhYb`]bbYf\U`V`XYg`Gd]Y`g`i bX
XYb`?Ui Zj cb`; Y[YbghÄbXYb`]a` `Gd]Y`VY`c`b`h``75H`gd]Y`h`Ui Wk
Y]bY`Yb`hgWkY]XYbXY`F`c``Y`VY]`Hc_Yb!@cW_i dgž`F`ØW__Äi ZYbž`6i fb`gž
GhU_]b[`i bX`@]ei]X]hÄhgUb`fY]nYb``A]h[`]YXYf`XYf`XYnYbhfU`]g]YfhYb
Ui hcbca Yb`C`f[Ub]gUh]cb`fB`5C`Ěj cb`7mVYf`5fYbU`j Yfk YbXYb`XYb
Hc_Yb`ZØf`; cj YfbUbW!5Vgh]a` a`i b[Ybž`X]Y`Gd]Y`XYg][bg
VYhfYZYb"

; Y[YbghÄbXYž`X]Y`Gd]Y`Yf`]b`a`]h`7mVYf`5fYbU`j YfVi bXYbYb
K YV&!Gd]Y`Yb`Yf\U`hYbž`_ÖbbYb`[YVfUb`bh`i bX`ni` [YdfÄ[hYbž
b]Wk`h`Zi b[]V`Yb`Hc_Yb`fB: HgĚ`Ui Z[Yk YfhYh`k YfXYb"

5VgWk`i gg

7mVYf`5fYbU`V]YhYh`Y]b`Ui ZfY[YbXYg`A YhUj YfgY!9f`YVb]gž`XUg
; Ua]b[`a`]h`? fmdhc!6Y`c`b`i b[Yb`_ca`V]b]Yfh`A]h`XYa` `GhUfh`XYf
7fmdhc`5fYbU`\UVYb`Ěj YghcfYb`Y`nh`Y]bY`Ui ZfY[YbXY`D`UhZc`fa` ž
i`a`]\fY`9a`ch]cbYb`ni` `Yb`hZYggY`b`i bX`[`Y]WknY]h][`6Y`c`b`i b[Yb
Xi fWk`XUg`D&9!; Ua Yd`Um`ni` `j YfX]YbYb"

8YhU]`g

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