

7 \]bU`gYbXYh`Hfi a d`X]Y`6chgWÅ UZh. `8Yf I G!5i Zgh]Y[` \ Å`h`b]WÅ h`Ub

⊕`XYf`j Yf[Ub[YbYb`K cWÅY` \Uh`I G!DfÅg]XYbh`8cbU`X`Hfi a d`XYb`k]fhgWÅ UZh]WÅYb`8fi W`Ui Z`7 \]bU`k Y]hYf`Yf\ Ò\h`"DY_]b[gWÅ]W`hY`YXcWÅ`Y]bY`_`UfY`6chgWÅ UZh`8Yf`5i Zgh]Y[`7 \]bUg`k]fX`b]WÅ h`[Yghcddh`k YfXYb`"9]b`[fc» Yg`dc`h]gWÅ Yg`HfY ZZYb`]b`XYf`< Ui dhghUXh`Vch`XYb`dYfZY`_hYb`F U\ a Yb`ZØf`Y]bY`5bhk cfh`"6Y]`XYf`J YfgUa a`i b[`XYf`/ Ua d/ , &&&/nk Y] G]hni b[Yb`/ Ua d/ , &&\$/ž`VY]`XYf`7 \]bUg; fYa]Ybž`X]Y dc`h]gWÅ`X]Y`FY[]Yfi b[`i bhYfghØhnYbž`ni gUa a Yb`_ca a Ybž`Y[h`X]Y`FY[]Yfi b[`]\fY`D`ÀbY`XUf`i bX`gYhnh`XYb`Hcb`ZØf`XUg`_ca a YbXY`⊕\f`"7 \]bUg`Df]cf]hÅhYb`ZØf`X]Y`Ni`_i bZh`9]b`nYbhfU`Yg`5b`]Y[Yb`]gh`Ygž`X]Y`J YfVfUi WÅYfbUWÅ ZFU[Y`ni ghY][Yfbž`i a`g]WÅYfni ghY`Ybž`XUgg`7 \]bU`b]WÅ h`Ui Z`9I dcfhY`Ub[Yk]YgYb`]ghž`i a`gY]bY`f]Yg][Yž`UVYf`Ub[gUa`/ Ua d^Y`d/`

⊕`XYf`j Yf[Ub[YbYb`K cWÅY` \Uh`I G!DfÅg]XYbh`8cbU`X`Hfi a d`XYb`k]fhgWÅ UZh]WÅYb`8fi W`Ui Z`7 \]bU`k Y]hYf`Yf\ Ò\h`"DY_]b[`gWÅ]W`hY`YXcWÅ`Y]bY`_`UfY`6chgWÅ UZh`8Yf`5i Zgh]Y[`7 \]bUg`k]fX`b]WÅ h`[Yghcddh`k YfXYb`"9]b`[fc» Yg`dc`h]gWÅ Yg`HfY ZZYb`]b`XYf`< Ui dhghUXh`Vch`XYb`dYfZY`_hYb`F U\ a Yb`ZØf`Y]bY`5bhk cfh`"6Y]`XYf`J YfgUa a`i b[`XYf` nk Y]G]hni b[Yb`ž`VY]`XYf`7 \]bUg; fYa]Ybž`X]Y dc`h]gWÅ`X]Y`FY[]Yfi b[`i bhYfghØhnYbž`ni gUa a Yb`_ca a Ybž`Y[h`X]Y`FY[]Yfi b[`]\fY`D`ÀbY`XUf`i bX`gYhnh`XYb`Hcb`ZØf`XUg`_ca a YbXY`⊕\f`"

7 \]bUg`Df]cf]hÅhYb`ZØf`X]Y`Ni`_i bZh`

9]b`nYbhfU`Yg`5b`]Y[Yb`]gh`Ygž`X]Y`J YfVfUi WÅYfbUWÅ ZFU[Y`ni ghY][Yfbž`i a`g]WÅYfni ghY`Ybž`XUgg`7 \]bU`b]WÅ h`Ui Z`9I dcfhY`Ub[Yk]YgYb`]ghž`i a`gY]bY`f]Yg][Yž`UVYf`Ub[gUa`k UWÅ gYbXY`K]fhgWÅ UZh`ni`i bhYfghØhnYb`"8 Ug`b`ÅWÅ ghY`N]Y`."8]Y`⊕]h]U]j Yb`j cb`

DfÄg]XYbh'L]>bd]b['j cfUbni hfY]VYbž'i a 'XUg'@UbX']b'Y]bY
hYWXbc`c []gWXY'Gi dYfa UWXh'ni 'hfUbgZcfa]YfYbž'k Ug'Xi fWX
j YfghÄf_hY' ðj Ygh]h]cbYb'i bX'X]Y'9]bVYn]Y\i b['XYg'df]j UhYb
GY_hc'fg'[YgWXY\Yb'gc`"

<]bhYf[fØbXY'XYf'k]fhgWX UZh']WX Yb' GhfUHY []Y

DY_]b['hf]ZZh'X]YgY'9bhgWXY]Xi b[Yb'j cf'XYa ' <]bhYf[fi bX'Y]bYg
a Ö[']WX Yb'`Ub [k]Yf][Yb'k]fhgWX UZh']WX Yb'K YhghfY]hg'a]h'XYb
J YfY]b][hYb'GhUUHYb" Hfi a d '\Uh'X]Y'ni gÄhn']WX Yb'NÖ`Y'Ui ZU`Y
WX]bYg]gWXYb' ða dcfhY'Ua '8]YbghU['Ui Z'&\$i 'j YfXcddY'h'i bX
Xfc\h'a]h'k Y]hYfYb'A U» bU\ a Yb'gck]Y'ghfYb[YfYb'?cbhfc`Yb'ZØf
I G! ðj Ygh]h]cbYb']b'7\]bU"

?i fnY'K YfVYY]bV`YbXi b[

K]f' _ÖbbYb'YXY'GWXk]Yf][_Y]h'ØVYfk]bXYbž'i a 'i bgYfY
9bhk]W_ i b['j cfUbni hfY]VYb žYf'_ÄfhY'7\]bUg'fUb[\ÖWXghYf
6YUa hYf'@'E]Ub['j cf'XYb'nU\`fY]WX Yb'8Y'Y[]YfhYb']a ' ; fc» Yb
GUU`XYg'J c`_Yg']b'DY_]b['ni f'9fÖZZbi b[gg]hni b['XYg
BUh]cbU`Yb'J c`_g_cb[fYggYg"8 Ug' [fc» Y'GWX]ZZ'XYf'WX]bYg]gWXYb
K]fhgWX UZh' k YfXY' ghYh][']b'X]Y'Ni _i bZh'gY[Y`b "

7\]bUg'GY`VghVYk i gghgY]b']b'gWXk]Yf][Yb'NY]hYb

9]b'GdfYWX Yf'XYg'5i » Yba]b]ghYf]i a g'[UV'Y]bY'XYi h']WX YfY
5bhk cfh'Ui ZX]Y': fU[Yb'ni 'XYb' < UbXY`g_cbZ]_hYb.' K Ybb'X]Y
I G5'Ui ZY]bYa 'Nc``_f]Y['VYghY\Ybž'k]fX'7\]bU'V]g'ni a '9bXY
_Äa dZYb ž'gU[hY'Yf'XYb' ði fbU`]ghYb" Hfcm'U`Yf
< YfUi gZcfXYfi b[Yb'k]Y'XYb'Y][YbYb'7cj]X!6YgWxfÄb_i b[Ybž
Y]bYf' ða a cV]']Yb_f]gY'i bX'XYa 'HYWXbc`c []Y_cbZ]_h'a]h'XYb'I G5
\Uh'7\]bU'VY[cbbYbž'gY]b'GY`VghVYk i gghgY]b'ni fØW_ni [Yk]bbYb"

J YfhfUi Yb' k Uf'XUg'i bcZZ]n]Y`Y'GWX`U[k cfh'XYf'K cWX Yž'XUg
k Ä\ fYbX'Y]bYf'DfYggY_cbZYfYbn'j cb'7\]bUg'K]fhgWX UZh'gZØ\ fYfb
ZUgh'Y]b'8i hnYbX'A U`j Yfk YbXYh'k i fXY'i bX'VfY]h'ØVYf'X]Y
ghUUh]WX Yb'A YX]Yb'dfÄgYbh]Yfh'k i fXY"

<YfUi gZcfXYfi b[Yb`Z0f`X]Y`W`]bYg]gW`Y`K`]fhgW`UZh

8]Y`cdh]a`]gh]gW`Y`Gh]a` a`i`b`[`_`0bbhY`^YXcW`a` Y`f`K`i`bgW`XYb`_Yb`
U`g`F`Y`U`]h`A`h`g`Y`]b`"`J`]Y`Y`A`Y`bg`W`Y`b`]b`7`\\]bU`V`]W`_Y`b`a`]h`
I`bg]W`Y`f`\\Y`]h`]b`X`]Y`Ni`_i`bZh`"G]Y`g]bX`Y`\\Y`f`V`Y`f`Y`]h`ni`gdUfYb`U`g`
ni`_`cbgi`a`]YfYb`ž`k`À`f`Y`b`X`↑`b[`Y`@`Y`i`h`Y`G`W`k`]Yf][`_`Y`]h`Y`b`\\`U`V`Y`b`ž`
5`f`V`Y`]hgd`^`hn`Y`ni`Z`]b`X`Y`b`i`b`X`X`U`f`U`b`nk`Y`]Z`Y`b`ž`c`V`]`f`@`Y`V`Y`b`V`Y`gg`Y`f`
g`Y`]b`k`]f`X`U`g`X`U`g`]`\\`f`Y`f`9`h`Y`fb`"

⇒a` ;`Y[`Y`bg`U`h`n`i`a` ``Y`h`h`Y`b`^`J`\\`f`h`f`]h`h`7`\\]bU`&`\$`&)`^YXcW`
cdh]a`]gh]gW`Y`Ui`Z`[`Y`gh`0`h`h`X`i`f`W`a`Uf`_`h`V`Y`k`Y[`Y`b`X`Y`9`f`Z`[`Y`
W`]b`Y`g]gW`Y`f`I`b`h`Y`f`b`Y`\\`a`Y`b`i`b`X`H`Y`W`bc`c`[`]Y`b`"I`b`X`k`À`f`Y`b`X`
H`f`i`a`dg`F`0`W`_`Y`f`D`Y`_]b[`V`Y`gc`f`[`h`0`V`Y`f`k`]fhgW`UZh`]W`Y`F`]g]_Y`b`
a`U`W`h`ž`g]Y`\\`h`a`U`b`X`U`f`]b`ni`[`Y`]W`7`\\`U`b`W`b`Z`0`f`X`Y`b`Y`][`Y`b`Y`b`
5`i`Z`g`h]Y`["`

HYW`bc`c`[`]gW`Y`f`5`i`Z`g`h]Y[`h`f`c`h`<YfUi gZcfXYfi b[Yb`

⇒b`X`Y`f`<`U`i`d`h`g`h`U`X`h`i`n`Y`][`Y`b`a`c`X`Y`f`b`Y`ž`]b`^`b`X`]gW`Y`
9`Y`_`h`f`c`Z`U`\\`f`n`Y`i`[`Y`ž`Y`h`k`U`j`c`b`6`M`B`ž`X`]Y`b`i`b`]a`i`[`c`V`U`Y`b`
J`Y`f`_`U`i`Z`g`k`Y`h`h`V`Y`k`Y`f`V`a`]h`H`Y`g`U`g`Z`0`f`Y`b`X`Y`f`F`c`Y`W`Y`]b`g`h`Y`\\`Y`b`ž`
X`U`g`g`7`\\]bU`Ui`Z`X`Y`a`K`Y[`]g`h`ž`Y`]b`Y`:`0`\\`f`i`b[`g`f`c`Y`]a`i`[`f`0`b`Y`b`
H`Y`W`bc`c`[`]Y`g`Y`_`h`c`f`Y`]b`ni`b`Y`\\`a`Y`b`"8]Y`f`Y`_`c`f`X`V`f`Y`W`Y`b`X`Y`
5`b`]a`U`h`]c`b`BY`N`\\`U`&`i`b`X`X`Y`f`9`f`Z`[`X`Y`g`d`f`j`U`h`Y`b`W`]b`Y`g]gW`Y`b`
I`b`h`Y`f`b`Y`\\`a`Y`bg`8`Y`Y`d`G`Y`Y`_`ž`X`Y`gg`Y`b`G`d`f`U`W`a`c`X`Y`G`]W`c`b`J`U`Y`m`
0`V`Y`f`f`U`g`W`h`Y`ž`j`Y`f`X`Y`i`h`]W`Y`b`ž`X`U`g`g`7`\\]bU`g`⇒`b`c`j`U`h`]c`b`Y`b`X`i`f`W`U`i`g`
[`c`V`U`i`i`»`Z`U`g`g`Y`b`_`0`bb`Y`b`"

F`]g]_Y`b`i`b`X`7`\\`U`b`W`b`]a`i`I`G`!`7`\\]bU`J`Y`f`\\`A`h`b`]g`

K`]Y`j`]Y`9`]b`Z`i`gg`H`f`i`a`dg`D`c`h`]h`_`U`i`Z`7`\\]bU`Ui`g`0`V`Y`b`k`]f`X`ž`V`Y`]V`h`
Y`]b`Y`c`Z`Y`b`Y`:`f`U[`Y`"6]g`\\`Y`f`\\`U`h`X`Y`f`I`G`!`D`f`A`g`]X`Y`b`h`j`c`b`X`Y`b`
j`Y`f`g`d`f`c`W`Y`b`Y`b`N`0`Y`b`U`i`Z`W`]b`Y`g]gW`Y`⇒`a`d`c`f`h`Y`U`V`[`Y`g`Y`\\`Y`b`i`b`X`
g]W`Y`g`h`U`h`X`Y`gg`Y`b`U`b`X`Y`f`Y`b`<YfUi gZcfXYfi b[Yb`ni`[`Y`k`U`b`X`h`ž`
Y`]b`g`W`Y`]Y`»`]W`X`Y`f`V`Y`f`U`f`V`Y`]h`i`b[`X`Y`f`I`G`!`c`V`U`!`@`Y`U`X`Y`f`g`]d`!
G`h`f`U`h`Y`[`]Y`"7`\\]b`Y`g]gW`Y`8]d`c`a`U`h`Y`b`b`i`h`n`Y`b`X`]Y`g`^YXcW`ž`i`a`]`f`
@`U`b`X`U`g`j`Y`f`U`b`h`k`c`f`h`i`b[`g`V`Y`k`i`g`g`h`Y`b`i`b`X`g`h`U`V`]Y`b`i`c`V`U`Y`b`
:`0`\\`f`Y`f`X`U`f`n`i`g`h`Y`Y`b`"

6Y]b['ghfYVh'XUbUW ž'gY]b'DchYbn]U''ja '? †ž'F cVch]Wg!'i bX
E i Ubhi a !7ca di h]b[!6YfY]W'Ui gni VUi Ybž]bXYa 'Yg'ghUUh']W
[YZØfXYfhY': c b Xg'ni f'l bhYfghØhni b['hYW.b]gWYf' †bcj Uh]cbYb
i bX'X]Y' †hY[fUh]cb'Ui g'ÀbX]gWYf'l bhYfbY\ a Yb'UbghfYVh" Hfchn
XYf'<YfUi gZcfXYfi b[Yb'g]Y\h'g]W'X]Y'FY[]Yfi b[']b'XYf'@U[Yž'g]W
]b'Y]bYa 'j cb'NÒ`Yb'i bX'GdUbbi b[Yb'[YdfÀ[hYb'l a ZY`X
k Y]hYfni Ybhk]W_Y`b" K c'Yg'6`cW_UXYb'[]Vhž'[]Vh'Yg
8i fWVfØWY ž'ghY`hY'5i »Yba]b]ghYf'K Ub['M'ZYgh"

8YhU]`g'ni f'A Y`Xi b[E i Y`Y`YX]h]cb "Wb b"Wc a

Gci fW. :X]Y!b UW f]W hYb "Uh

8YhU]`g

6Ygi WYb'G]Y'i bg'Ui Z.'b!U["XY