5bf0W hY. 'Dc`nY]ØVYfk UW gY`h j Yfgi W hYb`9]bVfi W `]bg`5i hc\Ui g

I bVY_UbbhY`j Yfgi W hYbž`]b`5bf0W hY`]b`Y]bYb`5i hc\UbXY`
Y]bni VfyWYb"Dc`nY]`b]a a h`JYfXÅW h][ Y`ZYgh`a Y`f`XUni
`]Yf`

5bf0W hYž`Y]bY`_`Y]bY`; Ya Y]bXY`]a`g0X`]WYb`BcfXf\Y]b!
K YghZU`Ybž`k i fXY`Ua`i`fY]hU[ UVYbX`GWUi d`Uhn`Y]bYg`j Yfgi W hYb
:]fa YbY]bVfi W`g`VY]a`Ofh]WYb`5i hc\UbXY`"; Y[ Yb`&\$.%)`I`f`
]bZcfa`]YfhY`XYf`ϕ\UVYf`XYg`6Yhf]YVgž`XYf`Ub`XYf`@]ddghÅXhYf`
GhfU»Y`Ub`g`Ågg][`]ghž`X]Y`Dc`nY]ØVYf`j YfXÅW h][Y`5`_`h]j`]hÅhYb`Ui Z
gY]bYa`i`:]fa Yb[Y`ÅbXY`"I bVY_UbbhY`DYfgcbYb`k i fXYb`gck`c`
Ui ZXYf`:`ÅWY`gY`Vgh`U`g`Ui W`]b`XYf`I a`[ YVi b[`[Yg]W hYhž`k Ug
gcZcfh`X]Y`5i Za Yf_gUa`\_Y]h`XYg`I bhYfbY`a Yfg`Ui Zg]W`nc[`"

K Å`fYbX`XYf`ϕ\UVYf`X]Y`; YgWY`b]ggY`ØVYf`Y]bY
, VYfk UW`i b[ g\_Ua`YfU`]a`6`]W`VY`Y`hž`Yf[ f]ZZ`Y]b`A`]hUfVY]hYf`X]Y
ϕ]h]Uh]j`Y`i bX`VY[ UV`g]W`ni gUa`a`Yb`a`]h`XYb`Y]bhYf`ZYb`XYb
Dc`nY]\_f`ÅZhYb`ni a`GhUbXcfh`8]YgYf`A`]hUfVY]hYf`_c`bbhY`Y]bY
DYfgcbž`X]Y`j YfXÅW h][`YfgW`]Ybž`Ub`Y]bYa`?`Y]bhf`Ub`gdc`fhYf`a`]h
; Y`gYb`_]fWYbYf`Ni`Uggi b[`Yb`hXYW`Yb`"8`cW`hfc`m`XYf`fUgWYb
ϕhYfj`Ybh]cb`[Y`Ub[`Yg`XYa`J`YfXÅW h][ Ybž`ni`Ybh`ca`a`Yb`i bX
g]W`]b`F`]W`hi b[`XYf`@]ddghÅXhYf`GhfU»Y`UVni`gY`hYb`"

Dc`nY]YfY]bgUhn`i bX`i: U`bXi b[gU`h]cb

5i Z[fi bX`XYf`5bbU`a`Yž`XUgg`g]W`a`0[`]WYfk`Y]gY`bcW`k`Y]hYfY
DYfgcbYb`Ui ZXYa`i`:]fa Yb[ Y`ÅbXY`Ui Z`]Y`hYbž`gY`hnhY`X]Y`Dc`nY]
Y]bYb`i`a`ZUb[ fY]WYb`9]bgUhn`UV`"Ni`f`I bhYfgh`Øhni b[`k`i`fXY`Y]b
Dc`nY]`i`VgW`fUi VYf`Ub[ YZcfXYfhž`i`a`XUg`; YV]Yh`ØW`Yb`cg`ni
Xi fW`gi WYb`"@Y]XYf`V`]YV`X]YgY`Gi WY`Y`XcW`c`bY`9fZc`[ž`i`bX

X]Y`HÀhYf`_cbbhYb`ni bÀWgh`b]W`h`Ui Z[Y[f]ZYb`k YfXYb`"

8]Y` : U\`bXi b[`k i fXY`YXcW`gW`bY``Ui Z`X]Y`5i hcVU\`b` ((
Ui g[Yk Y]hYh`8cfh`hfUZ`X]Y`Dc`nY]`Ui Z`Y]b` : U\`fnYi [ `a]h`XYbgY`VYb
?YbbnY]W`Yb`Ui g` : Y`gYb_]fW`Ybž`XUg`nk Y]`a` Àbb`]W`Y` ðgUggYb
\UhhY``6Y]`XYf`?cbhfc``Y`ghY``hY`g]W` \`YfUi gž`XUgg`X]Y`VY]XYb
A`ÀbbYf`]a` `5`hYf`j`cb`` +`i`bX`` -` ð\`fYb`fi`a` Àb]gW`Yf`<`Yf`\_i`bZh
g]bX`i`bX`a`]h`XYa` `j`Yfgi`W`hYb`9]bVfi`W` `]b`5bfÒW`hY`]b
J`YfV]bXi b[ ` [YVfUW`h`k`YfXYb`_cbbhYb``C`V`k`c`\`VY]XY
ZYgh[Ybca`a`Yb`k`i`fXYbž`YbhgW`]YX`X]Y`GhUUhgUbk`U`hgW`UZh`bUW`
k`Y]hYfYb`9fa` ]h`i`b[ Ybž`g]Y`j`cf`Ài`Z[`k`]YXYf`ZfY]ni`UggYb`"

J`Yfgh`Àf`\_i`b[`XYf`G]W`Yf`\Y]hga`U»`bU`a`Yb`

8]Y`J`cfZ`À``Y`]b`5bfÒW`hY`j`YfXYi`h`]W`Yb`X]Y`Zcfhk`À`fYbXYb
<`YfUi`gZcfXYfi`b[ Ybž`XYbYb`g]W` `Y]bYfY` ;`Ya`Y]bXYb`]a` <`]bV`]W_
Ui`Z`9]bVfØW`Y`i`bX`?`f]a`]bU`]h`h`[`Y[YbØVYfgY`Yb``5i`W`k`Ybb`Yg
]b`X]YgYa`gdYn]Y``Yb` :`U``ni`\_Y]bYf`hUhg`ÀW`]W`Yb`9bhk`YbXi`b[
_Ua`ž`nY][`Yb`gc`W`Y`9fY][`b]ggY`X]Y`B`chk`YbX][`\_Y]hž`]b
\]bY]W`YbXY`G]W`Yf`\Y]hga`U»`bU`a`Yb`ni`]bj`Ygh]YfYb``8Yf`9]bgUhn
j`cb`a`cXYfbYb`,`VYfk`UW`i`b[ggmghYa`Yb`i`bX`X]Y
Ni`gUa`a`YbUfVY]h`a` ]h`XYb`Òfh]W`Yb`Dc`nY]VY`\`ÒfXYb`g]bX
YbhgW`Y]XYbXž`i`a`gc`W`Y`J`cfZ`À``Y`ni`j`Yf`\]bXYfb`"

8Yf`Y]bZUW`ni`YffY]W`YbXY`Ni` [Ub[`ni` :]fa`Yb[ Y`ÀbXYb`i`bX`X]Y
A`Ò[ `]W`\_Y]h`XYg`gW`bY``Yb`5VhfUbgdcfhg]j`cb`6Yi`hY`g]bX
ni`g`h`m`]W`Y`F`g]\_Ybž`X]Y`i`bhYfbY`a`Yb`]a` `6`]W`VY`\U`hYb`a`ØggYb`"
8]Y`9fY][`b]ggY`j`ca` :`fY]hU[UVYbX`i`bhYfghfY]W`Yb`X]Y`K`]W`h][`_Y]h
Y]bYg`k`UW`gUa`Yb`l`a` [ Ub[ g`gck`c`\`Xi`fW`l`bhYfbY`a`Yb`U`g`Ui`W`
Xi`fW`X]Y`Dc`nY]ž`i`a`X]Y`G]W`Yf`\Y]h]b`XYf`F`Y[ ]cb`ni
[Yk`À`f`Y]ghYb`"

ð`5bfÒW`hY`i`bX`l`a` [ YVi`b[`V`Y]Vh`X]Y`Dc`nY]`k`Y]hYf`\]b`Ui`Z`XYf
Gi`W`Y`bUW`k`Y]hYfYb`<`]bk`Y]gYb`ni`XYb`HÀhYfb`cXYf`a`Ò[`]W`Yb
?ca`d`]nYb`` :`Øf`XYb`ð`UVYf`XYg`5i`hc`\UbXY`g`]gh`X]Yg`Y]b
K`YW`fi`Zž`gY]bY`G]W`Yf`\Y]hga`U»`bU`a`Yb`ni`ØVYfdfØZYb`i`bX
[Y[YVYbYbZU`g`ni`j`Yfgh`Àf`_Yb``8]Y`HUhgUW`Yž`XUgg`X]Y`HÀhYf`bi`f
ZØf`\_i`fnY`NY]h]a` :`c`_i`g`k`UfYbž`nY][`hž`k`]Y`gW`bY``gc`W`Y`J`cfZ`À``Y`

[YgWXY\Yb`_ÖbbYb"

5i Zfi Z'ni f'K UWXgUa _Y]h

: Øf'X]Y`² ZZYbh]W\_X]h]gh'Yg'k ]W\_X]h[ ž'k UWXgUa`ni`V`Y]VYb`i bX
j YfXÅW_X]h[Y`5\_h]j ]HÅhYb`i a [Y\YbX`ni`a`Y`XYb`"8]Y`gW_Xb`Y`Y
FYU_h]cb`gck c`\`XYg`i bhYfbY\`a`Yfg`U`g`Ui W\_X`Yf`Dc`]nY]`]b
5bfÖW_Xh`\_ÖbbhY`]b`Ni`_i bZ`h`a`Ö[ `]W_X`Yf`k`Y]gY`Ub`XYfY`9]bVfØW_X`Y
j Yf\]bXYfb`cXYf`ni`a`]bXYgh`X]Y`HÅhYf`ni`f`J`Yf`Ub`hk`c`f`h`i`b[ `n]Y\Yb`"
X`XYg`i bhYfbY\`a`Yb`i bX`Y`XYf`6Øf[Yf`\_Ubb`ni`f`G]W_X`Yf\Y]h`gY]bYf
; Ya`Y]bXY`VY]hfU[Ybž`]bXYa`Yf`Ui`Za`Yf`_gUa`\_]gh`i`bX`X]Y
6Y\ÖfXYb`VY]j`YfXÅW_X]h[Yb`6Yc`VUW_X`h`i`b[ Yb`]bZc`fa`]Yfh"

5_hi Y`Y`? f]a]bU`]hÅhgYb`hk]W`\_i b[ `]b`XYf` F`Y[ `]cb

≠`XYb`Y`hnhYb`X\`fYb`]gh`Y]b`5bgh]Y[`XYf`9]bVfØW_X`Y`i`bX
j`Yf`gi`W\_X`hYb`9]bVfØW\_X`Y`]b`B`c`f`X`f`\Y]b`!`K`Y`gh`ZU`Yb`ž`]bg`VY`g`c`b`XYfY`]a
`Å`b`X`]W_X`Yb`F`Ui`a`ž`ni`VY`c`VUW\_X`hYb`"@`Ui`h`XYa`A`]b]ghYf]i`a`ZØf
≠`bYfYg`XYg`@`Ub`XYg`B`c`f`X`f`\Y]b`!`K`Y`gh`ZU`Yb`[`UV`Yg`]a`X\`f`&`\$`&&
]bg[YgUa`h`,`"`,`\$`\$`9]bVfØW\_X`Y`]a`[`Yk`YfV`]W\_X`Yb`i`bX`d`f]j`UhYb
6YfY]W_X`]a`F`Y[ `]Yf`i`b[`gVYn]f`_`5fbgVYf[ `"8]Yg`ghY`h`Y]bYb`5bgh]Y[
j`cb`%`&`i`]a`J`Yf[ `Y]W_X`ni`a`J`c`f`U`f`X`Uf`"8]Y`Dc`]nY]`\`Uh
j`Yf`gh`Å`f`\_`hY`,`VYf`k`UW_X`i`b[`ga`U»`bU\`a`Yb`i`bX
Df`Å`j`Yb`h]cb`g`_`Ua`dU[`bYb`X`i`f`W\_X[ `YZØ\`fhž`i`a`XYf`G]h`i`Uh]cb
Yb`h[ Y[ Yb`ni`k`]f`\_`Yb"

≠`gVY`g`c`b`XYfY`\`UVYb`g]W_X`X]Y`HÅhYf`ni`bY\`a`Yb`X`Ui`Z`_`Y]bY`i`bX
a`]hhY`gh`Å`b`X]gW\_X`Y`i`bhYfbY\`a`Yb`\_`c`b`n`Y`b`hf]Yfh`"8]YgY`9b`hk`]W`_i`b[
\`Uh`Ui`W\_X`X`Uni`[`YZØ\`fhž`X`Ugg`:]`fa`Yb]b\`UVYf`j`Yf`gh`Å`f`_`h]b
G]W_X`Yf\Y]h`ghY`W\_X`b]_`i`bX`,`VYf`k`UW_X`i`b[`gUb`U[Yb`]b]Y`gh]YfYbž`i`a
g]W_X`VY`gg`Yf`ni`g`W_X`Ø`h`n`Y`b`"9f\`Y`Vi`b[ Yb`nY][Ybž`X`Ugg`Ø`VYf`" )`i`XYf
6Yhf]YVY`]b`XYf`F`Y[`]cb`]b`XYb`Y`hnhYb`X\`fYb`]b`gc`W_X`Y
A`U»`bU\`a`Yb`]b]Y`gh]Yf`h`\`UVYb`ž`i`a`X`Ug`F`g]_`c`Y]bYg`9]bVf`i`W\_X`g`ni
a`]b]a`]YfYb"

F`Y`W_X`hg`U[`Y`i`bX`?`c`bg`Ye`i`Yb`n`Y`b

8]Y'fYWXh]WXYb'?'cbgYei YbnYb'Z0f'j Yfgi WXhYb'9]bVfi WX' _0bbYb
Z0f'X]Y'HAhYf'Yf\YV'jWX'gY]b" 'b'8Yi hgWX'UbX'g]Y\h'XUg
GhfUZ[YgYhnVi WX'fz'&&z'z'&' i bX'z'&((E' _UfY'GhfUZYb'Z0f'
j Yfgi WXhYb' i bX'j c''YbXYhYb'9]bVfi WX'X]YVghU\''j cf''8Yf
j Yfgi WXhY'9]bVfi WX' _Ubb'a]h': fY]\Y]hgghfUZYb'j cb'V]g'ni ') '5\ fYb
VYghfUZ'hk YfXYbž']b'gWk YfYb': A''Yb'gc [Uf'a]h'V]g'ni '%\$'5\ fYb"
8]Y'; Yf]WXhY'n]Y\Yb'XUVY']j YfgWX]YXYbY': U_hcfYb']b'6YhfUWXhž
k]Y'ni a' '6Y]gd]Y''X]Y'GWk YfY'XYf'HUhi bX'XUg'J cf\UbXYbgY]b
j cb'J cfghfUZYb"

⇒ a : U''Y'XYf'VY]XYb'ZYgh[Ybca a YbYb'A ÀbbYf'Ui g'Fi a Àb]Yb
_0bbhY'Yg'i bhYf'I a ghÀbXYb'Ui WX'ni '9fa]h'i b[Yb'k Y[Yb
[fYbn0VYfgWfY]hYbXYf'?f]a]bU'h'Àh'_ca a Ybž'ni a U''j Yfa Y\fh
_f]a]bY''Y'c f[Ub]gUh]cbYb'Ui g'XYa '5i g'UbX']b'gc'WX'Yb'8Y']_hYb
]bj c'j]Yfh'g]bX" '8]Y'Ni gUa a YbUfVY]h'nk]gWX'Yb'XYb'XYi hgWX'Yb
i bX'fi a Àb]gWX'Yb'6Y\0fXYb'gd]Y'h'\]YfVY]'Y]bY'Yb hgWX'Y]XYbXY
F c''Y"

DfÀj Ybh]cb' i bX'G]WX'Yf\Y]hghYWX'b]_

I a 'I bhYfbY\ a Yb'j cf'9]bVf0WX'Yb'ni 'gWX'0hnYbž'gYhnYb'j]Y'Y
; YgWÀZh]b\UVYf'Ui Z'a cXYfbY'G]WX'Yf\Y]hghYWX'b]_ "A Y\ fYfY
Ghi X]Yb'\UVYb' [YnY][hž'XUgg'XYf'9]bgUhn'j cb'5'Ufa Ub'U[Ybž
J]XYc0VYfk UWX'i b['i bX'\cWX'k Yfh][Yb'GW'0ggYfb'XUg'F]g]_c
Y]bYg'9]bVfi WX'g'Yf\YV'jWX'g]b_Yb' _Ubb" '@Ui h'Y]bYf'I bhYfgi WX'i b[
XYf'Dc']nY']WX'Yb'?'f]a]bU'dfÀj Ybh]cb'j cb'6i bX'i bX'@ÀbXYfb
fDfcD? E'Z0\ 'Yb'g]WX', \$'i 'XYf'6YZfU[hYb'g]WX'YfYfž'k Ybb'g]Y']b
G]WX'Yf\Y]hga U» bU\ a Yb']bj Ygh]Yfh'\UVYb"

Ni gÀhn']WX'gd]Y'Yb']b'j]Y'Yb'F Y[]cbYb'Ui WX
BUWX'VUfgWUZh'gk UWX'Yb'Y]bY'k]WX'h][Y'F c''Y" '8]YgY
V0f[YfgWUZh]WX'Yb' 'b]h]Uh]j Yb'Z0fXYfb'XUg'[Ya Y]bgWUZh]WX'Y
G]WX'Yf\Y]hg[YZ0\ ''i bX'Yfa 0['jWX'Yb'Yg'XYb'5bk c\ bYfbž'U_h]j 'Ui Z
j YfXÀWX'h][Y'5_h]j]hÀhYb'\]bni k Y]gYb" 'GhUh]gh]_Yb'nY][Ybž'XUgg']b
K c\ b[YV]YhYb'a]h'U_h]j Yb'BUWX'VUfgWUZh'gk UWX'Yb'X]Y
9]bVfi WX'gnU\ 'Yb'g][b]Z'_Ubh'[YgYb_h'k YfXYb' _cbbhYb"

6Ygi W\Yb`G]Y`i bg`Ui Z.`X]Y!bUW\ f]W\ hYb"bYh