

8]Y`F Y]gYž`X]Y`a]Wk`j YfÅbXYfh`\Uh.`@chh]Y
; fcgg

Jca`[f0» hYb`A mh\cg`XYf`F Y]gY`hYfUhi`f`V]g`ni a`HfUi`a`n]Y`ž
XUg`g]Y`bcWk`b]Wk`h[YgY`Yb`\Uhž`YfnÅ`\`h`5i`hcf]b`@chh]Y
; fcgg`j`cb`XYb`F Y]gYbž`X]Y`g]Y`j`YfÅbXYfh`\UVYb`@chh]Y`;
fcgg`
]gh`Y]b`Y`j`]Y`VYgWk`ÅZh][hY`:`fUi`"5`g`F Y]gYgWk`f]ZhghY`Yf]bž
5i`hcf]bž`F YXbYf]b`i`bX`:`f0bXYf]b`XYg`VY`YVhYb`BYk`g`YhYfg
HU`_]b[`HfUj`Y`K`f]h]b[`\Uh`g]Y`Y]bYb`Xi`fWk`i`bX`Xi`fWk
Ybha`i`h][YbXYb`NY]hd`Ub`UVYf`XUg`]gh`_Ui`a`bYi`"BcWk`j`cf
]\fYa`5VgWk`i`gg`\UhhY`@chh]Y`Z0f`BUh]cbU`:`Yc[fUd`\]W
HfUj`Y`Yf`[YgWk`f]YVYbž`Y]bYb`?i`fnZ]a`0VYf`XUg`:`fUi`YbXcfZ
I`a`c`U]b`?Yb]U`dfcXi`n]Yfhi`bX`g]Wk`Y]bYb`VY[Y`fhYb`æV
VY]a`F Y]gYj`Yf`U[`Fci`[`\`:`i`]XYg`[Yg]Wk`Yfh"@chhY`:`fc»
@chh]Y`:`fcggž`5i`hcf]b`j`cb`8c[!:`f]YbX`miK`YY`_YbXg`GY]hXYa
\Uh`@chh]Y`i`bhYf`UbXYfYa`/`Ua`d`^Y`d/

Jca`[f0» hYb`A mh\cg`XYf`F Y]gY`hYfUhi`f`V]g`ni a`HfUi`a`n]Y`ž`XUg
g]Y`bcWk`b]Wk`h[YgY`Yb`\Uhž`YfnÅ`\`h`5i`hcf]b`@chh]Y`;
fcgg`j`cb`XYb`F Y]gYbž`X]Y`g]Y`j`YfÅbXYfh`\UVYb`

@chh]Y`:`fcgg`]gh`Y]b`Y`j`]Y`VYgWk`ÅZh][hY`:`fUi`"5`g`
F Y]gYgWk`f]ZhghY`Yf]bž`5i`hcf]bž`F YXbYf]b`i`bX`:`f0bXYf]b`XYg
VY`YVhYb`BYk`g`YhYfg`HU`_]b[`HfUj`Y`K`f]h]b[`\Uh`g]Y`Y]bYb`Xi`fWk
i`bX`Xi`fWk`Ybha`i`h][YbXYb`NY]hd`Ub`UVYf`XUg`]gh`_Ui`a`bYi`"

BcWk`j`cf]`\fYa`5VgWk`i`gg`\UhhY`@chh]Y`Z0f`BUh]cbU`:`Yc[fUd`\]W
HfUj`Y`Yf`[YgWk`f]YVYbž`Y]bYb`?i`fnZ]a`0VYf`XUg`:`fUi`YbXcfZ
I`a`c`U]b`?Yb]U`dfcXi`n]Yfhi`bX`g]Wk`Y]bYb`VY[Y`fhYb`æV`VY]a
F Y]gYj`Yf`U[`Fci`[`\`:`i`]XYg`[Yg]Wk`Yfh"

@chhY`:`fc»`@chh]Y`:`fcggž`5i`hcf]b`j`cb`8c[!:`f]YbX`miK`YY`_YbXg

GY]hXYa \Uh@c]h]Y'i bhYf'UbXYfYa 'ZØf'H\Y'H]a Ygž'H\Y'Gi bXUm
H]a Ygž'H\Y'HY'Y[fUd\ž'H\Y'ϕXYdYbXYbhi bX'h\Y'] [YgWf]YVYb"
G]Y'\Uh'k Yb][Yf'VYhfYhYbY'@AbXYf'k]Y'ÿh\]cd]Yb'i bX'5'VUb]Yb
VYfY]ghi bX'k i fXY'ni f'Mci b['HfUj Y'K f]hYf'cZ'h\Y'M'Uf'&\$&%
[Y_Øfh"

B UWXYa 'g]Y'ni 'a Y\fyfYb'F Uh[YVYfb'i bX'? UZZYH]gW h]hY'b
VY][YhfU[Yb'\Uhž'\Uh'g]Y'bi b'\f'Y][YbYg'6i W'j YfZUggh
<i bXYZfYi bX']WXY'K cWXYbYbXYb.) \$'DUi gYb'j]b'; fc» Vf]hUbb]Yb
ZØf'G]Y'i bX'≠fYb'<i bX"

<]Yf'YfnÅ'h'g]Y'i bgž'k Ufi a 'g]Y'X]YgYg'6i W' [YgWf]YVYb'\Uhž'k]Y
]\f'F Y]gYb'g]Y'j YfÅbXYfh'\UVYb'i bX'k]Y'g]Y'Yg' [YgW UZh'\Uhž']b
gc'_i fnYf'NY]h'gc'j]Y'ni 'YffY]WYb"

5'g'YfZU\fybYf'F Y]gYgWf]ZhghY''Yfž'k Ug'j]gh'≠fYf'A Y]bi b[
b UW'XYf' [fØ» hY'A mh\cg'ja '6YfY]W'XYg'F Y]gYgWfY]VYbg3

8 Ugg'a Ub'ZØfg'F Y]gYb'VYnU\h'k]fX''8Yf'Y][Ybh]WXY'F Y]gYhY]
a Y]bYf'5fVY]h'gh]a 'K YgYbh]WXYb'i bVYnU\h']W'k i fXY'gY'hYb
ZØf'X]Y'NY]h'YbhgW'ÅX][hž'X]Y'W' i bhYfk Y[g'j YfVfUW'h'\UVY"
GhUhhXYggYb'k YfXY'W'ZØf'X]Y'K ØfhYf'VYnU\hž'X]Y'W'\]bhYf\Yf
gWfY]VYž'k Ug'VYXYi hYhž'XUgg'W'a]h'Y]bYf'%'\$!hÅ[] [Yb'F Y]gY
a UbW'a U'bi f'&\$ \$'v'Y]bVf]b[Yb'_Ubbž'k Ybb'W'DYW'\UVY''≠W
Vf]b[Y'Yg'UVYf'ni a '@Uj ZYb''9g'[Y\h'XUfi a ž'j cb'YXYf'F Y]gY'gc
j]Y'Y'5i ZhfÅ[Y'i bX'5i ZhfÅ[Y'ni 'gUa a Y'bž'XUgg'g]W'X]Y'NY]hž'X]Y
a Ub'Xcfh]j YfVfUW'h'\Uhž'Z]bUbn]Y''c\bh"

8i '\Ugh'Y]bYb'HfUi a ^cV''? ØbbYb'G]Y'g]W'Ub'Y]bYb
Y]bn][Yb'; 'ØW_gZU''Yf]bbYfb'cXYf'k Uf'Yg'Ub[gUa 'i bX
ghYh][3

≠W'k i gghY'gW'cb'ja a Yfž'XUgg'W'∞ci fbU'j]gh]b'k YfXYb'k c'hY'i bX
XUgg'F Y]gYb'Y]b' [fc» Yf'HY]'a Y]bYf'5fVY]h'gY]b'gc''hYž'U'gc
UfVY]hYhY'W'\Ufhž'i a 'g]WYfni ghY''Ybž'XUgg'U''Ygž'k Ug'W'hUhž
a]W'ni 'Y]bYf'? Uff]YfY'U'g'5i hcf]b'i bX'U'g'F Y]gYbXYf'ZØ\fyb
cbbhY''≠W'bY\ a Y'Ubž'Y]b' ['ØW]WYf'A ca Ybh'k Ufž'U'g'F ci [\
; i]XYg'ni f' ['Y]WXYb'NY]hž'U'g]W'a Y]bYb'5VgW'i gg'j]b

æi fbU`]ga i g'a UW hYž'Y]bY`C b`]bY!F YXU_h]c b gUgg]ghY b h]b`Ui Z
9]bgh]Y[gb]j YUi `gi W hYž'UVYf`U`Yg`XUbUW`k i fXY`k]f_]W`Xi fW
\UfhY`5fVY]h`[Yk cbbYb"

@ch]Y`k i fXY`]b`]\fYa`æV`VY]`Fci [\`; i]XYg`j cf[YghY`h

æW` \UVY`a Y]bY`5fVY]h`k Å\fybX`a Y]bYg`Ghi X]i a g`Ui Z
]bhYfbUh]cbU`Y`6Yf]W hYfghUhh` b[`i bX`F Y]gY`]hYfUhi f`Ui g[Yf]W hYhž
]W` \UVY` \Ufh`Ub`a Y]bYf`6Yk Yfvi b[`VY]`Fci [\`; i]XYg
[YUfVY]hYh`i bX`a]W` gc`[i h`k]Y`a Ò[`]W`a]h`F Y]gYUi hc fYb
j YfbYhnhž`VYj cf`]W`X]Y`i b]j Yfg]h`h`UV[YgW`cggYb` \UVY`"8 Ug
U`Yg` \U`Za]fž`X]YgY`F c`Y`VY]`a Y]bYa` @]YV`]b[gfY]gYj Yf`U[`ni
VY_ca a Ybž`i bX`j cb`Xcfh`Ui g`VY[Ubb`]W`ž`Y]bY`?Uff]Yfy
Ui Zni VUi Ybž`]bXYa`]W`a]W`k Y]hYf`j YfbYhnhYž`gc`j]Y`
J YfUbhk cfhi b[`k]Y`a Ò[`]W`VY]`XYf`5fVY]h`ØVYfbU`a` i bX`j cb
YfZU`fYbYb`F YXU`hYi fYb`]b`XYf`6fUbW`Y`YfbhY`i bX`]`bYb
ni \ØfhY"

8i `V]gh]j]Y`U`Y]bY`[YfY]gh`? ÒbbYb`G]Y`g]W`Ub` \UUf][Y
A ca YbhY`Yf]bbYfb3

æW`k Uf`i bhYfk Y[g`]a a Yf`gY`f`[`ØW`]W`i bX` \UVY`b]W`h`U`ni
j]Y`Y`?UhUghfcd`Yb`Yf`YVhž`UVYf`]b`Y`h`]cd]Yb` \UhhY`]W`Y]bYb
a Y]bYf`[fi gY`][ghYb`A ca YbhY"

æW`k Uf`j]YfnY`b`HU[Y`Ub[`c`bY`GW`i W`Ui Z`U`Y]b`Xi fW`XUg
@UbX`[YfY]ghž`V]g`]W`]b`6U`]f`8 Uf`Ub`Ua ž`i a`a]W`j cf`XYa
`Ub[Yb`<Y]a Zi [`Y]b`dUUf`HU[Y`Ub`Y]bYa`GY`ni`YbhgdUbbYb`"æW
\UhhY`a]W`Ua`?U]`bUW`6cc`hgZU`fhYb`ni`Y]bYa``b`gY`_`cghYf
Yf`i bX][hž`UVYf`gd`hYf`YbhgW`]YXYbž`XUgg`]W`Ui ggW`UZYb`k ØfXYž
UbghUhh`ZØf`X]Y`5VZU`fh`i a` , `I` \f`a cf[Ybg`Ui Zni ghY`Yb"

A UfW`6U`]b`#G`i hhYfghc`W`_@U`Y`HUbU`j cb`6U`]f`8 Ufž`Y`h`]cd]Yb

⇒X j YfVfUW hY`XYb`HU[`XUa]hž`a]hY]bYa `bYi Yb` : fYi bXž`XYb`]W
]a `6i g`_YbbYb[Y`Yfbh`UhhYž`]b`Y]bYa `Hi _!Hi _`Yfi a ni ZU`fYbž
i bX`XUbb`gU» Yb`k]f`]b`XYf`< chY`cVVMž`hfUb`_Yb`6]Yf`i bX`gU`Yb
i bg`Àh`]cd]gW`Y`GY]ZYbcdYfb`Ub`"8 Yf`A Ubbž`XYf`X]Y`6cchgZU`fhYb
`Y]hYhYž`ghØfa hY`]b`X]YgYf`BUW`h]b`a Y]bY`< chY`cVVMi bX`_Ua
X]fY`_h`Ui Z`a]W`ni ž`bU`a`a]f`XUg`6]Yf`Ui g`XYf`< UbX`i bX`Xfc`hYž
Yg`ni`nYfgW`U[Yb`i bX`a]W`ni`j Yf`YhnYbž`k Ybb`]W`]`a`b]W`h
, \$\$`6]ff`[YVY`"9f`k Uf`VYhfi b`_Ybž`\\][`j`cb`7`UhfY]b`_Ui VUfYg
Gh]a i`Ubgl`i bX`UVgc`i h`k ØhYbX`"

7`Ucg`YbhghUbXž`U`g`XYf`G]W`Yf`Y]hga`Ubb`XYg`< chY`g`YfY]b`_Ua
i bX`gY]b`5? (+`Ui Z`XYb`A Ubb`f]W`hYhYž`i bX`X]Y`[YgUa`hY`6Uf`]b
X]Y`GW`À[YfY]j Yfk]W`_Y`h`k i fXY`"⇒X`]Y»`a Y]bY` , \$\$`6]ff`Ui Z`XYa
H]gW`]Y[Yb`i bX`gW`]W`a]W`Y]gY`\\]bUi gž`k`À`fYbX`g]Y`U`Y
XUfØVYf`ghf]hYbž`i bX`]W`gU»`ZØf`XYb`F Ygh`XYf`BUW`h`V]g`ni
a Y]bYf`6i gUVZU`fhi a`)`i`f`k UW`ž`Ui g`5b[ghž`Yf`k ØfXY`a`Y`f
`c`Yb`"

? ØbbYb`G]Y`i bg`Yhk Ug`d`cg]h]j YfYg`ØVYf`X]Y`F`Y]gY
Yfn`À`Ybž`X]Y`G]Y`j Yf`À`bXYfh`U`h3

5`g`]W``&%`k Ufž`j YfVfUW`hY`]W`XfY]`A`cbU`hY`]b`?`Yb]U``hY]`g`gd]Y`hY
]W`Hci`f]gh]bž`hY]`g`UfVY]hYhY`]W`Ub`a`Y]bYf`5VgW`i`ggUfVY]h`ZØf
X]Y`i`b]j Yfg]h`Àh`"9g`k UfYb`k`c`X]Y`UVYbhYi`Yf`]W`ghYb`XfY]`A`cbU`hY
a`Y]bYg`@YVYbg`"⇒X`fY]ghY`j`Ø`][`i`bUV`À`b[][ž`bU`a`a`Y]bY`A`i`hYf
a`]h`XYa`BUW`hni`[`j`cb`BU]fcV]`bUW`A`ca`VUgU`i`bX`XUbb`Ui`Z]`fY
U`YfYfghY`GUZUf]"BUW`XYa`g]Y`bUW`<`Ui`gY`[`YZc[`Yb`k`Ufž
j`YfVfUW`hY`]W`nk`Y]`A`cbU`hY`d`Yf`5b`U`hYf`j`cb`XYf`<`Ui`d`hghUX`h`V]g
ni`f`;`fYbnY`ni`Y`h`]cd]Ybž`k`c`]W`a`Y]bYb`i`b]j`Yfg]h`ÀhgZ]`a`XfY`hY`
Y]bY`Ghi`X]Y`ØVYf`fY]b`k`Y]V`]W`Y`;`Ya`Y]bgW`UZhYb`Ui`Z`XYf`[`Ubnyb
K`Y`h`i`bX`ØVYf`Y]bY`Yff`]W`UV[`Y`Y[`YbY`;`Y[`YbX`bUa`Ybg`@`U`_Y
Hi`f`_UbU`k`]YXYf`ni`fØW`_"

@chh]Yg`i`b]j`Yfg]h`ÀhgZ]`a`ØVYf`X]Y` :`fUi`Yb`j`cb`i`a`c`U

⇒X`k`Uf`bcW`b]Y`Ub`Y]bYa`gc`UV[`Y`Y[`YbYbž`hfcW`_YbYb`i`bX`fUi`Yb
C`fh[`Yk`YgYbž`i`bX`]W`k`Uf`bcW`b]Y`Ui`»`Yf`U`V`XYf`;`fYbnYb
hfUX]h]cbY`Yf`j`Yf`_Y`fga`]hY`[`YfY]gh`"8`U`Yg`_Y]bY`GhfU»`Y`ni`a

: U\fyb[UVž[UV`Yg_Y]bY`6i ggY`ni`XYb`N]Y`Ybž`X]Y`k`]f`ni
YffY]WYb`j`Yfgi`W`hYbž`U`gc`Z` \fyb`k`]f`ghU`h`X`Y`gg`Y`b`a`]h`Y`]b`Yf
<YVYVØ\`b`Y`Ui`Z`@Ughk`U[`Yb`j`c`Yf`i`B`!`F`Y`]g`!`i`b`X`6`c`b`Y`bg`Å`W`_`Y`
c`X`Y`f`e`i`Y`hg`W`h`Y`b`i`bg`Ui`Z`X`]Y`@`U`X`Y`Z`Å`W`_`Y`j`cb`5i`hc`gž`X`]Y`
A`]gg`]cb`U`f`Y`b`i`b`X`A`]gg`]cb`U`f`Y`b`[`Y` \`Ö`f`h`Y`b`<`]Zg`_`f`Å`Z`h`Y`ž`i`a` `X`c`f`h` \]b`ni`
[`Y`U`b`[`Y`b`ž`k`c`k`]f` \]b`a`i`gg`h`Y`b`" `G`c`_`U`a`Y`b`U`Y`]a` `B`c`f`X`Y`b`ni`f`Y`W`h`"
K`]f`h`f`U`Z`Y`b`U`Y`a` Ò[`]W`Y`b`i`b`[`Ui`V`]W`Y`b`A`Y`bg`W`Y`b`]a` `B`c`f`X`Y`b`
?`Y`b`]U`g`i` `B`c`b`b`Y`b`ž`Y`f`h`Y`ž`i`f`Ui`Y`b`f`Y`W`h`Y`f`]b`b`Y`b`i`b`X` `c`_`U`Y` `@`Y` \`f`Y`f`ž`
a`]h`X`Y`b`Y`b`]W`h`Y`]`k`Y`]g`Y`b`c`W` \`Y`i`h`Y`]b`?`c`b`h`U`_`h`g`h`Y` \`Y` `i`b`X`
Y`f`Y`V`h`Y`b`i`U`gh`Z`F`Y`i`b`X`g`W`U`Z`h`k`]Y`b`]f`[`Y`b`X`k`c`g`c`b`g`h`" <]Y`f` \`U`V`Y`]W`
k`]f`_]W`X`Y`]:`f`Y`i`b`X`]W`_`Y`]h`j`cb`i`f`Y`a`X`Y`b`[`Y`Y`f`b`h`"

A`c`]n`i`<`i`g`Y`]b`i`Y`g`W`]W`h`Y`b`Y`f`n`Å` \`Y`f`#`G` \`i`h`h`Y`f`g`h`c`W`_`F`U`i`Y`
6`Y`X`]b`[`i`b`[`Y`b`U`a` `@`U`_`Y`H`i`f`_`U`b`U`

≠W`V`]W`_`Y`Y`h`h`i`a`]h`b`]W`h`g`U`g`[`i`h`Y`b`9`f`]b`b`Y`f`i`b`[`Y`b`X`U`f`U`i`Z`ni`f`Ø`W`_`ž`
U`V`Y`f`]W`_`Y`f`]b`b`Y`f`Y`a`]W`_`U`i`W`_`ž`X`U`gg`]W`_`a`U`b`W`a`U`5`b`[`g`h` \`U`h`h`"
K`]f`k`U`f`Y`b`n`k`Y`]`↑`b`[`Y`i`f`Ui`Y`b` `Y`]b`Y`V`Y`Z`F`Y`i`b`X`Y`h`Y`5`b`h`f`c`d`c`c`[`]b`
i`b`X`]W`_`ž`X`Y`U`Y`]b`]b`Y`]b`Y`f`i`b`[`Ui`V`]W`_`U`V`[`Y`Y`[`Y`b`Y`b`F`Y`[`]cb`
i`b`h`Y`f`k`Y`[`g`k`U`f`Y`b`" `≠`Y`]b`[`Y`b`X`Y`f`i`Y`V`]Y`h`Y`ž`X`Y`k`]f`V`Y`g`i`W`h`Y`b`ž`
`U`a` `Y`g`]a` `Ni`g`U`a`a`Y`b` \`U`b`[`a`]h`X`Y`a` `6`Ø`f`[`Y`f``f`]Y`[`]b`G`c`a`U`]U`
k`Y`]h`Y`f`b`Ø`f`X`]W`_`ni`f`Y`[`Y`a` Å»][`Y`b`i`Y` \`X`Y`b`n`k`]g`W`Y`b`
f`]j`U`]g`]Y`f`Y`b`X`Y`b`i`U`f`a`Y`f`b`a`]h`G`W`i`gg`k`U`Z`Y`b`i`b`X`[`Y`Y`[`Y`b`h`]W`Y`b`
H`Y`f`f`c`f`U`b`g`W`_`Å`[`Y`b`" `≠`W`_`X`Y`b`_`Y`c`Z`h`U`b`X`Y` `@`U`gh`ž`X`Y`k`]f`X`Y`b`
A`Y`bg`W`Y`b`U`i`Z`i`bg`Y`f`Y`f`F`Y`]g`Y`b`U`W`_`B`c`f`X`Y`b`U`i`Z`Y`f`Y`[`h` \`U`V`Y`b`_`X`]Y`
:`f`Ui`ž`X`Y`i`bg`V`Y`]` \`f`Y`b`<`Ø` \`b`Y`f`b`i`b`X`N`]Y`[`Y`b`g`W`_`U`Z`Y`b` `]Y`»`ž`U`g`k`]f`
i`a` `&`!` \`f`a`c`f`[`Y`bg`]b`] \`f`Y`a` `8`c`f`Z`U`b`_`U`a`Y`b`i`b`X`_`Y`]b`Y`6`Y`]V`Y`
 \`U`h`h`Y`b`ž`X`Y`f`i`b`[`Y`ž`X`Y`f`i`bg`ni`a` `A`]h`h`U`[`Y`gg`Y`b`ni`g`]W`_`b`U`W`_`<`U`i`g`Y`
V`f`U`W`h`Y`h`f`U`Z`g`Y`]b`Y`A`i`h`h`Y`f`i`b`X`Z`Ø` \`f`h`Y`i`bg`X`i`f`W`_`g`Y`]b`8`c`f`Z`"

8`]Y`g`Y`F`Y`]g`Y` \`U`h`i`a`]W`_`j`Y`f`Å`b`X`Y`f`h`ž`k`Y`]`g`]Y`a`]W`_`X`U`ni`[`Y`V`f`U`W`h` \`U`h`ž`
k`]f`_]W`_`Ø`V`Y`f`a`Y`]b`Y`b`9`]b`Z`i`gg`U`i`Z`Y`]b`F`Y`]g`Y`n`]Y` `b`U`W`ni`X`Y`b`_`Y`b`"
B`]W`h`i`b`V`Y`X`]b`[`h`X`Y`5`i`g`k`]f`_i`b`[`Y`b`U`i`Z`X`Y`i`a`k`Y`h`ž`g`c`b`X`Y`f`b`X`]Y`
5`i`g`k`]f`_i`b`[`Y`b`a`Y`]b`Y`f`5`b`k`Y`g`Y`b` \`Y`]h`i`b`X`k`]Y`j`]Y` `]W`_`j`cb`Y`]b`Y`a`
C`f`h`b`Y` \`a`Y`]a` `J`Y`f`[`Y`]W`_`ni` `X`Y`a`ž`k`U`g`]W`_`ni`f`Ø`W`_`[`Y`V`Y`" `≠`W`_`X`Y`b`_`Y`
i`b`X` \`c`Z`Y`ž`X`U`gg`Y`g`a`]W`_`ni` `Y`]b`Y`a` `j`Y`f`U`b`h`k`c`f`h`i`b`[`g`j`c`Y`f`Y`b`i`b`X`
f`Y`g`d`Y`_`h`j`c`Y`f`Y`b`F`Y`]g`Y`b`X`Y`b`[`Y`a`U`W`h` \`U`h`"

9fnÅ\`Yb`G]Y`i bg`j cb`≠fYa`bYi Yb`6i W

8c[!: f]YbX`miK YY_YbXg`]gh`Y]b`i bj Yfn]W hVUfYf`@Y]hZUXYb`ZØf
FY]gYb`a`]h`≠fYa`<i bX`]b` ; fc» Vf]hUbb]Yb`"9g`k i fXY`k Y]h[Y\YbX
j cb`XYb`FY]gYb`]bgd]f]Yfhž`X]Y`]W`a`]h`a`Y]bYa`ij Yfghc`fVYbYb
A UbW`YghYf`HYff]Yfž`A`]cž`i bhYfbca`a`Yb`\UVY`"K`]f`\UVYb`U`Yg
Yf_`i bXYhž`j ca`GhUXhnYbhf`i a`ij cb`@]bWc`b`V]g`ni`XYb`GW`m`b`gY`b
]b`7cfbk U`ž`i bX`Yf`\Uh`k Å\`fYbX`i bgYfYf`5VYbhYi Yf`a`]h`a`]f`]b
Y]b][Yb`XYf`gW`]W_ghYb`<chY`g` ; fc» Vf]hUbb]Yb`g`Y]b[YW`YW`h`

@chY` ; fc» `9g`]gh`Y]b`<i bXY`YVYb

9g`k Uf`Y]bY`k U\`fY` : fYi XYž`a`]h`]\a`ni`fY]gYb`fba`Y]ghYbgŁž`UVYf`Yg
[UV`A`ca`YbhYž`]b`XYbYb`]W`a`Yf`hYž`XUgg`b]W`h`U`Y
`i bXYZfYi bX`]W`Yb`<chY`g`k`]f`_]W`gc`ZfYi bX`]W`ni`<i bXYb
g]bX`"G]Y`k UfYb`i bXYhc`YfUbhž`UVYf`g]W`Yf`]W`b]W`h
ØVYf[`ØW`_]W`ž`≠f`<Ui gh]Yf`Ub`≠fYf`GY]hY`ni`gY\Ybž`i bX`j`]Y`Y
\UhYb`"ÅW`Yf`]W`Y`FY[Y`b`k`]Y`_Y]b`6Y`Yb`i bX`_Y]bY`DZchYb
Ui ZXYb`A`ØVY`bž`gY`Vgh`k`Ybb`g]Y`U`Y]bY`]a`F`Ui`a`g]bX`f]W`\UVY
Yg`b]Y`[Ya`Y]ghYfh`hY`YdUh\]gW`Y`8]gn]d`]bŁ`"

@chY` ; fc» `8c[!: f]YbX`miK YY_YbXg`hfYbbh`i bXYhc`YfUbhY`C`fhY
j cb`k`]f`_]W`i bXYZfYi bX`]W`Yb`C`fhYb

≠W`k Uf`Ui`W`Zfi`ghf]Yfh`ØVYf`XYb`A`Ub[Y`Ub`bØh`]W`Yb`b`U`hYb
ØVYf`i bXYZfYi bX`]W`Yg`FY]gYb`]b` ; fc» Vf]hUbb]Yb`"9g`[]Vh`j`]Y`
ØVYf`GdUn]Yf[Åb[Yž`?bY]dYb`i bX`<chY`gž`UVYf`gY\`f`k`Yb][`ØVYf
hUhgÅW`]W`Y`5_h]j`]hÅhYbž`j`cb`A`i`gYYbž`X]Y`G]Y`a`]h`XYa`<i bX
VYgi`W`Yb`_ØbbYbž`V]g`\]b`ni`9f`YVb]ggYb`i bX`Hci`fYbž`X]Y`G]Y`ZØf

X]Y`[UbnY` : Ua]`jY`Vi W\Yb`_ÖbbYb"8Yg\U`V`UVY`jW`X]YgYg`6i W
ni gUa a Yb[YghY`h"9g`Ybh\À`h) \$`K`cW\YbYbXYb`]b`[Ubn
; fc» Vf]hUbb]Ybž`YXYf`Cfh`k`i`fXY`Ui`Z[fi`bX`gY]bYf
<i`bXYZfYi`bX`]W`_Y]h`Ui`g[Yk`À`hž`a`]h`≠YYb`ZØf`8]b[Yž`X]Y`G]Y`a`]h
≠fYa`' <i`bX`hi`b`_ÖbbYbž`X]Y`ØVYf`9ggYbž`GW`UZYbž`Hf]b`_Yb`i`bX
; Ugg][Y\Yb`\]bUi`g[Y\Yb"

K`Ug`]gh`XUg` , VYffUgW\YbXghYž`XUg`G]Y`k`À`fYbX`≠fYf
F`YW`YfW`Y`[Y`Yfb`h`\UVYb`3

≠W`k`Uf`k`]f`_]W`_ØVYffUgW`hž`k`]Y`j`]Y`U`hY` ; YgW`]W`hY`HY]`i`bgYfYf
@UbXgW`UZh]b` ; fc» Vf]hUbb]Yb`]gh"9g`k`Uf`]b`8Ufha`ccfž`k`c`]W
j`Ö`][` \`m`d`b`c`h]g]Yfh`k`Ufž`U`g`]W`nk`]gW`Yb`XYb`GhY]bYfY`\Yb`j`cb
A`Yff]j`U`Y`gdUn]YfhYž`X]Y`bcW`\Yi`hY`Y]b`F`ÀhgY`g]bXž`XU`k`]f`_Y]bY
_cb`_fYhY`J`cfghY`i`b[`XUj`cb`\UVYbž`k`Ug`g]Y`VYXYi`hYb`cXYf`k`cZØf
g]Y`j`Yfk`YbXYh`k`cfXYb`gY]b`_ÖbbhYb"J`]Y`Y]W`h`g]bX`g]Y`Y]bY
; fUVgh`À`hY`cXYf`Y]bY`nYfYa`cb]Y`Y`?`cbghfi`_h]cb"K`Yf`k`Y`»`3

@chY` ; fc» `@ch]Y`i`bX`]\f`<i`bX`j`cb`6Y`Yj`Yf`Hcf

≠W`ghUbX`]b`F`i`bX`\Ài`gYfb`Ui`g`XYf`6fcbnYnY]h`Ub`XYb`<`Àb[`Yb`XYg

bU\Y`[Y`Y[YbYb`6Y`Yj Yf`Hcfz`i bX`]b`XYb`G\ fcdg\]fY`<]`g`[]b[]W\`Ui Z`<Ø[Y`ZYghi b[Yb`Ui g`XYf`9]gYbnY]h`a`]h`Ui g[YdfÅ[hYb ; fÅVYbž`X]Y`Y]bgh`\`fY`6YZYgh][i b[Yb`V]`XYhYbž`X]Y`Y]bY`[fØbYž \Ø[Y`][Y`@UbXgW\UZh`ØVYfV`]W_hYb"

K Ug`]W\`Ub`XYf`U`hYb` ; YgW\]W\hY` ; fc» Vf]hUbb]Ybg`]]YVYž`]ghž`XUgg g]Y`ØVYfU``]ghž`UVYf`k Ybb`a` Ub`b]W\h`k Y]» ž`k cbUW\`a` Ub`gi W\Yb gc`ž`]gh`g]Y`b]f[YbXk c`"A`]h`XYa` `f]W\h][Yb`5i [Y`cXYf`XYa f]W\h][Yb` : Ø\`fYf`Z]bXYb`G]Y`YXcW\`ØVYfU``]b`X]YgYa` @UbX 6Yk Y]gY`ZØf`i bgYfY`j Yf[Ub[YbYb`N]j`]]gUh]cbYb`"9g`]gh`UVgc`i`h ZUgn]b]YfYbX"

< UVYb`G]Y`bcW\`Y]b`HfUi`a`n]Y`ž`XUg`G]Y`bcW\`b]W\h [YgY\Yb` \ UVYb3

Gc`j`]Y`Y`"≠W\` \ UVY`X]Y`C VYfZÅW\`Y`X]YgYf`9fXY`_Ui`a` `VYfØ\`fhž`U`gc []Vh`Yg`<i` bXYfhY`j`cb`C`fhYbž`X]Y`]W\`[YfbY`VYgi`W\Yb`k`ØfXYž`UVYf]b`Y`hnhYf`NY]h`\UVY`]W\`a`]W\`]b`I`gVY_]ghUb`j`Yf`]YVh`"≠W\`]]YVY K ØghYb`i`bX`6Yf[Y`i`bX`]W\` \ UVY`[Y\`Øfhž`XUgg`X]YgYg nYbhfU`Ug]Uh]gW\`Y`@UbX`j`cb`VY]XYa`fY]W\`]W\` \ Uhž`U`gc`k`ØfXY`]W\ [YfbY`Yhk`Ug`NY]h`Ui`Z`gY]bYb`K`UbXYfk`Y[Yb`cXYf`]b`gY]bYb`YYfYb K`Y]hYb`j`YfVf]b[Yb"

G\W\]d`_cj`U`9`YbU`#G\i`hhYfghc`W`_8`Ug`7\]a` [Ub! ; YV]f[Y`]b I`gVY_]ghUb

< chY`cXYf`< cghY`fcXYf`7Ua`d]b[Ł3

< chY`ž`V]hhY`"CXYf`ni`a`]bXYgh`Y]b`df]j`UhYg`N]a`a`Yf`]b`Y]bYa < cghY`"≠W\`V]b`Y`hnh`ni`U`h`ZØf`GW\`UZgÅ`Y`i`bX`\`ÅhhY`]]YVYf`Y]bY \Y]» Y`8`i`gW\`Y`i`bX`Y]bY`gW\`ØbY`A`UhfUhnYž`U`g`i`bhYf`Y]bYa GY[Y`hi`W\`ni`gW\`UZyb"

NÅ\`Yb`G]Y`@AbXYf3

5Vgc`i`h`b]W\`h`9g`]gh`Y]bY`Y]hY`i`bX`cVYfZÅW\`]W\`Y` , Vi`b[ž`X]Y _Y]bYb`9]bZi`gg`Ui`Z`X]Y`k`Y`h`]W\`Y`9fZU\`fi`b[` \Uh`8]Y`J`c`fghY``i`b[ž`XUgg`]f[YbX`Ya`UbX`YXYg`@UbX`XYf`K`Y`h`VYgi`W\Yb`a`ØW\`hYž`k`Ybb

k]f'i bg]b`Y]bYf'?`]a U_f]gY`VYZ]bXYbž`]gh`Y`f`]W` [YgU[h`ÀW`Yf`]W`"
I bgYfY`F`Y]gYb`gc`Yb`VYfY]W`YfbX`i bX`VYXYi hi b[gj c`gY]bž
_Y]bY`DZ]W`hØVi b[Yb"

5 VgW`]Y» YbXž`k Ug`k Uf` Æ f`k]W`h[ghYg`F`Y]gYYf`YVb]g3

⇒Y]bYa`k]bn[Yb`J]Yfg]hnYf!:`i [nYi [`]b`B`Ua]V]U`ØVYf`X]Y`? ØghY
i bX`]b`X]Y`K ØghY`ni`Z]Y[Ybž`]gh`VY]`k`Y]hYa`XUg`Ui ZfY[YbXghY
9f`YVb]gž`XUg`]W`Y`U`hY`"Ni`gY`Ybž`k]Y`g]W`XYf`GhfUbX`]b`K ØghY
j Yfk UbXY`hž`k c`X]Y`8ØbYb`ni`XYb`ØW`ghYb`XYf`K`Y`h[Y`ØfYb
i bX`k`Ybb`a`Ub`[YbUi`_]bg]Y`hž`_Ubb`a`Ub`NYVfUg`gY`Ybž`X]Y
ØVYf`XYb`GUbX`Ui`ZYbž`k]fX`g]W`ZØf`]a`a`Yf`]b`a`Y]b` ; YX`W`hb]g
Y]bVfYbbYb"

Ga`Y`cj`#G`i`hYfghc`W`_`K`c`X]Y`B`Ua]V!K ØghY`Ui`Z`XYb`5h`Ubh]gW`Yb
C`nYUb`hf]Zh

⇒W`k`YfXY`Ui`W`b]Y`XYb`A`ca`Ybhj`Yf[YggYbž`U`g`k`]f`]a`:`i [nYi [
XYa`6cXYb`gc`bU`Y`_`Ua`Ybž`XUgg`]W`ZUgh`XYb`D]`chYb`U`Ufa`]Yfh
`À`hYž`VYj`cf`XYf`6cXYb`i`bhYf`i`bg`k`Y[VfUW`i`bX`k`]f`Xi`fW`Y]bY
f]Yg[Y`GW`i`W`h`a`]hYb`]b`XYf`K`ØghY`Zc[Yb"⇒W`VY`_`ca`a`Y
]a`a`Yf`bcW`GW`ØhY`Zfcghž`k`Ybb`]W`bi`f`XUfUb`XYb`_`Y"

8c[!:f]YbX`m`K YY_YbXg`]gh`Y]b`dfU_h]gW`Yf`F`Y]gYZØ\ fYf`ZØf
\\i bXYZfYi bX`]W`Y`:`Yf]Yb`]b`:`fc»Vf]hUbb]Ybž`Y]bgW`Y`Y»`]W`
A i gYYbž`]b`XYbYb`G]Y`XYb`<i bX`a`]hbY`a`Yb`_ÖbbYbž`
\\]ghcf]gW`Yb`9]gYbVU`bYbž`]b`XYbYb`XYf`<i bX`_cgYb`cg`ZÄ`fhž`
i bX`i`bnÄ`\\`][Yb`GdUn]Yf[Äb[Yb`ZØf`X]Y`[UbnY`:`Ua`]`Y`"5a`
k]W`h][ghYb`]ghž`XUgg`Yg`X]Y`YX][`W``\\i bXYhc`YfUbhYb`]j`cb`XYb`
k]f_]W``\\i bXYZfYi bX`]W`Yb`i`bhYfgW`Y]XYh"

<Ui dhV]`X.`5bXfnY^?i V]_#G\\i hhYfgW`_

.

8YhU]`g

6Ygi W`Yb`G]Y`i`bg`Ui`Z.`Y]bY!fY]gY"XY