

HfUbgZYfZ]bU`Y`VY]'6c fi gg]U.`K Yf`V`Y]Vhž k Yf`[Y`h`]b`A`ÒbW`X`Yb[`UXVUW`3

⊕`A`ÒbW`X`Yb[`UXVUW`g]bX`X]Y` : Ubg`j`cb`6c fi gg]U`[YgdUbbhž`k`Ug`X]Y`_ca`a`YbXYb`HU[Y`]b`6Yni [`Ui`Z`HfUbgZYfg`Vf]b[Yb`k`YfXYb``K`À`fYbX`X]Y`YfghY`<`À`ZhY`XYf`HfUbgZYfdYf]cXY`Y]b][Y`bYi`Y` ; Yg]W`hYf`VfUW`hYž`g]bX`X]Y`Y`hnhYb`HU[Y`j`cb`l`bg]W`Yf`Y]h[YdfÀ[hž`k`Y`W`Y`Gd]Y`Yf`XUg`HYUa`j`Yf`UggYb`_ÒbbhYb`i`bX`k`Yf`a`Ò[`]W`Yfk`Y]gY`j`YfdZ]W`hY`h`k`]fX``8]Y`@U[Y`]gh`Ub[YgdUbbhž`XU`XUg`HfUbgZYfZYbghYf`Ua` `` \$``

⊕`A`ÒbW`X`Yb[`UXVUW`g]bX`X]Y` : Ubg`j`cb`6c fi gg]U`[YgdUbbhž`k`Ug`X]Y`_ca`a`YbXYb`HU[Y`]b`6Yni [`Ui`Z`HfUbgZYfg`Vf]b[Yb`k`YfXYb``K`À`fYbX`X]Y`YfghY`<`À`ZhY`XYf`HfUbgZYfdYf]cXY`Y]b][Y`bYi`Y` ; Yg]W`hYf`VfUW`hYž`g]bX`X]Y`Y`hnhYb`HU[Y`j`cb`l`bg]W`Yf`Y]h[YdfÀ[hž`k`Y`W`Y`Gd]Y`Yf`XUg`HYUa`j`Yf`UggYb`_ÒbbhYb`i`bX`k`Yf`a`Ò[`]W`Yfk`Y]gY`j`YfdZ]W`hY`h`k`]fX``

8]Y`@U[Y`]gh`Ub[YgdUbbhž`XU`XUg`HfUbgZYfZYbghYf`Ua` `` \$``5i [i gh`gW`Y]»`h`6]g`XU`]b`_ÒbbhY`g]W`X]Y`5i`ZghY``i`b[`XYf`A`UbbgW`X`UZh`Yf`YV`]W`j`Yf`ÀbXYfb``J]Y`Y`g`XYi`hY`h`XUfUi`Z`]bž`XUgg`XUg`A`UbU[Ya`Ybh`XYf`6c fi gg]U`XUfUi`Z`Zc`_i`gg]Yfh`]ghž`XYb`?`UXYf`gck`c`\\`ei`U`]hUh]j`ni`j`YfVYggYfb`U`g`Ui`W`a`Ò[`]W`Y`5V[`Àb[Y`ghfUhY[]gW`ni`_ca`dYbg]YfYb``

I`b[Yk`]ggY`Ni`_i`bZh`j`cb`A`Ubi`?`cb`Å

6YgcbXYfg]a` : c`_i`g`ghY`h`XYfnY]h`A`Ubi`?`cb`Å``8Yf`hU`Ybh]YfhY`A`]hY`ZY`Xgd]Y`Yf`U`h]b`Øb[ghYf`NY]h`j`]Y`5i`Za`Yf`_gUa`_Y]h`Ui`Z`g]W`[Ync[Ybž`XU`a`Y`fYfY`Yi`fcd`À]gW`Y`?`i`Vgž`XUfi`bhYf`X]Y`57`A`U]`UbX`i`bX`X]Y`5G`F`ca`ž`⊕`hYfYggY`VY`_i`bXYh`U`VYb``GY]bYb`9]bgUhn[Y[Yb`6UmYf`@j`Yf`_i`gYb`a`i`gghY`Yf`Ui`Z[fi`bX`X]YgYf`gdY`_i`Uh]j`Yb`J`Yf`U`bX`i`b[Yb`Ui`ggYhnYb``6Yf]W`hY`b`ni`Zc`[Y`

ZcfXYfh'6c fi gg]U'A ÒbWYb[`UXVUW`Y]bY'5V`ÒgYgi a a Y'j cb`Yhk U
&\$`A]`]cbYb`9i fc`ZØf`XYb`ZfUbnÒg]gWYb`Gd]Y`Yfž`Yj Ybhi Y`
j YfVi bXYb`a]h'6c bi gnU`i b[Yb`"8]Y`K U`fgWY]b`]W`_Y]hž`XUgg
?cb`Å`hUhg`ÅW`]W`k YW`gY`hž`V`Y]Vh`YXcW`i b[Yk]gg"

Ni g`Àh`]W`ni `?cb`Å`k]fX`:`cf]Ub`BYi `Ui g`YVYbZU`g`U`g`a Ò[`]W`Yf
5V[Ub[`X]g`_i h]Yfh`"; Y[Ybk `Àfh][`]Vh`Yg`6Yf]W`hYž`X]Y`]\b`a]h`XYa
: 7`5i [gVi f[`]b`J`YfV]bXi b[`Vf]b[Yb`"Gc`hY`?cb`Å`hUhg`ÅW`]W`XYb
J`YfY]b`j Yf`UggYbž`_ÒbbhY`BYi `Ui g`V`Y]VYbž`XU`XUg`HYUa `gcbgh`]b
XYf`A]hY`ZY`Xdcg]h]cb`ghUf`_ [YgW`k `ÀW`h`k `ÀfY`"9]bY`6YgYhni b[
a]h`š` `]Ub`K`Y][`ž`F`c`W`c`F`Y]hn`i bX`D`]\]dd`GUbXYf`k `ÀfY`ZØf`X]Y
_ca`a`YbXYb`Gd]Y`Y`ni `f]g`_Ubh"

8 YZYbg]j j Yfgh`Àf`_i b[`Xf]b[YbX`[Ygi W`h

DUFU`Y`ni `XYb`a Ò[`]W`Yb`5V[`Àb[Yb`_cbnYbhf]Yfh`g]W`6c fi gg]U
A ÒbWYb[`UXVUW`Ui W`Ui Z`X]Y`J`Yfgh`Àf`_i b[`XYf`8YZYbg]j Y`"GY]h
[YfUi a`Yf`NY]h`VYghY`Yb`6YXUfZi bX`D`Ubi b[Ybž`Y]bYb
`bYbj`YfhY]X][Yf`ni `j`YfdZ]W`hYbž`XYf`Ui W`Ui Z`XYf`_]b`_Yb
5V`k`Y`fgY]hY`Y]b[YgYhnh`k`YfXYb`_Ubb`" `b`X]YgYa `Ni`gUa`a`Yb`Ub[
k`]fX`6YfbUfXc`j`ca` `J`Z@`6cW`i`a` `U`g`<`ch`Hcd]W[Y`UbXY`h`
8UfØVYf`_\]bUi`g`]gh`A`U`i`K`ÒVYfž`XYf`Y]bgh`Ui`Z`@Y`\VUg]g`]b
; `UXVUW`gd]Y`hY`i`bX`bi`b`j`cb`@YXg`i`b]hYX`ni`f`8]g`_i`gg]cb`ghY`\hž
]b`XYb`"; Ygdf`ÅW`Yb"

8]Y`i`a`gh`ÀbXYž`X]Y`a`]h`Y]bYa`a`a`Ò[`]W`Yb`HfUbgZYf`j`cb`K`ÒVYf
j`YfVi`bXYb`g]bXž`V`Y]VYb`YXcW`i`b`_Uf`"Gc`k`]fX`j`cb
j`YfgW]YXYbYb`E`i`Y`Yb`VYf]W`hYhž`XUgg`@YXg`i`b]hYX`bi`f`Y]bYb
J`Yf`_Ui`Z]b`6YhfUW`h`n]Y`\hž`k`Ug`X]Y`G]hi`Uh]cb`_ca`d`n]YfhYf`a`UW`h`
8UfØVYf`_\]bUi`g`_ÒbbhY`XYf`HfUbgZYf`j`cb`?cb`Å`a`Ò[`]W`Yfk`Y]gY
U`g`Z]bUbn]Y`Y`"; fi`bX`U[Y`ZØf`X]Y`J`YfdZ]W`hi`b[`Y]bYg
`bYbj`YfhY]X][Yfg`X]YbYbž`k`Ug`X]Y`8f]b[`]W`_Y]h`XYf`G]hi`Uh]cb
bcW`Y]ba`U`j`Yfgh`Àf`_h"

`b`5bVYhfUW`h`XYf`U`_hi`Y`Yb`GdY`_i`Uh]cbYb`]gh`ZfU[`]W`ž`cV
6c fi gg]U'A ÒbWYb[`UXVUW`fYW`hnY]h][`U`Y`b`ch`k`YbX][Yb
HfUbgZYfg`YfZc`[fY]W`i`a`gYhnYb`_Ubbž`i`a`XUg`HYUa`gck`c`\`ZØf
X]Y`Ui`ZYbXY`GU]gcb`ni`gh`Àf`_Yb`U`g`Ui`W`ghfUhY[]gW`Ui`Z

_ca a YbXY' < YfUi gZcfXYfi b[Yb'j cfVYfY]hYh'ni 'gY]b"8]Y'K Y]WXYb
ZØf'X]Y' bÅW ghY'NY]h'k YfXYb']b'XYb' bÅW ghYb' HU[Yb' [YghY''hž'i bX
X]Y': Ubg'k YfXYb'a]h'GdUbbi b['X]Y'9bhk]W' i b[Yb'j YfZc` [Yb"

⇒ XYf' [Y[Ybk Åfh][Yb': i » VU'' UbXgW UZh'g]bX' HfUbgZYfdYf]cXYb
cZh'j cb'Y]bYa' i bj Yf\c ZhYb'HYa dc' i bX'Y]bYf'J]Y'nU\''j cb
i bj cf\YfgY\ VUfYb'9bhk]W' i b[Yb' [YdfÅ[h''6cfi gg]U
A ÒbWXYb['UXVUW']gh'XU' _Y]bY'5i gbU\ a Y''8]Y''YhnhYb'K cWXYb
XYf' HfUbgZYfdYf]cXY'Vf]b[Yb']b'XYf'FY [Y''Yf\YV']WXY' GdUbbi b[
a]h'g]Wž'XU'j]Y'Y'? 'i Vg'j Yfgi WXYbž'\ fY'? UXYf'ni 'cdh]a]YfYb''8]Y
: c\Yb'ghY\Yb'XUVY']j cf'XYf' < YfUi gZcfXYfi b[ž'gck c\`
dchYbn]Y''Y'5V[Åb[Y'U'g'Ui W'BYi ni [Åb[Y'ni 'a UbU[Ybž'k Ug'X]Y
c\ bY\]b'gWcb'Ub[YgdUbbhY'G]hi Uh]cb']a' J YfY]b'ni gÅh']W
_ca d`n]Yfh"

8]Y'Z]bUbn]Y''Yb'5gdY_hY']a' : i » VU''gd]Y'Yb'XUVY']Y]bY
YbhgWXY]XYbXY'F c''Y''6i bXYg'][U!J YfY]bY'gY\Yb'g]W'ni bY\ a YbX
[Ynk i b[Ybž'X]Y'5i g[UVYb'Xi fW' a Ò[']WXY'Gd]Y'YfhfUbgZYfg
Ui gni ['Y]WXYb''@Ui h'XYa' '6Yf]W'hj cb'8Y'c]hhY'ØVYf'XYb
: i » VU''a Uf_h'&\$&' k i fXY'ZYgh[YghY''hž'XUgg'X]Y'6i bXYg'][U
]bg[YgUa hY]bY' l a gUhnghY][Yfi b['j cb'+ 'DfcnYbh']a' J Yf['Y]W
ni a' J cf'U\ f'j YfnY]W'bYh' \ Uhž'k Ug'Ui ZY]bY'ghY][YbXY
K YhhVYk YfVgZÅ\] [_Y]h'XYf'@[U' \]bXYi hYh''; 'Y]W'nY]h]['a ØggYb
J YfY]bY'k]Y' A ÒbWXYb['UXVUW']\ fY'Z]bUbn]Y''Yb' A Ò[']W_ Y]hYb']a
5i [Y'VY\U'hYbž']bXYa' 'g]Y'J Yf_Åi ZY'hÅh][Ybž'i a' bYi Y'Gd]Y'Yf'ni
j YfdZ]W'hYb' i bX']\ fY'? UXYfghfi _hi f'ni 'j YfVYggYfb''8]Y'G]hi Uh]cb
i bX'X]Y' a Ò[']WXYb' HfUbgZYfg'j cb'Gd]Y'Yfb'k]Y' A Ubi' ?cbÅ' i bX
: 'cf]Ub'BYi \Ui g'j YfXYi h']WXYb'X]Yg"

HfUbgZYfg'i bX']\ fY'5i gk]f_ i b[Yb'Ui Z'X]Y HYUa XmbUa]_

8]Y'5V'Åi ZY']bbYf\U'V'Y]bYg'J YfY]bg'g]bX' b]W'h'bi f'k]fhgW UZh']Wž
gcbXYfb'Ui W' dgmW'c'c []gW' j cb'6YXYi hi b[''Gd]Y'Yf'k]Y'?cbÅ
i bX'BYi \Ui g' \ UVYb' b]W'h'bi f'gdcfh']WY': Å\] [_Y]hYbž'gcbXYfb
Ui W'Y]bY'k]W'h][Y'F c''Y']b'XYf'HYUa XmbUa]_''9]b'dchYbn]Y''Yf
5V[Ub[' _ÒbbhY'XU\Yf'b]W'h'bi f'X]Y'XYZYbg]j Y'GhUV']hÅhž'gcbXYfb

Ui W\`XUg[YgUa hY`A UbbgW\UZhg[YZØ[Y`VYY]bZi ggYb"
A YbhU`hfU]bYf`i bX`DgmW\c`c[Yb`VYhcbYb`cZhž`k]Y`k]W\h][`X]Y
Ya ch]cbU`Y`?c\`ÀfYbn`]bbYf\U`V`Y]bYg`HYUa g`]ghž`X]Y`Xi fW\
\`Ai Z][Y`HfUbgZYfg`ghØfYb`_Ubb"8Yg\U`V`ghY`Yb`?`i Vg`k]Y
; `UXVUW\`g]W\Yfž`XUgg`g]Y`Y]bY`[i h`UV[Ygh]a a hY`?ca a i b]_Uh]cb
a]h`XYb`Gd]Y`Yfb`dZY[Ybž`i a `X]Y`A cfU`i bX`XUg
; Ya Y]bgW\UZhg[YZØ\`ni `VYk U\`fYb"

8]Y`K Yfh\U`h][_Y]hj cb`Gd]Y`Yfb`]gh]b`X]YgYa `?cbhYI h`YVYbZU`g
ni `VYhfUW\hYb"@Ui h`Y]bYf`Ghi X]Y`j cb`7`⇒G`: cchVU`C VgYfj Uhcfm
]gh`XYf`A Uf_hk Yfh]j cb`A Ubi `?cb`Å`]b`XYf`Gd]hnY`Ui ZV]g`ni `&)
A]`]cbYb`9i fc`[YgW\`Àmh`k cfXYbž`k Ug`]\b`ni `Y]bYf`UhhfU_h]j Yb
C dh]cb`ZØf`nU\`fY]W\Y`J YfY]bY`a UW\h`:`Øf`; `UXVUW\`ghY`h`g]W\
\]Yf`X]Y`: fU[Yž`cV`Yg`g]bbj c``]ghž`Y]bY`gc`j]Y`j YfgdfYW\YbXY
Ni _i bZhgdYfgdY_h]j Y`Ui Zni [YVYbž`]bgVYgcbXYfY`k Ybb`X]Y
A Uf_hVYX]b[i b[Yb`b]W\h`cdh]a U`g]bX"

: Øf`X]Y`a Ø[`]W\Y`J Yfgh`Àf`_i b[`XYf`5Vk Y\`f`k `ÀfY`Y]b`Gd]Y`Yf`k]Y
6YfbUfXc`j cb`J Z@6cW\i a `U`g`ghfUhY[]gW\Y`9f[`Àbni b[
]bhYfYggUbhž`XYggYb`Gd]Y`k Y]gY`g]W\`bU\`h`c`g`]b`XUg`VYghY\YbXY
HYUa `]bhY[f]YfYb`_ØbbhY"@Ui h`HfUbgZYfa Uf_h`XY`]Y[h`XYf
A Uf_hk Yfh`XYg`VfUg`]Ub]gW\Yb`J YfhY]X][Yfg`VY]`Yhk U`) `A]`]cbYb
9i fcž`k Ug`]\b`ni `Y]bYf`Z]bUbn]Y``a UW\VUfYb`C dh]cb`ZØf`; `UXVUW\
a UW\hž`j cfUi g[YgYhhž`X]Y`A]hhY`Ui g`Y]bYa `a Ø[`]W\Yb
J Yf_Ui Zgj YfhfU[`j cb`?cb`Å`]g]bX`gW\`bY``j YfZØ[VUf"

8YhU]`g

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