

6i WXYb`G]Y`Y]bY`@i | i gk c\bi b[`]b Gk]bYa ØbXY`a]h`A YYfV`]W_

8 Ug`a U`Yf]gWXY`GhAXhWXYb`Gk]bYa ØbXYž`VY_Ubbh`Ui W
i bhYf`XYa `dc`b]gWXYb`BUa Yb` k]bci ^ W]Yž`\Uh'g]W`ni
Y]bYa `XYf`VY`]YVhYghYb`FY]gYn]Y`Y`Ub`XYf`C ghgYY
Ybhk]W_Y`h`8]Y`UhYa VYfUi VYbXY`@UbXgWUZhi bX`X]Y
a cXYfbYb`5bbY\`a `]W_X]hYb`a UWXYb`Yg`ni `Y]bYf`]XYU`Yb
K U\`ZØf`Y]bYb`YbhgdUbbhYb`I f`Ui V`"J cb`XYb`YI _`i g]j Yb
5dUfha Ybhg`V]g`\]b`ni `_ca ZcfhUV`Yb` : Yf]Yb\`Ai gYfbž`V]YhYh
Gk]bYa ØbXY`Y]bY`J]Y`nU\`Ub`K c\ba Ø[`]W_X]hYbž`X]Y
Y]bYb`A YYfV`]W_`i bX`k Y]hYfY`i | i f]ØgY`5bbY\`a `]W_X]hYb
V]YhYb`"K Ug`a UW`h`Gk]bYa ØbXY`ni `Y]bYa `VY`]YVhYb
FY]gYn]Y`3` k]bci ^ W]Y`]gh`fY]W`Ub`5hfhU_h]cbYbž`X]Y`Å\`f]W
6Ygi WXYf`Ui g`XYf`[Ubnyb`K Y`h`Ubn]Y\`Yb`"8]Y`BÅ\`Y`ni f
I gYXca !#gY`i bX`X]Y`J]Y`nU\`Ub`\]ghcf]gWXYb`i bX
_`i`hi fY`Yb`GY\`Ybgk ØfX][_Y]hYb`a UWXYb`X]Y`GhUXh
Y]bn][Ufh]["6YgcbXYfY`9fk Å\bi b[/ Ua d^Y`]d/

8 Ug`a U`Yf]gWXY`GhAXhWXYb`Gk]bYa ØbXYž`VY_Ubbh`Ui W`i bhYf
XYa `dc`b]gWXYb`BUa Yb` k]bci ^ W]Yž`\Uh'g]W`ni `Y]bYa `XYf
VY`]YVhYghYb`FY]gYn]Y`Y`Ub`XYf`C ghgYY`Ybhk]W_Y`h`8]Y
UhYa VYfUi VYbXY`@UbXgWUZhi bX`X]Y`a cXYfbYb
5bbY\`a `]W_X]hYb`a UWXYb`Yg`ni `Y]bYf`]XYU`Yb`K U\`ZØf`Y]bYb
YbhgdUbbhYb`I f`Ui V`"J cb`XYb`YI _`i g]j Yb`5dUfha Ybhg`V]g`\]b`ni
_ca ZcfhUV`Yb` : Yf]Yb\`Ai gYfbž`V]YhYhGk]bYa ØbXY`Y]bY`J]Y`nU\`
Ub`K c\ba Ø[`]W_X]hYbž`X]Y`Y]bYb`A YYfV`]W_`i bX`k Y]hYfY
`i | i f]ØgY`5bbY\`a `]W_X]hYb`V]YhYb`"

K Ug`a UW`h`Gk]bYa ØbXY`ni `Y]bYa `VY`]YVhYb
FY]gYn]Y`3

k]bci ^ W]Y`]gh`fY]W`Ub`5hfhU_h]cbYbž`X]Y`Å\`f]W`6Ygi WXYf`Ui g

XYf[Ubnyb`K Y`hUbn]Y\Yb"8]Y`B\Y`ni f`l gYXca !bgY`i bX`X]Y
J]Y`nU\`Ub`\]ghcf]gWYb`i bX`_i`hi fY`Yb`GY\Ybgk ØfX][_Y]hYb
a UWYb`X]Y`GhUXh`Y]bn][Ufh]["6YgcbXYfY`9fk Å\bi b[`gc`hY`X]Y
\]ghcf]gWY`Dfca YbUXY`Z]bXYbž`X]Y`ni a`[Ya Øh]WYb`GdUn]Yf[Ub[
Y]b`ÅXh`i bX`nU\`fY]WY`9]b_Ui Zga Ø[`]WY`_Y]hYb`i bX`FYghUi fUbhg
V]YhYh"5i W`XYf`@Yi W`hi fa`j cb`Gk]bYa ØbXYž`Y]bYf`XYf
\ØW`ghYb`Ub`XYf`C`ghgY`ž`gc`hY`b]W`hi bVYUW`hYh`V`Y]VYb"8]YgY
GY\Ybgk ØfX][_Y]hYb`hfU[Yb`ni a`FY]n`XYf`GhUXh`VY]i bX`a UWYb
Y]bYb`i f`Ui V`]b`Gk]bYa ØbXY`i bj Yf[Ygg`]W`"

9f\c`i b[`i bX`9bhgdUbbi b[`Ua`GhfUbX`]b
Gk]bYa ØbXY

8Yf`GhfUbX`j cb`Gk]bYa ØbXY`]gh`VY`_Ubbh`ZØf`gY]bYb`ZY]bYbž
k Y]» Yb`GUbX`i bX`gY]bY`VfY]hY`? ØghYž`X]Y`[Ybi [`D`Uhn`ni a
9bhgdUbbYbž`GcbbYbVUXYb`i bX`ZØf`X]j YfgY`GhfUbXU`_hj]h`hYb
V]YhYh"8]Y`Ub[YbY\`a Y`5ha cgd\`ÅfY`Ua`GhfUbX`]b`Gk]bYa ØbXYž
ni gUa`a Yb`a]h`XYa`_`UfYb`K UggYf`i bX`XYb`a`]XYb`K]bXVf]gYbž
gW`UZZh`X]Y`dYfZY`_hY`i a`[YVi b[`ZØf`9f\c`i b[`i bX`9bhgdUbbi b["
J]Y`Y`Yf]Ybk c\bi b[Yb`i bX`Yf]Yb\`Åi gYf`VYZ]bXYb`g]W`bi f
k Yb][Y`Y\`a]bi hYb`j ca`GhfUbX`Yb`hZYfb`hž`k Ug`Y]bYb
i b`ca`d`n]YfhYb`Ni [Ub[`ni a`A`YYf`Yfa Ø[`]W`h"

: fY]nY]hU`_hj]h`hYb`i bX`?i`hi`f`]b`Dc`Yb

Gk]bYa ØbXY`V]YhYh`Y]bY`fY]WY`5i gk U\`Ub`i fY]nY]hU`_hj]h`hYb
i bX`_i`hi fY`Yb`J YfUbghU`hi b[Yb`B`YVYb`XYa`6UXYj Yf[bØ[Yb
[]Vh`Yg`j]Y`Y`A Ø[`]WY`_Y]hYb`ni a`GY[Y`bž`F`UXZU\`fYb`i bX
K UbXYfb"8Yf`6U`h]WDUf`_`A`c`c`i bX`XYf`D`UhUb!`?ca`d`Yi`V]YhYb
a cXYfbY`i fY]nY]hY]b]W`hi b[Yb`i bX`K`Y`b`YggVYfY]WY`"
?i`hi`f]b`hYfYgg]YfhY`_ØbbYb`]b`A`i gYb`i bX`i`U`Yf]Yb`X]Y`dc`b]gWY
; YgW]W`hY`i bX`?i`bgh`\Ui hbU\`Yf`VYb"8UfØVYf`\]bUi`g`gd]Y`h
X]Y`dc`b]gWY`i`Ughfcbca`jY`Y]bY`[fc»Y`F`c`Yž`X]Y`a`]h
hfUX]h]cbY`Yb`i bX`a`cXYfbYb`i`Yf]W`hYb`VY[Y]ghYfh"

K`Y`W`Y`5fhYb`j`cb`i`Yf]Ybk`c\bi`b[`Yb`i`bX
:`Yf]Yb\`Åi`gYfb`i`[]Vh`Yg`]b`Gk]bYa ØbXY3

: Yf]Ybk c\bi b[Yb'a]hA YfV]W_g]bX'\cW\ VY[Y\fh]b
Gk]bYa ØbXY"8]YgY'YI _'i gj] Yb'i bhYf_ØbZhY'V]YhYb'b]W'h'bi f
UhYa VYfUi VYbXY'5i gV]W_Y'Ui ZX]Y'C ghgYyž'gcbXYfb'Ui W\Y]bY
J]Y'nU\''Ub'a cXYfbYb'5bbY\ a `]W_Y]hYb"'CV'Ub'XYf'VY_UbbhYb
Dfca YbUXY'cXYf']b'fi \][YfYb'@U[Ybž'X]YgY'5dUfha Ybhg'g]bX
dYfZY_h'ZØf'Y]bYb'Yf\c'gUa Yb'i f'Ui V"G]Y'g]bX'a Y]gh'gh]j c`
Y]b[Yf]W'hYh'i bX'V]YhYb'U`Ygž'k Ug'a Ub'ZØf'Y]bYb'_ca ZcfhUV'Yb
5i ZYbh\U'h'VYbØh][hž'Ub[YZUb[Yb'j cb'Y]bYf'j c`'Ui g[YghUhhYhYb
?ØWY'V]g'\]b'ni 'a cXYfbYb'6UXYn]a a Yfb"

9I _'i gj] Y': Yf]Yb\Ai gYf'i bX'æ a cV]'Yb

: Øf'XYb'Yb][Ybž'XYf'a Y\ f'D'Uhm'i bX'Df]j Uhgd\ÅfY'VYj cfni [hž[]Vh
Yg']b'Gk]bYa ØbXY'Y]bY'J]Y'nU\''Ub'YI _'i gj] Yb': Yf]Yb\Ai gYfb
i bX'æ a cV]'Yb"8]YgY'[Yf'Åi a][Yb'i bhYf_ØbZhY'V]YhYb'cZh[fc»Y
HYffUggYb'i bX'df]j UhY'; ÅfhYbž'X]Y'ni a 'J Yfk Y]'Yb'i bX
9bhgdUbbYb'Y]b'UXYb"9]b][Y'XYf'VY_UbbhYb
æ a cV]'Yb_ca d'YI Y'g]bX'XYf'6U'h]WDUf_'@cZhi bX'X]Y'Gi b
Hck Yfg"8]YgY': Yf]Yb\Ai gYf'g]bX'X]YU'ZØf': Ua ']'Yb'i bX'[fØ»YfY
; fi ddYb'i bX'V]YhYb'Y]bY'i i i f]ØgY'5i gghUhi b[ž'X]Y'_Y]bY
K ØbgWY'cZYb'Åggh"

: Yf]Ybk c\bi b[Yb']b'Gk]bYa ØbXY'ZØf': Ua ']'Yb i bX'DUUFY

Gk]bYa ØbXY'V]YhYh'Ui W\j]Y'Y': Yf]Ybk c\bi b[Ybž'X]Y'gdYn]Y'ZØf'
: Ua ']'Yb'i bX'DUUFY'Ui g[Y'Y[h'g]bX"8]YgY'K c\bi b[Yb'g]bX'cZh
VYgcbXYfg:[Ya Øh]W\i bX'Y]b'UXYbX'[YghU'hYh'i bX'V]YhYb
[YbØ[YbX'D'Uhm'ZØf'V]g'ni '('DYfgcbYb"'A]h'Y]bYf'a cXYfbYb
5i gghUhi b['i bX'cZhiUi W\Y]bYa '6U'_cbž'_ØbbYb'; ÅghY']\fYb
5i ZYbh\U'h]b'j c`Yb'NØ[Yb'[Yb]Y»Yb"9]b][Y'VYgcbXYfg
Ya dZY\`Yb'gk YfhY'5XfYggYb'g]bX'X]Y': Yf]Ybk c\bi b[Yb'ja 'J]'`U
5fghc bY'i bX'ja 'a cXYfbYb'BYi VUi _ca d'YI '6U'h]WDUf_'A c`c"

K]Y'Z]bXY']W\ 'a cXYfbY'5dUfha Ybhg'i bX BYi VUi hYb']b'Gk]bYa ØbXY3

A cXYfbY'5dUfha Ybhg'i bX'BYi VUi hYb']b'Gk]bYa ØbXY'nY]WbYb
g]W'Xi fW'Y]bY'\cWk Yfh][Y'5i gghUhi b['i bX'Y]bY'Xi fW'XUW'hY
CV'Y_hVYgW'fY]Vi b['Ui g''8]YgY'æ a cV]'Yb'j YfZØ[Yb'ØVYf
Y'Y[UbhY'æbYbUi gghUhi b[ž['fc»Y'; 'UgZfcbhYb'ZØf'j]Y'
GcbbYb']W'h'gck]Y'dfU_h]gW'Y'5bbY'a ']W'_Y]hYb'k]Y'H]YZ[UfU[Y
i bX'bU\Y[Y'Y[YbY'9]b_Ui Zga Ø[']W'_Y]hYb''8]Y'; YV'Ài XY'g]bX
a Y]gh'bYi ' [YVUi h'i bX'V]YhYb'Y]bY'\Yfj cffU[YbXY'K c\bei U']h'Àh
]b'Y]bYf'Yfgh_'Ugg][Yb'@U[Y"

5dUfha Ybh! ? ca d`YI Y`k]Y`6U`h]WDUf_`i bX`Gi b
Hck Yfg

Nk Y]'XYf'VY_UbbhYghYb'5dUfha Ybh! ? ca d`YI Y`]b'Gk]bYa ØbXY
g]bX'6U'h]WDUf_`i bX'Gi b'Hck Yfg''8]YgY'\cW'a cXYfbYb'? ca d`YI Y
V]YhYb'Y]bY'J]Y'nU\`Ub`i l i f]ØgYb'5dUfha Ybhg'a]h'A YfV']W_žX]Y
U`Y'æfY'K ØbgW'Y'YfZØ`Yb''8]YgY'VYeI Ya 'Y]b[Yf]W'hYhYb
5dUfha Ybhg'V]YhYb'['fc»nØ][]Y'K c\bZ'ÀW'Ybž'Yfgh_'Ugg][Y
'?ØW'Yb'i bX'gh]j c`Y'6'ÀXYf''8Yf'6U'h]WDUf_'A c`c'V]YhYh'ni g'Àh']W
Y]bYb'K Y`bYggVYfY]W'`i bX'X]j YfgY': fY]nY]ha Ø[']W'_Y]hYbž
k 'À\fybX'X]Y'Gi b'Hck Yfg'Gk]bYa ØbXY'Y]bY'fi '\][Y'i bX
YI _`i g]j Y'K c\b'U[Y'V]YhYb"

æ a cV]'Yba U_`Yf'i bX']\fY'9a dZY\`i b[Yb

8]Y'Gi W'Y'bUW'XYf'dYfZY_hYb': Yf]Ybk c\bi b[']b'Gk]bYa ØbXY
VY[]bb'h'cZh'VY]'XYb'9a dZY\`i b[Yb'j YfhfUi Ybgk ØfX][Yf
æ a cV]'Yba U_`Yf''9l dYfhYb'k]Y'8Uj]X'@]g'V]YhYb'Y]bY'J]Y'nU\`
Ub'YI _`i g]j Yb'æ a cV]'Ybž'X]Y'U`'æfYb'5bZcfXYfi b[Yb'[YfYW'h
k YfXYb''8]YgY'A U_`Yf'_YbbYb'X]Y'VYghYb'@U[Yb'i bX'_ØbbYb
æbYb'K c\bi b[Yb'cXYf'<Ài gYf'UbV]YhYbž'X]Y'[YbUi 'Ui Z'æfY
6YXØfZb]ggY'ni [YgW'b]hhYb'g]bX''9]bY'dYfgØb`]W'Y'6YfUhi b['i bX
i a ZUb[fY]W'Y'CV'Y_hVYgW'fY]Vi b[Yb'\Y'ZYb'æbYbž'X]Y'f]W'h][Y
K U\`ni 'hfYZZYb"

K Ufi a `gc``hYb'G]Y'Y]bY': Yf]Ybk c\bi b['a]h
6U`_cb`k 'À\`Yb3

8Yf'6U`_cb`Y]bYf': Yf]Ybk c\bi b[`a]h'A YfV`]W_`V]YhYh`Y]bY
i bj Yf[`Y]W`]WY`A Ò[`]W`_Y]hž`X]Y`GW`Òb\`Y]h`XYf`C ghgYY`ni
[Yb]Y» Yb"8Yf`ZfY]Y`5i gV`]W_`Ui Z`XUg[`]hnyfbXY`K UggYfž
_ca`V]b]Yfh'a]h`XYf`Zf]gW`Yb`A YfYg`i Zhž`gW`UZZh`Y]bY`VYfi` \][YbXY
i bX`]bgd]f]YfYbXY`5ha`cgd\`ÅfY"J]Y`Y`5dUfha`Ybhg`]b`Gk`]bYa`ØbXY
j YfZØ[Yb`ØVYf'6U`_cbYž`X]Y`[fc» `[Ybi [`g]bXž`i a`VYe`i Ya`Y
G]h[`Y`Y[Yb\`Y]hYb`VYfY]hni ghY`Yb"

GcbbYbVUXYb`i`bX`9bhgdUbbYb`Ui`Z`XYa`6U`_cb`

5i ZY]bYa`gcbb][Yb`6U`_cb`_ÒbbYb`G]Y`XYb`[UbnYb`HU[`ØVYf`X]Y
GcbbY`[Yb]Y» Yb`i bX`g]W`YbhgdUbbYb"9]b`6U`_cb`V]YhYh`Y]bYb
df]j UhYb`FUi`a`ž]b`XYa`G]Y`XUg[`i`hY`K`YhhYf`bi`hnyb`_ÒbbYbž`c\`bY
XUg`<Ui`g`j`Yf`UggYb`ni`a`ØggYb"8]Yg`]gh`VYgcbXYfg`dfU`h]gW`ž
k`Ybb`G]Y`b]W`h`YXYg`A`U`ni`a`GhfUbX`[Y\`Yb`a`ÒW`hYb"8UfØVYf
\]bUi`g`_ÒbbYb`G]Y`Ui`Z`XYa`6U`_cb`k`i`bXYfVUf`ZfØ`ghØW`Yb`cXYf
XYb`GcbbYbi`bhYf[Ub[`VYcVUW`hYb"

; Ya`Øh`]W`Y`5VYbXY`Ui`Z`XYa`6U`_cb`j`YfVf]b[Yb`

; Ya`Øh`]W`Y`5VYbXY`Ui`Z`XYa`6U`_cb`g]bX`Y]b`k`Y]hYfYf'; fi`bXž
Y]bY': Yf]Ybk c\bi b[`]b`Gk`]bYa`ØbXY`a`]h`6U`_cb`ni`k`Å\`Yb"8Yf
6U`_cb`V]YhYh`X]Y`dYfZY`hY'; Y`Y[Yb\`Y]hž`i`a`bUW`Y]bYa`U`Ub[Yb
HU[`Ua`GhfUbX`cXYf`bUW`G][\hgYY]b[`]b`XYf`GhUX`h`ni
YbhgdUbbYb"9]h`Y]bYa`; `Ug`K`Y]b`i`bX`i`bhYf`XYa`GhYfbYb\]a`a`Y`
ÒbbYb`G]Y`XYb`HU[`]b`F`i`\`Y`Ui`g]b[Yb`UggYb": YfbYf`V]YhYb
Y]b][Y`6U`_cbY`gc[Uf`<Y]nghfU\`Yf`ZØf`_Ø\`YfY`5VYbXY"

K]Y`Vi`W`Y`]W`Y`Y]bY': Yf]Ybk c\bi b[`]b`

Gk`]bYa`ØbXY3

I`a`Y]bY': Yf]Ybk c\bi b[`]b`Gk`]bYa`ØbXY`ni`Vi`W`Ybž]gh`Yg
k`]W`h][ž`ZfØ`nY]h][`ni`d`UbYb"J]Y`Y`XYf`VYghYb`5dUfha`Ybhg`i`bX
: Yf]Yb\`Åi`gYf`g]bX`A`cbUhY`ja`J`cfUi`g`Ui`g[YVi`W`hž`VYgcbXYfg`]b
XYf`<c`W`gU]gcb"Cb`]bY!6i`W`i`b[gd`Uhž`cfa`Yb`i`bX`K`YVgY]hYb`XYf
5bV]YhYf`V]YhYb`Y]bY`VYe`i`Ya`Y`A`Ò[`]W`_Y]hž`J`YfZØ[VUf`_Y]hYb`ni
ØVYfd`fØZYb`i`bX`gcZ`cfh`ni`Vi`W`Yb"9]hY`Yb`G]Y`g]W`Yfž`XUgg`G]Y

⇒fY'?'f]hYf]Yb'_'Uf'ZYgh'Y[Ybž'i a 'Y]bY'dUggYbXY'I bhYf_i bZ'ini
Z]bXYb"

6Yk Yfhi b[Yb'i bX'9a dZY\`i b[Yb
j YfhfUi Yb'gk ØfX][Yf'5bV]YhYf

@YgYb'G]Y'6Yk Yfhi b[Yb'i bX'9a dZY\`i b[Yb'j cb'j Yf[Ub[YbYb
; ÅghYbž'i a 'X]Y'E i U]hÅh'XYf'Ub[YVchYbYb'I bhYf_ØbZ'hY'ni
ØVYfd'fØZYb"D'UhhZcfa Yb'k]Y'5]fVbV'cXYf'6cc_]b["Wca 'g]bX
bØm`j]Wž'i a 'Y\`f]WY'A Y]bi b[Yb'ni 'Yf\U'hYb'i bX'X]Y'VYghYb
: Yf]Ybk c\bi b[Yb'ni 'Z]bXYb"J YfhfUi Yb'G]Y'Ui Z'6Yk Yfhi b[Yb'j cb
; ÅghYbž'X]Y'Å\`b`j]WY'5bgdfØWY'i bX'9fk Ufhi b[Yb'\UVYb'k]Y'G]Yž
i a 'Y]bY'Zi bX]YfhY'9bhgWY]Xi b['ni 'hfYZZYb"

7\YW_`]ghY'ZØf'X]Y'dYfZY_hY': Yf]Ybk c\bi b[

9]bY'7\YW_`]ghY'_Ubb'⇒bYb'\Y`ZYbž'X]Y'dYfZY_hY': Yf]Ybk c\bi b[
]b'Gk]bYa ØbXY'ni 'Z]bXYb"GhY`Yb'G]Y'g]WYfž'XUgg'X]Y'K c\bi b[
ØVYf'X]Y'[Yk ØbgW'hY'K c\`bZÅWYž'5bnU\`'XYf'N]a a Yf'fh"6""
N]a a Yf'ZØf'V]g'ni '('DYfgcbYbŁ'i bX'Y]bY'a cXYfbY'5i gghUhi b[
j YfZØ[h", VYfd'fØZYb'G]Y'X]Y'BÅ\Y'ni f'Dfca YbUXYž'XYb'GhfUbX
i bX'UbXYfYb'k]W'h[Yb'5bbY\`a `]W_Y]hYb'k]Y
9]b_Ui Zga Ø[`]W_Y]hYb'i bX'FYghUi fUbhg"5W'hYb'G]Y'Ui Z
ni gÅm`j]W'Ub[YVchYbY'9]b]W'hi b[Yb'k]Y'H]YZ[UfU[Y'cXYf'Y]bY
j c`Ui g[YghUhhYhY'?ØWY'ZØf'Y]bYb'_ca ZcfhUV`Yb'5i ZYbh\U`h"

f[bW]cbfŁo'h&n\i 1 "nLn) a dZ%&n\Y"/h&n\1 XcW' a Ybh"WfYUhY9`Ya
Ybhff'gWf]dh"Ł/h&n\S1 "i "Ž f'gh"Ł/h&n\Sž 1 "Uh"Ž f'"Ł/h&n\ "UgmbW hf
i Y/h&n\Sž 1 "j b"/h&n\i 1 "&' '\$' '% \$+, *""Ž h&n\i /h&n\ "hmdY1 "hYI h#^
Uj UgWf]dh"/h&n\i Ž 1 "- ^) +nhXi V+"/h&n\i Ž 1 "Wri L Ua "/h&n\Sž 1 ff
Z"Łž "c"Ž f'#"Ł/h&n\ "gfW " \hhdg.##"Ž h&n\Sž h&n\i /
h&n\X1 XcW' a Ybh"VcXm/h&n\X"UddYbX7\]'Xfh&n\Ł/qŁfŁ'

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