

B Yi Yf'@cc_ž'VYk À\ fhYg'HYUa .
; Yfa Yf]b[Yf'F Y]gYVØfcg'Zi g]cb]YfYb

Nk Y]; Yfa Yf]b[Yf'F Y]gYVØfcg'Zi g]cb]YfYb'ni '<c`]XUmVm
`Yhg!hfUj Y`i bX`Yfk Y]hYfb`]\f'5b[YVch'ZØf'?i bXYb"l a hfi b_
Ua`%*"GYdhYa VYf"

9]bY'gdUbbYbXY'9bhk]W`i b[`]a`'6YfY]W`XYf'F Y]gYVØfcg`]b
; Yfa Yf]b[`Uh`]b`YhnhYf'NY]h'ZØf'5i ZgY\Yb`[Ygcf[h`8]Y`VY]XYb
YhUV`YfhYb'5bV]YhYf'<c`]XUm@UbX`F Y]gYgYfj]W`i bX`Yhg!
hfUj Y`"bYh`UVYb'g]W`ni gUa`a Yb[YgW`cggYb`i bX`hfYhYb`_ØbZh][
i bhYf'XYa`bYi Yb`BUa`Yb'<c`]XUmVm`Yhg!hfUj Y`Ui Z`8]YgY`i g]cb
n]Y`h`XUfUi ZUVž'XYb'?i bXYb`Y]b`i a ZUggYbXYfYg'5b[YVch'i bX
j YfVYggYfhYb`GYfj]W`ni `V]YhYb"

⇒ `F U\ a Yb`X]YgYf'ghfUhY[]gW`Yb`9bhgW`Y]Xi b[`VØbXY`b`X]Y
VY]XYb'6Øfcg`]\fY'9l dYfh]gY`i bhYf'XYa`8UW`XYf'A ØW_Y`F Y]gYb
; a V<ž'X]Y`]b`XYf'F Y[]cb`Y]bYb`VYXYi hYbXYb`GhY`Ybk Yfh`\Uh"A]h
Y]bYa`'À\f]W`Yb`l a gUhn`j cb`fi bX`(`ž) `A]`]cbYb`9i fc`i bX`Y]bYa
HYUa`j cb`gYW`g'6YfUhYfb`]gh'A ØW_Y`F Y]gYb`Y]b`ZØ\ fYbXYf
5bV]YhYf`i bhYf'XYb`c_U`Yb`F Y]gYU[Ybhi fYb"

9hUV`]YfhY`DYfgØb`]W`_Y]hYb`V`Y]VYb`Ub`6cfX

8]Y`ϕ\UVYf]bbYb`XYf'VY]XYb`F Y]gYVØfcgž`gUVY`U`DU^`j cb
<c`]XUm@UbX`F Y]gYgYfj]W`i bX`A]W`UY`U`GhY]ba YmYf'j cb`Yhg!
hfUj Y`"bYhžk YfXYb`U`g'6Øfc`Y]hYf]bbYb`Zi b[]YfYb`i bX`g]bX
[Ya Y]bgUa`a]h`\fYa`[YgUa`hYb`HYUa`]b`X]Y`bYi Y`Ghfi`_hi`f
]bhY[f]Yfh"⇒fY`Ub[`À\f][Y`9fZU\fi b[`i bX`6]bXi b[`ni`XYb
GhUa`a`_i bXYb`g]bX`k Yfhj`c`Y`F Yggci fW`bž`Ui Z`X]Y`XUg`bYi Y
F Y]gYVØfc`ni fØW_[fY]ZYb`_Ubb"

9g[Y\h'k Y]hYf'k]Y`V]g\Yf"Bi f`VYggYf"K]f\UVYb`Yhnh'XYi h]W
a Y\ f'A Ubdck Yf'i bX`9I dYfh]gY žYf_`Àfh`gUVY`U`DU^"8]YgY
?ca V]bUh]cb`j Yfgdf]W hž`X]Y`8]Ybgh`Y]ghi b[Yb`ZØf`X]Y`?i bXYb
Yf\YV`]W`ni`Yfk Y]hYfb" `A]W`UY`U`GhY]ba YmYf`Yf[`Àbnh` 6Y]XY
6Øfcg`Yf[`ÀbnYb`g]W`i bhYf`XYa`bYi Yb`[Ya`Y]bgUa Yb`8 UW
dYfZY`_h"i bgYf`Gcfh]a Ybh`]gh`bi b`XYi h]W`VfY]hYf`[YZ`W`Yfh"
K `À\ fYbX`Yhg!hfUj Y`"bYh`ni j cf`Y]bYb`GW`k Yfdi b`_hUi Z
?fYi nZ\`fhYb`i bX`Fi bXfY]gYb`[Y`Y[h`\Uhž`_ca a h`Yhnh`a Y\ f
?bck`!\ck`i]a`6YfY]W`DUi gW`U`fY]gYb`\]bni "8]Y`i g]cb
j Yfgdf]W`h`Y]bY`VfY]hYfY`DU`YhY`Ub`F`Y]gYa`Ò[`]W`_Y]hYbž`X]Y
bU\Yni`YXYb`?i bXYbk i bgW`UVXYW`_h"

5a`A`cbhU[ž`XYb`%*`"GYdhYa`VYfž`k]fX`Yg`i a`i%)`i`\f`VY]`<c`XUm
Vm`Yhg!hfUj Y`Y]bYb`i a`hfi b`_[YVYb"8]Yg`]gh`Y]bY`; Y`Y[Yb\Y]h
ZØf`b`hYfYgg]YfhYž`g]W`ØVYf`F`Y]gYb`ni`]bZcfa`]YfYb`i bX`X`YYb`ZØf
]\fYb`b`ÀW`ghYb`i f`Ui V`ni`gUa`a`Y`b"8]Y`bYi Y`5XfYggY`XYg`6Øfcg
k]fX`X]Y`i bhYfY`6U\`b\cZghfU»Y`%+`]b`; Yfa`Yf]b[`gY]bž`k`c`X]Y
?i bXYb`ZØf`]\fY`i f`Ui Vgd`ÀbY`\Yfn`]W`Ya`dZUb[Yb`k`YfXYb"

8]Y`A`ÒW`_Y`F`Y]gYb`; a`V<`]gh`b]W`h`bi f`]b`; Yfa`Yf]b[`U`_h]ž
gcbXYfb`VYhfY]Vh`VYfY]hg`F`Y]gYVØfcg`]b`Gh`X`hYb`k`]Y`A`ØbW`Ybž
?Ya`dhYb`i bX`A`Ya`a`]b[Yb" `A`]h`XYf`i g]cb`_Ubb`XUg
i bhYfbY\`a`Yb`gY]bY`A`Uf`_hd`f`ÀgYbn`k`Y]hYf`ZYgh][Yb`i bX`XYb
?i bXYb`Y]b`i bj`Yfk`YW`gY`VUfYg`9f`YVb]g`V]YhYb"9g`]gh`HY]`XYf
Gi`YXk`Ygh`Hci`f]gh]_`; a`V<`ž`X]Y`ni`XYb`[fØ»`hYb`]b\UVYf[YZØ\`fhYb
F`Y]gYVØfc!Cf[Ub]gUh]cbYb`]b`8Yi hgW`UbX`n`À`\`hi bX`ØVYf" \$
F`Y]gYVØfcg`]b`XYf`F`Y[]cb`i a`ZUggh"

9]b`k`]W`h][Yf`GW`f]hh`ZØf`X]Y`F`Y]gYVfUbW`Y

8]Y`6YXYi hi b[`X]YgYf`i g]cb`[Y\`h`ØVYf`X]Y`V`c»Y
Ni`gUa`a`Yb`Y[i b[`j`cb`6Øfcg`\]bUi`g" `b`Y]bYf`NY]hž`]b`XYf`X]Y
F`Y]gYk`Y`h`g]W`fUgUb`hj`Yf`Àb`XYf`hž`fYU[]Yfh`X]Y`6fUbW`Y`dfcU`_h]j
Ui`Z`X]Y`ghY][Yb`XYb`?i bXYb`UbZcfXYfi b[Yb`i bX`XYb
ni bY\`a`Yb`XYb`K`Yh`VYk`YfV"8]Y`9b`hgW`Y]Xi b[ž`g]W
ni`gUa`a`Ybni`gW`Y]Y»Ybž`nY][hž`XUgg`Ui`W`_`Y]bYfY`5bV]YhYf
UbdUggi b[gZ`\][`g]bX`i bX`X]Y`6YXØfZb]ggY`]fYf`?i bXYb`Yfbgh
bY\`a`Yb" `b`XYa`g]Y`]fY`F`Yggci`fW`b`VØb`XY`bž`a`ÒW`hYb`g]Y`b]W`h

bi f'XYb'J Yf_Ui Zj cb'F Y]gYb'ZØfXYfbž'gcbXYfb'Ui W'Y]b
i a ZUggYbXYg'i bX'UVk YW'g'i b[gfY]W'Yg'5b[YVch'VYfY]hghY''Yb"

8]Y'D\]cgc d\]Y'XYf'A ØW_Y''F Y]gYb'; a V<'k]fX'Ui W'k Y]hYf\]b
XUfUi ZUVn]Y'Ybž'X]Y''c_U'Y'⇒XYbh]hÅ'h'XYf'5[Ybhi fYb'ni 'VYk U\ fYbž
k Ug'ZØf'j]Y'Y'?i bXYb'Y]b'k]W'h][Yf'5gdY_hj cb'J YfhfUi Yb'i bX
?i bXYbbÅ\Y']gh''Hfcm'XYf', VYfbU\ a Y'V'Y]Vh'XUg'HYUa ']b
; Yfa Yf]b['VYgh\Ybž'k cXi fW'X]Y''Ub[Y'6Yn]Y\i b['ni 'XYb
?i bXYb'b]W'h'bi f'Zcfh[YZØ\fhž'gcbXYfb'Ui g[Yk Y]hYhik YfXYb' _Ubb"

⇒a ; fc>Yb'i bX'; UbnYb'ghY''h'X]Y': i g]cb'XYf'VY]XYb'F Y]gYVØfcg
Y]bYb'VYXYi hYbXYb'GW'f]h'h]b'XYf''c_U'Yb'F Y]gYVfUbW'Y'XUf'i bX
_Øbbh'Y'Y]b'Y'HfYbXk YbXY']b'XYf'5fhi bX'K Y]gY'XUfghY''Ybž'k]Y
F Y]gYUb[YVchY']b'XYf'F Y[]cb'k U\ f[Ybca a Yb'i bX' [Ybi hnh
k YfXYb''A]h'Y]bYa 'Yfk Y]hYfhYb'5b[YVchi bX'Y]bYa 'a ch]j]YfhYb
HYUa 'ghY\Yb'X]Y'NY]W'Yb'ZØf'X]Y'Ni _i bZh' [i h"

8]Y': i g]cb'j cb'<c']XUm@UbX'F Y]gYgYfj]W' 'i bX''Yhg!hfUj Y''bYh
i bhYf'XYa 'bYi Yb'B Ua Yb'<c']XUmVm''Yhg!hfUj Y'']gh'b]W'h'bi f'Y]b
ghfUhy []gW'Yf'GW'f]h'h'ni f'C dh]a]Yfi b['XYg'5b[YVchgž'gcbXYfb
gd]Y[Y'h'Ui W'X]Y'U_hi Y''Yb'HfYbXg']b'XYf'F Y]gYVfUbW'Y'k]XYf"
⇒a a Yf'a Y\ f'F Y]gYVØfcg'j Yfgi W'Ybž'Xi fW'?'ccdYfUh]cbYb'i bX
: i g]cbYb']\ fY'F Yggci fW'b'ni 'VØbXY'bž'i a 'k YhhVYk YfVgZÅ\] ['ni
V'Y]VYb"

8]Y'Ni gUa a YbUfVY]h'XYf'VY]XYb'F Y]gYVØfcg'nY][hž'k]Y'k]W'h]['Yg
]ghž'g]W'Ub'j YfÅbXYfhY'A Uf_hVYX]b[i b[Yb'Ubni dUggYb"
⇒gVYgcbXYfY'bUW'XYb'<YfUi gZcfXYfi b[Yb'XYf
7cj]X!%- !DUbXYa]Y'a i gg'X]Y'F Y]gYVfUbW'Y'ZYI]VY''i bX
]bbc] Uh]j 'gY]bž'i a 'XYb'6YXØfZb]ggYb'XYf'?i bXYb' [YfYW'h'ni
k YfXYb''8Yf': c_i g'Ui ZY]b'VfY]hYfYg'Gcfh]a Ybhi]gh'\]YfVY]Y]b
nYbhfU'Yf'5gdY_hž'i a 'X]j YfgY'F Y]gYk ØbgW'Y'VYX]YbYb'ni
_ØbbYb"

K UW'ghi a 'Xi fW'?'ccdYfUh]cb

8]Y'F Y]gYVfUbW'Y']b'8Yi hgW'UbX']gh]a 'K UbXY''i bX'k]fX
ni bY\ a YbX'j cb': i g]cbYb'i bX'?'ccdYfUh]cbYb' [YdfÅ[h''@Ui h'XYa

8 Yi hgWkYb'FY]gYj YfVUbX'fBFJL]gh'XYf'l a gUhn'XYf'XYi hgWkYb
Hci f]ga i gVfUbWkY'&\$&' k]YXYf'Ui ZXYb'Jcf!7cfcbU!B]j YUi
[Ygh]Y[Ybž'k Ug'X]Y'Bchk YbX][_Y]h'j cb'GmbYf[]Yb'nk]gWkYb
FY]gYVØfcg'j YfghÅf_h''?ccdYfUh]cbYb'k]Y'X]Y'j cb'<c`]XUm'Vm'Yhg!
hfUj Y''YfØZbYb'gck c\''bYi Y'; YgWkÅZhga Ò[`]Wk_Y]hYb'U'g'Ui Wk
X]Y'7\UbWžX]Y'9I dYfh]gY'i bX'9fZU\fi b['XYf'A]hUfVY]hYbXYb'ni
VØbXY'b"

8]Y'A ÒW_Y'FY]gYb'; a V<ž'ni 'XYf'<c`]XUm'Vm'Yhg!hfUj Y''bi b
[Y\Øfhž\Uh'Xi fWk'X]Y', VYfbU\ a Y'Ub'6YXYi hi b['[Yk cbbYb'i bX
U[]Yfh'U'g'Y]bY'XYf'ZØ\fybXYb'FY]gYU[Ybhi fYb'ja 'GØXk YghYb
8 Yi hgWk'UbXg''A]h'ØVYf'' \$'FY]gYVØfcg']b'XYf'FY[]cb'\Uh'X]Y
Gi YXk Ygh'Hci f]gh]_; a V<' [YnY][hž'XUgg'g]Y'Ui Z'c_U'Y'×Yb'h]hÅh
gYhnhž'Ui Wk'k Ybb'Yg'ni ': i g]cbYb'_ca a h''8 Ug'VYXYi hYhž'XUgg'X]Y
VY_UbbhYb'A Uf_Yb'i bX'HYUa g'VYghY\Yb'V'Y]VYb'i bX'X]Y'?i bXYb
Y]bY'j YfhfUi hY'5b'Ui ZghY''Y'VY\U'hYb"

8]Y'Ni _i bZh'XYg'FY]gYbg

9]b'k Y]hYfYf'k]Wk'h][Yf'Di b_h]b'XYf'U_hi Y''Yb'9bhk]W'_i b[`]gh'XUg
ni bY\ a YbXY' ðhYfYggY'Ub'bUWk\U'h][Ya 'Hci f]ga i g"@Ui h'Y]bYf
I a ZfU[Y'j cb'6cc_]b["Wka 'Ui g'XYa 'Å\ f'&\$&' k c''Yb', %i 'XYf
FY]gYbXYb']\fyb'Ò_c`c[]gWkYb': i »UVXfi W'_fYXi n]YfYb"
FY]gYVØfcgž'X]Y'XUfUi ZY]b[Y\Yb'i bX'bUWk\U'h][Y'Cd]h]cbYb
UbV]YhYbž'_ØbbhYb']b'XYf'Ni _i bZh'Y]bYb'K YhVYk YfVgj cfhY]'
\UVYb"

ð'X]YgYa '?cbhYI h]gh'Yg'ZØf'<c`]XUm'Vm'Yhg!hfUj Y''Yb'hgWkY]XYbXž
Ui Wk'5b[YVchY'ja '6YfY]Wk'XYg'bUWk\U'h][Yb'FY]gYbg']b']\f
DcfhZc`]c'Ui Zni bY\ a Ybž'i a 'XYb'5bgdfØWkYb'i a k Y'hVYk i gghYf
'?i bXYb'[YfYWk'hini 'k YfXYb''8 Ug'5b[YVch'j cb'DUi gWkU'fY]gYb'
hfUX]h]cbY''Y]b'k Yb][Yf'bUWk\U'h][Yf'6YfY]Wk' '_ØbbhY'XU\Yf
Xi fWk']b'bcj Uh]j Y'bUWk\U'h][Y'FY]gYdU_YhY'Yf[Åbnh'k YfXYbž'i a
XYb'K UbXY''\]b'ni 'j YfUbhk cfhi b[gVYk i gghYa 'FY]gYb'ni
i bhYfghØhYb"

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