

9]b`bYi Yf`K UWX hdc ghYb. `bX]Yb ghghY``i b[  
XYg`<Y]a UhgW\i hnfY[ ]a YbhYg`(`]b  
GW\k Yf]b

9f`YVYb`G]Y`X]Y`ZY]Yf`]W\Y`bX]Yb ghghY``i b[ `XYg  
<Y]a UhgW\i hnfY[ ]a Ybhg`(`Ua`%+`"GYdhYa VYf`&\$&(`]a  
GW\k Yf]bYf`GW\`cgg[ UfhYb"; YbYfU`a U`cf`5bXfYUg`<YbbY  
i bX`\cW\fUb[ ]([Y; `AghY`Ui g`Dc`h]\_i bX; YgY``gW\UZh  
k ØfX][ Yb`XYb`9]bgUhn`XYf`FYgYfj ]ghYb`ZØf`XYb`GW\i hn  
i bgYfYf`: fY]\Y]h`9bhXYW\_Yb`G]Y`X]Y`6YXYi hi b[ `X]YgYg  
bYi Yb`Hfi ddYbhY]`g`ZØf`X]Y`@UbXYg!`i bX  
6ØbXb]gj YfhY]X][ i b[ `gck ]Y`X]Y`DfcZYgg]cbU`g]Yfi b[ `XYf  
6i bXYgk Y`f`]a `F U`a Yb`j cb`bUh]cbU`Yb  
G]W\Yf\Y]hgUi Z[ UVYb`"GY]Yb`G]Y`XUVY]`i bX`YfZU`fYb`G]Y  
a Y`f`ØVYf`X]Y`ni \_ØbZh][ Y`F`c`Y`XYg`FY[ ]a Ybhg`]b  
A YW\_YbVi f[ !J cfdca a Yfb`i bX`XUfØVYf`\]bUi g"



GhÀf`\_i b[ `XYg`<Y]a UhgW\i hnYg.  
`bX]Yb ghghY``i b[ `XYg  
<Y]a UhgW\i hnfY[ ]a YbhYg`(`]b`GW\k Yf]b

5a '%+"GYdhYa VYf'&\$&( ži a '%(.) \$'l \fžZUbX'ja 'a U`Yf]gWXYb  
GW`cgg[ UfhYb'j cb'GWk Yf]b`Y]bY`VYXYi hYbXY`NYfYa cb]Y`ghUhh"  
8cfhk i fXY`XUg`<Y]a UhgWxi hnfY[ ]a Ybh('cZZ]n]Y``]bg`@YVYb  
[ Yfi ZYbž`Y]b`GWf]hž`XYf`X]Y`G]WXYf\Y]hi bX  
J YfhY]X][ i b[ gVYfY]hgWUZh]b`A YW`YbVi f[ !J cfdca a Yfb`ghÅf`Yb  
gc``"8]YgY`J YfUbgU`hi b[ `nc[ `b]W`h`bi f`j ]Y`Y`]bhYfYgg]YfhY  
6Øf[ Yfž`gcbXYfb`Ui W`k ]W`h][ Y`DYfgØb`]W`\_Y]hYb`Ui g`XYf`Dc`]h`  
Ub"

; YbYfU`a U`cf`5bXfYUg`<YbbYž`GhY``j YfhfYhYf`XYg`6YZY`g\UVYfg  
XYg`HYff]hcf]U`Yb` : Ø\fi b[ g\_ca a UbXcg`XYf`6i bXYgk Y`fž`Y]hYhY  
X]Y`a ]]hÅf]gWXY`NYfYa cb]Yž`VY]`XYf`X]Y`cZZ]n]Y``Y`Hfi ddYbZU`bY  
Ub`CVYfgh`XYf`F YgYfj Y` : fUb`\_!9W`\_UfX`6fUbX`ØVYf[ YVYb`k i fXY`  
8]YgY` : U`bY`]gh`Y]b`Gma Vc`ZØf`X]Y`9]b`Y]hi bX`XYb  
Ni gUa a Yb`U`h`XYf`Gc`XU`hYb`i bX`k ]fX`\_ØbZh][ `XYb` ; Y]gh`XYg  
<Y]a UhgWxi hnfY[ ]a Ybhg`(`j Yf`\_ØfdYfb"

8]Y`ϕX]YbghghY``i b[ `XYg`F Y[ ]a Ybhg`]gh`Y]b`Ui ggW`U[ [ YVYbXYf  
A Y]`YbghY]b`]b`XYf`DfcZYgg]cbU`]g]Yfi b[ `XYf`F YgYfj ]ghYb`"6]f[ ]h  
<YggYž`DfÅg]XYbh]b`XYg`@UbXhU[ Yg`A YW`YbVi f[ !J cfdca a Yfbž  
VYhcbhY`X]Y`k Yfhj c``Y`F c``Yž`X]Y`F YgYfj ]ghYb`VY]`XYf`J YfhY]X][ i b[  
j cb` : fY]\Y]hi bX`FYW`h`gd]Y`Yb.` Æf`dYfgØb`]W`Yf`9]bgUhn`]gh  
VYk i bXYfbgk Yfh` ϕ`\_f]h]gWXYb`G]hi Uh]cbYb`\_ØbbYb`k ]f`Ui ZX]Y  
F YgYfj ]ghYb`i bX`X]Y`U`\_h]j Y`Hfi ddY`nÅ`Yb"

9]b`k YgYbh]W`Yf`5gdY`\_h`XYf` : Y]Yf`]W`\_Y]h`k Uf`XYf`F ØW`\_V`]W`\_Ui Z  
Y]bY`YfZc`[ fY]W`Y` , Vi b[ ž`X]Y`ja `A U]`&\$&(`ghUhhZUbX`"8cfh`nY][ hY  
XUg`<Y]a UhgWxi hnfY[ ]a Ybh('žcVkc`c``Yg`g]W`bcW`]b`XYf  
5i ZghY``i b[ gd`UgY`VYZUbXž`VYfY]hg`VYa Yf`\_Ybgk YfhY`@]ghi b[ Yb  
VY]a `GW`i h`XYg`GYY`UZYbg`]b`FcghcW`"6f][ UXY[ YbYfU`i k Y  
BYf[ Yfž`XYf`?ca a UbXYi f`XYg`@UbXYg\_ca a UbXcg`A YW`YbVi f[ !  
J cfdca a Yfbž`cV`Yfj cfž`k ]Y`k ]W`h][ `XYf`<Y]a UhgWxi h`ZØf`X]Y  
@UbXYg`!i bX`6ØbXb]gj YfhY]X][ i b[ `]gh"

8 Ug`bYi ` [ Y[ fØbXYhY`F Y[ ]a Ybh`k ]fX`HY]Y`XYf`HYff]hcf]U`Yb  
F YgYfj Y`gY]b`i bX`k ]fX`b]W`h`bi f`]b`A YW`YbVi f[ !J cfdca a Yfbž  
gcbXYfb`Ui W`]b`GW`Ygk ][ !<c`ghY]b`i bX`<Ua Vi f[ `ni a `9]bgUhn  
\_ca a Yb`"ϕ`Y]bYa `BchZU``k ]fX`Yg`gck c``GW`i hn!`U`g`Ui W`

G]WYfi b[ gUi Z[ UVYb'ØVYfbY\ a Yb'i bX'\Uh'X]Y'A Ò[ `]W\_X]hž]a  
FU\ a Yb'j cb' ?UHUghfcd\Yb\]'ZY'ni 'U[ ]YfYb"

8 Ug' < Y]a UhgW i hmfY[ ]a Ybh( ' ]gh'Ui ZY]bY'Gc`ghÅf\_Y'j cb'ØVYf  
%\$\$\$'Gc'XUhYb'i bX'Gc'XUh]bbYb'Ub[ Y`Y[ hž'k cVY]'a Y\ f'U'g' - \$  
DfcnYbh'j cb']\bYb'FYgYfj ]ghYb'g]bX" '8 ]YgY'Ghfi \_hi f'gc``X]Y'5i g!  
i bX'K Y]hYfV]'Xi b[ 'gck ]Y'X]Y'9]bgUhnVYfY]hgW UZh'XYg  
< Y]a UhgW i hNYg' ]bg[ YgUa h'j YfVYggYfb" 'A ]h'XYf'5i ZghY`i b[  
X]YgYg'FY[ ]a Ybhg'k ]fX'Y]b'k Y]hYfYf'GW f]h'h' ]b'X]Y'F]W hi b[ 'Y]bYf  
j YfghÅf\_hYb'G]WYf\Y]hgUfW ]hY'\_hi f']b'8Yi hgW`UbX  
i bhYfbca a Yb"

8 ]Y'9]b`UXi b[ 'ni f' ðX]YbghghY`i b[ 'f]W hYhY'g]W`Ui W`Ub`X]Y  
A YX]Ybž'i a 'XYf'² ZZb'h]W\_X]h'Y]bYb'9]bV`]W\_ ]b'X]Y'5fVY]h'XYf  
FYgYfj ]ghYb'ni '[ Yk Å\ fYb" 'æi fbU`]ghYb'\UhYb'X]Y'A Ò[ `]W\_X]hž  
ðhYfj ]Yk g'ni 'ZØ\ fYb'i bX'XUg'; YgWY\Yb'j cf' C fh'ni  
Xc\_i a Ybh]YfYb" '8 ]YgY'² ZZi b[ '\]b'ni f'² ZZb'h]W\_X]h'niY][ h'XUg  
6YghfYVYbž'X]Y'6YXYi hi b[ 'XYg' < Y]a UhgW i hNYg' ]b'XUg  
6Yk i gghgY]b'XYf'6Øf[ Yf'ni 'fØW\_Yb'i bX'HfUbgdUfYbn'ØVYf'X]Y  
Fc``Y'XYf'FYgYfj ]ghYb'ni 'gW UZZYb"

Ni gUa a YbZUggYbX`Àggh'g]W'gU[ Ybž'XUgg'X]Y' ðX]YbghghY`i b[  
XYg' < Y]a UhgW i hmfY[ ]a YbhYg( 'b]W h'bi f'Y]b'VYXYi hYbXYg  
9fY][ b]g'Ui Z'a ]]'hÅf]gWYf'9VYbY' ]ghž'gcbXYfb'Ui W`Y]b'NY]WYb  
ZØf'X]Y'[ Ygh]Y[ YbY'K U\fbY\ a i b[ 'XYf'Fc``Y'j cb'FYgYfj ]ghYb' ]b  
XYf'; YgY`gW UZh" '8 ]Y'J YfUbghU'hi b[ ' ]a 'GW`cgg[ UfhYb'k Uf'Y]b  
Y]bXfi W\_gj c``Yg'6Y]gd]Y`XUZØfž'k ]Y'g]W`X]Y'6i bXYgk Y\ f'i bX'X]Y  
N]j ]'[ YgY`gW UZh'ni gUa a YbgW`Y]Y» Ybž'i a 'X]Y'G]WYf\Y]hZØf'U`Y  
6Øf[ Yf']b'A YW\_YbVi f[ !J cfdca a Yfb'ni '[ Yk Å\ f'Y]ghYb"

8 YhU]`g

6Ygi WYb'G]Y'i bg'Ui Z. 'a Y]b!VYf`]b"bYh