



# SOCF5103

F YgYUfVX '€ggi Yg' ]b '7 ci bgY``]b[ 'GcWU'`K cf\_

HYfa `C.bY` `##`&\$&\$



GWcc`cZGcWU`GWYbWg`#`1 BGK ``5ftg`UbX`GcWU`GWYbWg

7c f g Y G j Y f j ] Y k

'G H U Z Z 7 c b H U W h 8 Y H U ] ` g`

7 c b j Y b c f g`

B U a Y	9 a U ]`			

7 ci fgY'8YHJ]`g

7 fYX]hDc]bqg '\*`

Gi a a UfmicZ`h\Y'7 ci fgY

H\]g`Wci fgY`]b`h\Y`A UghYf`cZ7 ci bgY``]b[ `GcW]U`K cf\_`fA 7 GK E`dfc[ fUa `]b]fcXi W]g`mci `hc`fYgYUfW`UbX`  
h\Y`fc`Y`cZfYgYUfW`]b`h\Y`XYj Y`cda YbhcZ`\_bck`YX[ Y`UbX`]b`fY`U]cbg\]d`hc`W]b]W`gcW]U`k cf\_`dfUW]W`"  
Mci `k`][ U]b`Ub`i bXYfg]UbX]b[ `cZei Ub]h]U]j Y`UbX`ei U`]h]j Y`a YhcXc`c[ ]Yg`UbX`Yi d`cfY`h\Y`j U`i Yg`UbX`  
dc`]h]W`W`b]h]i hcZfYgYUfW`UW]j ]m]`]bWi X]b[ `Yj ]XYbW`VUgYX`gcW]U`k cf\_`dfUW]W`"Mci `k`][ Vi ]X`cb`h]g`  
\_bck`YX[ Y`hc`XYj Y`cd`UbX`Udd`mig\_]`g`]b`]bZcfa U]cb`]h]fUW]i]bWi X]b[ ``cW]h]b[ žYj U`i U]b[ `UbX`i g]b[  
fY`Yj Ubh]bZcfa U]cb`Zcf`h\Y`di fdcgY`cZfYgYUfW`"H\Y`]b]h]fUW]j Y`gmiY`cZ]h]UW]b[ `]b`h]g`Wci fgY`UbX`h\Y`  
Wci fgY`UggYgga Ybhd]c[ fUa `k`][`dfcj ]XY`cddcf]i b]h]Yg`Zcf`mci `hc`Z`f]h\Yf`XYj Y`cd`mci f`i bXYfg]UbX]b[ `cZ`

# 5ggYgga Ybh

## 5ggYgga YbhHUg\_g`

5ggYgga YbhHUg_	K Y][ \h	8i Y'8UH	Gh XYbh@YUfb]b[ Ci hWta Yg'5ggYggYX
5gg][ ba Ybh%	( \$i	&\$#\$' #&\$&\$' %&.\$\$' DA	%ž(
5gg][ ba Ybh&	* \$i	&( #\$( #&\$&\$' %&.\$\$' DA	&ž ž(

## 5ggYgga Ybh8YHJ]`g

5ggYgga Ybh% '5gg][ ba Ybh%

GHUfhXUH.

@Yb[ h. %) \$\$'k cfXg

8YHJ]`g. Gh XYbthg'k ]`gi Va ]hU'fYgYUfW 'YggUmfa Ul ""%) \$\$'k cfXgE'cb'U'hd]WfY'Yj Ubhthc'hY'Wci fgY a UHf]U"Gh XYbthg'k ]`fYW]j Y'k f]Hb'ZYXVUW'UbX'U'bi a Yf]W] '[ fUXY'k ]h]b'hY'b'k cf\_]b[ 'XUmg'cZ gi Va ]gg]cb""H\Y ZYXVUW'g\YYHfi Vf]Wk ]`VY'Uj U]UV'Y'hc'ghi XYbthg'UhihY'ghUfhcZ'hY'Wci fgY'gc'h.UhihYm W]b'k cf\_'hck UfXg'gdYW]ZYX'ghUbxUfXg""

5XX]h]cbU'XYHJ]`g.

5ggYgga Ybh%f%) \$\$'k cfXgE]g'k cfh' ( \$i 'UbX'jg'Xi Y'hc'VY'gi Va ]H]X'j ]U'Ya U]'UHUW'a YbhVm: f]XUm %&.\$\$'DA 'fK YY\_) E""H\]g'Ugg][ ba YbhUggYggYg '@YUfb]b[ 'Ci hWta Yg'%ž(

Gh XYbthg'k ]`gi Va ]hU'fYgYUfW 'YggUmfa Ul ""%) \$\$'k cfXgE'cb'U'hd]WfY'Yj Ubhthc'hY'Wci fgY'a UHf]U"

Gh XYbthg'k ]`fYW]j Y'k f]Hb'ZYXVUW'UbX'U'bi a Yf]W] '[ fUXY'k ]h]b'hY'b'k cf\_]b[ 'XUmg'cZgi Va ]gg]cb""H\Y ZYXVUW'g\YYHfi Vf]Wk ]`VY'Uj U]UV'Y'hc'ghi XYbthg'UhihY'ghUfhcZ'hY'Wci fgY'gc'h.UhihYmW]b'k cf\_'hck UfXg'gdYW]ZYX'ghUbxUfXg""

- =>Ybh]zmUbX'W]h]ei Y'j Uf]ci g'gmYg'cZfYgYUfW 'i gYX'hc'XYg][ b'UbX'ja d'Ya YbhU'gh XmicZ Wci bgY""b[ #hYfUdYi h]WdfUW]W
- 5dd'mihY'WcfY'Y'Ya Ybthg'cZU'fYgYUfW 'dfcW]gg]b'cfXYf'hc'XYg][ b'mci f'ck b'dfUW]W] ]bZ'fa YX fYgYUfW 'fY'Yj Ubhthc'mci f'k cf\_d'UW'gYH]b[ "

Gi Va ]gg]cb'bchYg'hc'VY'gi Va ]H]X'j ]U'Ya U]'UHUW'a Ybh

Hi fb]h]b'gYH]b[ . H\]g'g'bchU'Hi fb]h]b'Ugg][ ba Ybh

5ggYgga Ybh& '5gg][ ba Ybh&

GHUfhXUH.

@Yb[ h. &) \$\$'k cfXg

8YHJ]`g. Gh XYbthg'k ]`gi Va ]hU'fYgYUfW 'YggUmfa Ul ""&) \$\$'k cfXgE'cb'U'hd]WfY'Yj Ubhthc'hY'Wci fgY

a UHYf]U""Gh XYbHg'k ]"fYVW]j Y'k f]Hb'ZYXVUW'UbX'U'bi a Yf]WU' [ fUXY'k ]h]b'Hyb'k cf\_]b[ 'XUmg'cZ  
gi Va ]gg]cb""H\Y'ZYXVUW'g\YYHfi Vf]Wk ]"VY'Uj U]UV'Y'hc'gh XYbHg'UhihY'ghUfhcZhY'Wci fgY'gc'h UhihYm  
WUb'k cf\_'hc'k UfXg'gdYVW]ZYX'ghUbxUfXg""H\]g' ]g'hY'Z]bU'UggYgga YbhZcf'h]g'Wci fgY'Zcf'UHY'bxUbW  
di fdcgYg

5XX]h]cbU'XYHJ]g.

5gg][ ba Ybh&'f&) \$\$'k cfXgE' ]g'k cfh' \*\$i' UbX' ]g'hc' VY'gi Va ]HXY'j ]U'Hi fb]hb'UbX'Ya U]'UHUW'a YbhVm  
: f]XUm%&.\$\$'DA 'fK YY\_'%\$E'Vm\$) .\$\$'DA "'H\]g'Ugg][ ba YbhUggYggYg'@YUfb]b[ 'Ci hW'a Yg'&Z ž

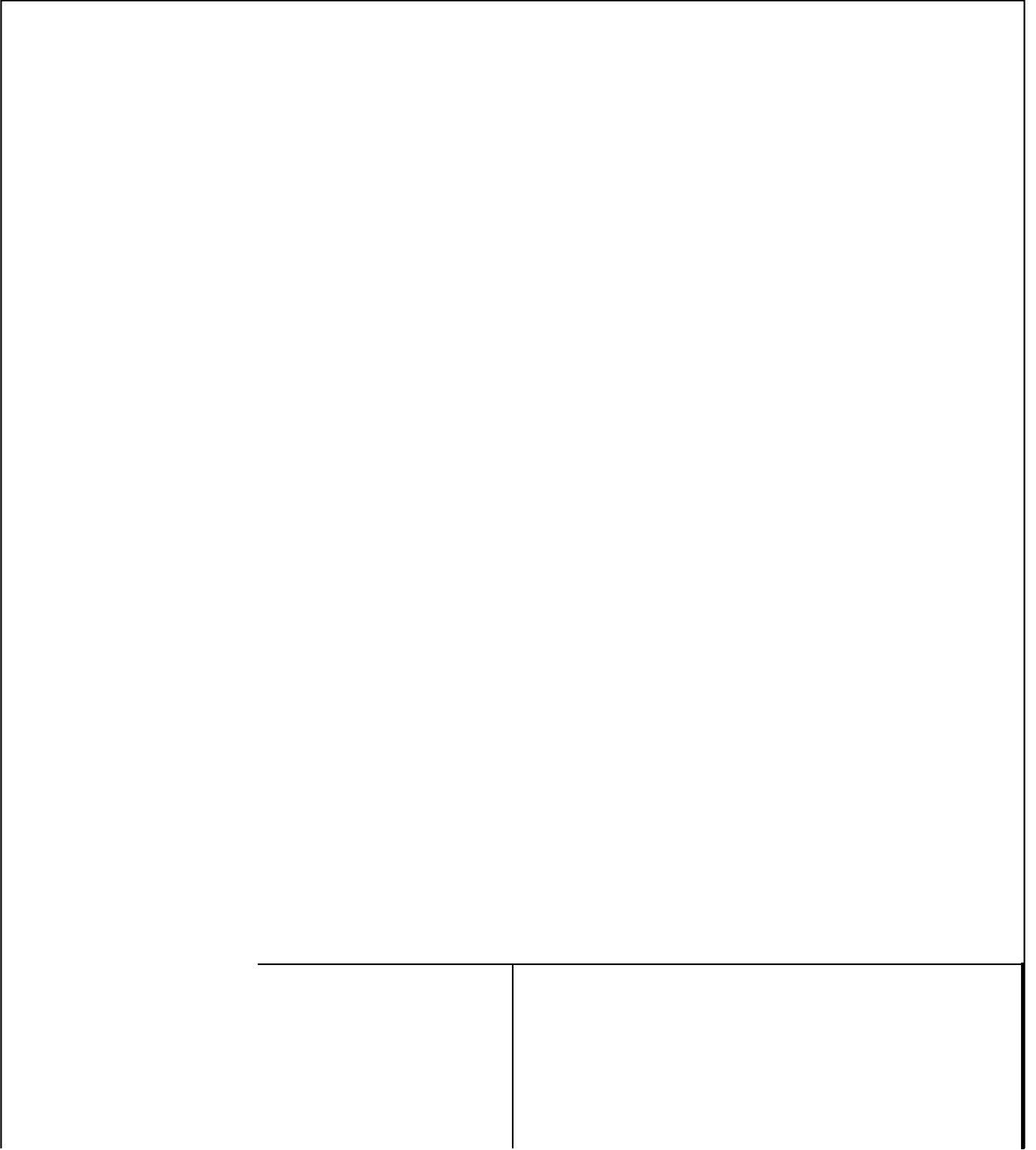
Gh XYbHg'k ]"gi Va ]hU'fYgYUfW'YggUmifa Ul ""&) \$\$'k cfXgE'cb'U'hc'd]WfY'Yj Ubh'hc'hY'Wci fgY'a UHYf]U""

Gh XYbHg'k ]"fYVW]j Y'k f]Hb'ZYXVUW'UbX'U'bi a Yf]WU' [ fUXY'k ]h]b'Hyb'k cf\_]b[ 'XUmg'cZgi Va ]gg]cb""H\Y  
ZYXVUW'g\YYHfi Vf]Wk ]"VY'Uj U]UV'Y'hc'gh XYbHg'UhihY'ghUfhcZhY'Wci fgY'gc'h UhihYmWUb'k cf\_  
hc'k UfXg'gdYVW]ZYX'ghUbxUfXg""

H\]g' ]g'hY'Z]bU'UggYgga YbhZcf'h]g'Wci fgY'Zcf'UHY'bxUbW' di fdcgYg

- 5f]W'UH' hY'fY'U]cbg\ ]dg'VYhk YYb'gcW]U'k cf\_'dfUW]W'UbX'fYgYUfW'UbX'Yj ]XYbW'!VUgYX  
dfUW]W'f96DŁ
- @cWUHz'Yj U'i UH'UbX'i gY'fY'Yj Ubh]bZcfa U]cb'Zcf'hY' di fdcgY'cZfYgYUfW' ]b'dfUW]W'Wc'bhY'lg'
- 5dd'mihY'WcfY'Y'Ya Ybhg'cZU'fYgYUfW' dfcW'gg' ]b'cfXYf'hc'XYg][ b'mci f'ck b'dfUW]W' ]bZcfa YX  
fYgYUfW'fY'Yj Ubh'hc'mci f'k cf\_'d'UW'gYH]b[ "

Gi Va ]gg]cb'bcHY'g'hc' VY'gi Va ]HXY'j ]U'Hi fb]hb'UbX'Ya U]'UHUW'a YbhVm: f]XUm%&.\$\$'DA 'fK YY\_'%\$E'Vm



		UbX'X]gWci fgY'UbU'm]g/gcWU'a YX]U'Ug'U'gci fVW'cZ i gYZ'`ei U']hUj Y'XUHU''9I Ua d'Yg'cZdfUW]VW ]bZcfa YX'fYgYUfVX' d'fc'YWg' i g]b[ 'hYgY'a YhcXg
K YY_*. '&' 'A UfVX '! '&+ A UfVX		K YY_*. '5 a^STadSf[hWbSdf[U]bSfack SbbdaSUZWé fa dWéVSDJZ` SUf[a` dWéVSDJZ S` V WfZ` aYcSbZk  K \UhXc'k Y'a YUb'Vm'DfUW]VW' bZcfa YX'F YgYUfVX' / Ybgi f]b[ 'dUf]V]dU]cb'cZdfUW]h]cbYfg'UbX'gYfj ]W i gYfg']g'[ Ybi ]bY/YI Ua d'Yg'cZdfUW]VW' ]bZcfa YX fYgYUfVX' d'fc'YWg
K YY_+. ' \$' 'A UfVX '! " 5df]`		K YY_+. 'C gS` f]fSf[hW? WfZaVa`aYk` Zai _ S` kl Zai` aXW' Zai _ gUZ S` V g` VWdi ZSf U[d]g_ eFS` UWé  H\Y'Z'Ug]V] ]hmcZhY'YI dYf]a YbH'`a YhcX' ]b dfUW]VW' gYh]b[ g/9I dYf]a YbH' /ei Ug]! YI dYf]a YbH' UbX'bcbyI dYf]a YbH'`XYg][ b/F 7 Hg ]b' dfUW]VW VcbhYI hg/hY'ei Ub]h]h] Y'fYgYUfVX' d'fc'VWgg  ,
K YY_ , . '* '5df]'! '%\$ '5df]`		K YY_ , . '? [j W ? WfZaVe S` V A gfUa_ Wé D WéVSDJZ i ZSf VaWé fZ [e fW^ge STagf bcdSUF[UM  I bXYfghUbX]b[ 'ci hWca Yg' ]b' dfUW]VW' /a cb]rcf]b[ UbX'UXa ]b]ghU]cb'XUHU`-i gYg'UbX' ]a ]h]h]cbg/ YI Ua d'Yg'cZa ]I YX'a YhcXg'fYgYUfVX
K YY_- . '% '5df]'! '%+ 5df]`		K YY_- . '7 hS'gSf]a` XadEaU]S^I` ad] BcdSUF[UW Zai Va i W]` ai S` [ fWchW f]a` [e WXXXUf]hW  <ck `Xc'k Y'UggYgg'k cf_Yf'UbX'W]Yb]g'dYfWdh]cbg cZ'k \Uhk cf_g'z'Zcf'k \ca 'UbX'`i bXYf'k \Uh W]fW a g]UbW]g'3'9I Ua d'Yg'cZY] U'i U]cb'gh X]Yg
K YY_%. '&\$' '5df]'! '&( 5df]`		K YY_%. '? Ws` [ YXg^`= ` ai` WYW7j UZS` YW  <ck `Xc'k Y'a U_Y'gi fY'fYgYUfVX' ]g'a YUb]b[ Z `m hfUbg'UhYX' ]b]c'gcW]U`k cf_`dfUW]VW' Wéi bgY` ]b[ VcbhYI hg/7 cbZ'fYbW' d'fYgYb]h]cbgž 7 YUf]b[ \ci gYgž'fYdcg]rcf]Yg'UbX'fYgYUfVX' \i Vg

# F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

H\Y`fYWca a YbXYX`hI hZcf`h]g`Wci fgY`]g`A Ufh]b`K YVVYf` 5dd`m]b[ `F YgYUfW`9j ]XYbW`]b`GcW]U`  
K cf`\_DfUW]W` f&\$%& E`di V`]g\YX`VmDU`[ fUj`Y`A UW` ]`Ub"

7\UdhYfg`Zca`h]g`hI hk ]`VY`]ghYX`Ug`Wca di `gcfmfYUX]b[ `Vi hk ]`U`gc`VY`gi dd`Ya YbhYX`VmchYf`  
fYgci fWg`i d`cUXYX`]b`A ccX`Y"

H\Y`I BGK` `6cc\_g\cd` \Ug`cfXYfYX`]b`hY`hI hZcf`di fWUgY"

# F YWca a YbXYX`F Ygci fWg

5XX]h]cbU`fYUX]b[ g

Gh XYbtg`g\ci `X`bchZY`"]a ]hY`tc`hY`hI hUbX`hY`"]hYfUhi fY`dfcj ]XYX`]b`A ccX`Y`j ]U`@Y[ Ubhfc"

H\YfY`UfY`bi a Yfci g`UXX]h]cbU`fYUX]b[ g`Uj`U]UV`Y`Zcf`i gY`]b`GC 7: ) %\$` `UggYgga YbhUg\_g`]b`hY`I BGK`  
]VfUfm]g`e`i fbU`Wc`"YW]cb"

E fgVW fe eZag`V TWS\_ [fSdi [fZ fZWG@E I >[TdSk I WTe[fW [\hfd.##k k k`"\]VfUfm`i bgk "YXi "Ui ž](#)

Zmci ` \Uj`Y`bchi gYX`h]g`dfYj ]ci g`mžmci `k ]`VYbYZ]hZca`VYWca ]b[ `ZJa ]]Uf`k ]h` ; cc[ `YGWc`Uf`  
[f\hfd.##gWc`Uf`\[cc\[ `Y`Wca`\\_E`Ug`U`\\_YmgYUfW`Yb\[ \]bY`Zcf`UWXYa \]Wdi V`\]W\]h\]cbg`UbX`fYdcfmg`"Mci `W\]b`gYh`  
i d`hY`dfYZfYbWg`tc`\]b`\\_tc`hY`I BGK` `@\]VfUfm\]Yj Yb`k` \Yb`mci `UfY`bchcb`W\]a di g"](#)

; c`tc` ; cc[ `Y`GWc`Uf2`gYh]b[ g2`]VfUfm`]b\_gžUbX`YbhYf`"I b] Yfg]hmcZBYk `Gci h`K`U`Yg`]b`hY`Vci `Zcf`  
"@]VfUfm]"

Mci `W]b`g][ b`i`d`Zcf`HUV`Y`cZ7`cbhYbtg`fHC 7`E`5`Yfmg`Zca`hY` \ca`YdU[ Yg`cZfY`Yj`Ubh`e`i`fbU`gž`tc`fYW]j`Y`  
Ub`Ya`U]`k` \YbYj`Yf`bYk`Ufh]WYg`UfY`di`V`]g\YX`]b`h`Uh`e`i`fbU`" >ci`fbU`k`YVg]hY`g`k` ]`cZ`Yb`W]ffm`  
]bZ`fa`U]cb`cb`hY`a`cghj`Yk`YX`UbX`a`cghW]hYX`Ufh]WYg`hY`gY`UfY`\_]Y`mhc`VY`]b`hY`fY`gh]b[ `UbX`cZ`Yb`  
]bZi`Ybh]U`Wc`bhf]Vi`h]cbg"; cc[ `Y`GWc`Uf`k` ]`U`gc`dc]bhime`i`tc`Ufh]WYg`h`Uh` \Uj`Y`W]hYX`U`d`Ufh]W`Uf`Ufh]WY`  
UbX` \YbW`k` ]`VY`fY`UhYX`tc`hY`tc`d]W

5`cb[ g]XY`hY`hI`h`hYfY`UfY`c`hYf`j`U`i`UV`Y`fYgci`fWg`Zcf`GC 7: ) %\$` `UggYgga YbhUg\_g.



HYUWk]b[ '9j U'i Uhcb'UbX' a dfcj Ya Ybhf7 5H9 4'dfcW'gg" "bZcfa U`ZYXVUW`UbX`WUgg! [ YbYfUHx  
ZYXVUW`UfY`U'gc`ja dcfhUbh'hc'cb![ c]b[ 'Wci fgY`XYj Y`cda Ybh`Gh XYbhZYXVUW`\_jg`hU`Yb`gYf]ci g`miUbX  
gi VghUbh]U`ja dfcj Ya Ybhg`UfY`a UXY`hc`U`'Wci fgYgZ]bWm X]b[ 'GC 7: ) %\$' `VUgYX`]b`dUf'icb`gi Wk`ZYXVUW`"

G][ b]Z]WUbhWkUb[ Yg`hc`hY`Wci fgY`k ]`VY`Wca a i b]WUhX`hc`gi VgYei YbhWc`c`f`hg`c`Z`gh XYbhg`hU`]b[ `hY  
Wci fgY`": cf`YI Ua d`Yz`U`V`Yb`XYX`Y`Ufb]b[ `UW]j ]]m]UbX`hY`]bWm`g]cb`c`Z`Ub`]bW]YUgYX`bi`a`VYf`c`Z`df`UW]W  
]bZcfa YX`fYgYUfW`dfc`Y`Wg`]b`fYgdcbgY`hc`gh XYbhZYXVUW`dfcj ]XYX`Vm`hY`Ughf&\$\$% E`GcW]U`K`cf`  
7`ci`bgY`"]b[ `gh XYbhWc`c`fh`

a U[ Y`7`fYX]h

H\Y`ja U[ Yg`cb`h`]g`g]h`c`ZYfYX`i`bXYf`U`7`fYU]j`Y`7`ca`a`cbg`"]W]bgY

7F 7CG

7F 7CG`Dfcj ]XYf`7`cXY`.\$\$\$`-` ;

Dck YfYX`Vm

Gi Va ]gg]cb`cZ5ggYgga YbhHUg\_g

Gi Va ]gg]cb`cZ5ggYgga YbhHUg\_g

Hi fb]hb`Gi Va ]gg]cb

≠mci`YbWci`bHYf`U`dfcV`Ya`k`Yb`U`HYa`dh]b[`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybh`h`fci`[`\`Hi`fb]hb`z`d`YUgY`  
HY`Yd`cbY`9I`HYfbU`Gi`ddcfhcb`-`,`)`'`'`'`%cf`Ya`U]`h`Ya`cb`YI`HYfbU`HY`hgi`ddcfh4`i`bgk`"YXi`"Ui`"Gi`ddcfh`  
`ci`fg`UfY`,`.\$\$Ua`-`%\$.\$\$da`cb`k`YY`XUmg`UbX`-`.\$\$Ua`-`).\$\$da`cb`k`YY`YbXg`fI`\*)`XUmg`U`mY`UfL`≠mci`  
UfY`i`bUV`Y`hc`gi`Va`]hmc`i`f`Ugg][`ba`YbhXi`Y`hc`U`ZUi`hik`]h`Hi`fb]hb`mc`i`a`Um`Udd`mi`Zc`f`Ub`YI`HYbg]cb`z`Vi`hmc`i`  
a`i`gh`fY`hU]b`mc`i`f`h]W`Yhbi`a`VYf`Zca`9I`HYfbU`Gi`ddcfhU`cb[`k`]h`Ubmc`h`Yf`fY`Yj`Ubh`Xc`W`a`Ybhg`L`hc`  
]bWi`XY`Ug`Yj`]XYbW`hc`gi`ddcfhmc`i`f`YI`HYbg]cb`Udd`]W]h]cb"≠mci`Ya`U]`9I`HYfbU`Gi`ddcfhmc`i`k`]`  
Ui`hca`U]W]m`fYW]j`Y`U`h]W`Yhbi`a`VYf`z`Vi`h]Zmci`HY`Yd`cbY`mc`i`k`]`b`Y`Y`X`hc`gd`Y`W]W]m`Ug`\_`Zc`f`cbY`  
Hi`fb]hb`U`gc`dfcj`XYgi`dXU`HY`g`cb`h`Y]f`gm`gh`Ya`gh`U`h`g`cb`Hk`]hYf"

;`YbYfU`m`z`UggYgga`YbhHUg\_g`a`i`gh`VY`gi`Va`]hY`X`Y`Y`W`f`cb]W]m`j`]U`Y]h`Y`f`Hi`fb]hb`cf`U`A`cc`X`Y`  
Ugg][`ba`Ybh`h`h`]bg`h`Ub`W`g`k`Y`f`Y`h`h`g`]g`b`chid`cgg]V`Y`z`]h`k`]`V`Y`g`h`U`h`X`cb`mc`i`f`W`ci`fg`Y`g`A`cc`X`Y`g`]h`k`]h`  
U`h`f`b`U`h]`Y`gi`Va`]gg]cb`XY`hU]`g"

:`cf`]b`Zc`fa`U]cb`cb`\`ck`hc`gi`Va`]hUgg][`ba`Ybhg`cb`]bY`j`]U`A`cc`X`Y`.\`h`tdg`#`gh`XYbh`i`bgk`"YXi`"Ui`#`ack`!  
gi`Va`]hUgg][`ba`Ybh`a`cc`X`Y`

5 WUXYa ]W<cbYghmiUbX`D`U[ ]Uf]ga

D`U[ ]Uf]ga `]g`i`g]b[ `h`Y`k`cfXg`cf`]XYUg`cZc`h`Yfg`UbX`dfYgYbh]b[ `h`Ya`Ug`mci`f`ck`b" `#WUb`hU`Y`a`Ubm  
Zcfa`gž`Zca`XY`]VYfU`h`W`Y`U`h]b[ `h`U`W`Y`X`Y`b`U`m`W`d`m]b[ `Zca`U`gci`f`W`k`]h`ci`h`U`W`b`ck`Y`X[ `Ya`Y`b`h`



5 WUXYa ]WbZcfa Uhcb`

: cfYggYbhU`ghi XYbh]bZcfa Uhcb`fY`Uh]b[ `rc.

- fYei Ygh`ZcfYI hYbg]cb/
-