



SOCW4003

5Xj UbWX'GcWU`K cf_'DfUWjW`A YhcXg

HYfa `CbY`#`&\$&%



7ci fgY'8YHJ]`g

7fYX]hDc]bHg`*`

Gi a a UfmicZ'hY'7ci fgY

Mci`k`j`gh`XmU'gdYW]Wa`YhcX'cZgcW]U`k`cf`_dfUW]W`]b!XYdH`"5g`dUfhcZUXj`UbVWX'ghi`Xm]b`hY`Z]Y`X'cZ`GcW]U`K`cf`_z'h]g`Wci`fgY`dfcj`]XYg`mci`k`]h`hY`cddcfh`b]mhc`'XYdYb'mci`f'i`bXYfghUbX]b[`'UbX`WUdUW]mhc`dfUW]W`]b`U`[`]j`Yb`UgdYW]cZUXj`UbVWX'gcW]U`k`cf`_a`YhcXg`"Hi`]hc`b`UbX`UggYgga`Ybh]bWi`XYg`k`cf`_b[`]bhYfUW]j`Y`mk`]h`Yi`Ua`d`Yg`cZdfUW]W`"Gh`XYbhidfYZYfYbW]g`UfY`hU`Yb`]bhc`UW]ci`bh]b`YghUV`]g\]b[`'hY`fUb[`Y`cZUXj`UbVWX'a`YhcXg`h`UhUfY`Wcbg]XYfYX`YUWX`mYUf`"

7ci fgY'@YUfb]b[`'Ci`hWca`Yg

%`7`cbW]dhi`U`]gY`U`gY`YW]X'gcW]U`k`cf`_dfUW]W`a`YhcX`"
&`9I`d`U]b`fY`Yj`UbhidfUW]W`h`Ycf]Yg`]b`XYdH`"
'`"5`fh]W`UHY`hY`fY`Uh]cbg\]d`VYhk`YYb`g_]`g`UbX`_bck`YX[`Y`fY`Yj`Ubhlc`U`gY`YW]X'gcW]U`k`cf`_`dfUW]W`a`YhcX`"
(`"GY`YWi`UbX`Udd`miU`gcW]U`k`cf`_a`YhcX`hc`U`ghU]hX`dfUW]W`]ggi`Y`cf`dfcV`Ya`"

HYUWX`]b[`'GhfUhr[`]Yg`

H\]g`Wci`fgY`cZYfg`gh`XYbHg`]bgrfi`W]cb`]b`hY`h`YcfmiUbX`dfUW]W`cZU`gY`YW]X'gcW]U`k`cf`_dfUW]W`a`YhcX`"H\Y`k`YY`_mZcfa`Uh]g`U`"!`ci`f`WUgg`h`UhfYei`]fYg`h`Y`UW]j`Y`dUfh]W]dUh]cb`cZU`gh`XYbHg`UbX`Wca`V]bYg`U`[`i`]YX`fYUX]b[`dfc[`fUa`z`h`YcfmgYa`]bUfg`UbX`dfUW]W`k`cf`_g\cdg`"

5ggYgga Ybh

5 HbXUbW F Yei JfYa Ybhg

HAY'GWcc'cZGcWU'GWYbWYg'YI dYWg'hUhg'h XYbhg'k]'UHYbX'UbX'dUfhWdUHY'UWYj'Y'm]b'%'\$i'cZ'YUfb]b['UbX'hUWk]b['UWYj'JhYg'"A UbXUrcfmUHYbXUbW'cZWUggYg'Zcf'h]g'Wci'fgY'Jg'dUfhcZHY UWWYX]hU]cb'fYei JfYa Ybhg'Zcf'hY'6GK'fk'cbgk'dfc[fUa "'HAY'Wci'fgY'Jg'XYg][bYX'hc'dfcj]XY'YggYbh]U'YUfb]b['Jb'YUW'gYa]bUfz'h]g'a YUbg'mci 'a i ghUHYbX'U'HY'gYa]bUfg"

Zmci 'UFY'i bUVY'hc'UHYbX'U'WUggZ'mci 'a i ghYa U]'mci f'Wci'fgY'hi'hc'f'UbX'hY'Wci'fgY'Wcbj'Ybcf'Uhmci f'YUf'YghWcbj'Yb]YbW'"Zmci 'UHYbX'Ygg'hU'\$', 'cZWUggYgZ'mci 'a UmVY'fYZ'gYX'Z]bU'UggYgga'Ybh'h]g'a YUbg'hUh]Zmci 'Xc'bchUHYbX'U'h'YUgh, \$i'cZdcgg]VY'WUggYg'mci f'Z]bU'Ugg][ba'Ybhc'f'YI'Ua' 'a Um'fYW'j'Y'U'a'Uf_cZnYfc'"Mci 'UFY'fYgdcbg]VY'Zcf'_YYd]b['fUW'cZmci f'UHYbXUbW'UbX'WcbUW]b['mci f'Wci'fgY'Wcbj'Ybcf'f'UbY'A'ck'`L]a'a'YX]UHY'm]Zmci 'UFY'WcbW'fbYX'UVci'hmci f'UHYbXUbW'fYW'fX'UbX']hg]a'dUW'icb'mci f'UV']]mhc'Wca'd'YH'mci f'Wci'fgY'gi'WY'ggZ'`m': cf'hY'di'fdcgY'cZUHYbXUbW'a'cb]hc'f]b['z'hY'Z]bU'UggYgga'Ybh'Zcf'h]g'Wci'fgY'Jg'hY'Gi'Vg]Ubh]Y'5gg][ba'Ybhk'cf'h'*\$i'cZmci f'c]YfU''[fUXY'Zcf'h]g'Wci'fgY'"H]g'Jg'hY'UggYgga'Ybh]fYa'hU'k]'VY'[fUXYX'UhinYfc']Zmci 'Xc'bchia'YH'hY'UHYbXUbW'fYei JfYa Ybh'

7 ci fgY'GWYXi `Y

[J Jk WUgg'ha YHUVY](#)

Hja YHUV'Y'

8 UHY	HmdY	7 cbhYbh
K YY_% %) : YVfi Ufm! %- : YVfi Ufm	GYa]bUf	7CI BG9@@B; 'A 9H<C 8G'5B8 F 9G-@9B 7 9'9@97H=9'f7 A F L'Hcd]W
	GYa]bUf	GC 7 -5@'89J 9@C DA 9BH'9@97H=9'fGC 7 89J L'Hcd]W
K YY_&.&&: YVfi Ufm! *& : YVfi Ufm	GYa]bUf	7CI BG9@@B; 'A 9H<C 8G'5B8 F 9G-@9B 7 9'9@97H=9'f7 A F L'Hcd]W
	GYa]bUf	GC 7 -5@89J 9@C DA 9BH'9@97H=9'fGC 7 89J L'Hcd]W
K YY_' : %A UFW !') A UFW	GYa]bUf	7CI BG9@@B; 'A 9H<C 8G'5B8 F 9G-@9B 7 9'9@97H=9'f7 A F L'Hcd]W
	GYa]bUf	GC 7 -5@89J 9@C DA 9BH'9@97H=9'fGC 7 89J L'Hcd]W
K YY_(: ; 'A UFW !'%& A UFW	GYa]bUf	7CI BG9@@B; 'A 9H<C 8G'5B8 F 9G-@9B 7 9'9@97H=9'f7 A F L'Hcd]W
	GYa]bUf	GC 7 -5@89J 9@C DA 9BH'9@97H=9'fGC 7 89J L'Hcd]W
K YY_) : %) 'A UFW !'%- A UFW	GYa]bUf	7CI BG9@@B; 'A 9H<C 8G'5B8 F 9G-@9B 7 9'9@97H=9'f7 A F L'Hcd]W
	GYa]bUf	GC 7 -5@89J 9@C DA 9BH'9@97H=9'fGC 7 89J L'Hcd]W
K YY_* : &&'A UFW !' *& A UFW	F YUX]b[Bc:7`Ugg
	F YUX]b[Bc:7`Ugg
K YY_+ : &- 'A UFW !' & 5df]	GYa]bUf	7CI BG9@@B; 'A 9H<C 8G'5B8 F 9G-@9B 7 9'9@97H=9'f7 A F L'Hcd]W
	GYa]bUf	GC 7 -5@89J 9@C DA 9BH'9@97H=9'fGC 7

		89J L'Hcd]W
K YY_ ; .) '5df]'!' - '5df]'	GYa]bUf	7CI BG9@@B; 'A 9H<C 8G'5B8 F 9G-@-9B 79'9@97H=9''f7A F L'Hcd]W
	GYa]bUf	GC 7 5@89J 9@C DA 9BH'9@97H=9'fGC 7 89J L'Hcd]W
K YY_ ' . %& 5df]'!' %* 5df]'	GYa]bUf	7CI BG9@@B; 'A 9H<C 8G'5B8 F 9G-@-9B 79'9@97H=9''f7A F L'Hcd]W
	GYa]bUf	GC 7 '89J '! 'DfUW]W 'YI Ua d'Y''

F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

F YUX]b[g`UbX`fYgci fWg`Zcf`h]g`Y`YWj`Y`UFY`gdYWZ]YX`cb`h`Y`gYWj]cb`cZ`h`Y`A`ccX`Y`dU[Y`Zcf`h]g`Y`YWj`Y`

F YWca a YbXYX`F Ygci fWg

F YUX]b[g`UbX`fYgci fWg`Zcf`h]g`Y`YWj`Y`UFY`gdYWZ]YX`cb`h`Y`gYWj]cb`cZ`h`Y`A`ccX`Y`dU[Y`Zcf`h]g`Y`YWj`Y`

7ci fgY`9j U`i Uh]cb`UbX`8Yj`Y`cda`Ybh

H\]g`Wci fgY`]g`Yj U`i UhX`i`g]b[`gh`XYbh`YUfb]b[`fyj`Jk`gZ`WUgg`ZYXVUW`UbX`h`Y`A`mI`dYf]YbW`gi`fj`Ym`fYgi`hg`"Gh`XYbhZYXVUW`]g`j`U`i`YX`Ug`dUfhcZ`h`Y`cb[`c]b[`Wci fgY`fYj`Jk``UbX`XYj`Y`cda`Ybh`H\Y`cZYfYX`Y`YWj`Yg`]b`h]g`Wci fgY`a`Umj`UfmZ`ca`mYUf`hc`mYUf`UbX`Y`YWj`Y`gdYWZ]WZYXVUW`Ug`VYYb`i`gYX`hc`a`U`Y`W\Ub[`Yg`k`\]W\`Uj`Y`]bW`XYXZ`VUgYX`cb`dfYj`]ci`g`Yj`U`i`Uh]cbg`!`W\Ub[`Yg`\Uj`Y`VYYb`a`UXY`hc`UggYgga`Ybh]Ug`g`UbX`Z]bY`!`h`b]b[`cZ`WUgg`YI`YfW]gYg`"H\Ub`_`mci` `]b`UXj`UbW`Zcf`mci`f`dUfh]W]dUh]cb`]b`h]g`dfc`Wgg`"

Gi Va]gg]cb`cZ5ggYgga YbhiHUg_g

Hi fb]h]b`Gi Va]gg]cb

Ʒmci`YbWci bHYf`U`dfcV`Ya`k`Yb`UH`Ya`dh]b[`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybhi`h`fci`[`\`Hi`fb]h]b`z`d`Y`Ug`Y`
HY`Yd`cb`Y`9I`HY`fb`U`Gi`ddc`fh`cb`-`,`)`"``"``%`cf`Ya`Uj`h`Ya`cb`YI`HY`fb`U`HY`hgi`ddc`fh`4`i`bgk`"YXi`"Ui`"Gi`ddc`fh`
`l`ci`fg`UfY`,`.\$\$Ua`-`-%\$.\$\$da`cb`k`YY`XUmg`UbX`-`.\$\$Ua`-`).\$\$da`cb`k`YY`YbXg`fI`*)`XUmg`U`mY`UfI`Ʒmci`
UfY`i`bUV`Y`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybhi`Xi`Y`hc`U`Zi`h`k`]h`Hi`fb]h]b`mci`a`Um`Udd`m`Zc`f`Ub`YI`HY`bg]cb`z`Vi`hmc`i`
a`i`gh`fY`h]b`mci`f`h]W`Y`hbi`a`VY`f`Z`ca`9I`HY`fb`U`Gi`ddc`fh`f`U`cb[`k`]h`Ub`mci`h`Y`f`fY`Yj`Ub`h`Xc`W`a`Yb`hg`L`hc`
]b`Wi`XY`Ug`Yj`]X`Y`b`W`hc`gi`ddc`fh`mci`f`YI`HY`bg]cb`Udd`]W`h]cb`"Ʒmci`Ya`Uj`9I`HY`fb`U`Gi`ddc`fh`mci`k`j`
Ui`hc`a`U`h]W`m`f`Y`W`j`Y`U`h]W`Y`hbi`a`VY`f`z`Vi`h]Z`mci`HY`Yd`cb`Y`mci`k`j`b`Y`Y`X`hc`gd`Y`W`Z]W`m`Ug`_`Zc`f`cb`Y`
Hi`fb]h]b`U`gc`d`fc`j`]X`Y`gi`d`X`U`h`g`cb`h`Y`j`f`gm`gh`Ya`g`h`U`h`g`cb`Hk`]h`Y`f`"

;`Yb`Y`f`U`m`z`Ugg`Y`gga`Yb`hi`U`g`_`g`a`i`gh`V`Y`gi`Va`]h`Y`X`Y`Y`W`f`cb]W`m`j`]U`Y`]h`Y`f`Hi`fb]h]b`cf`U`A`cc`X`Y`
Ugg][`ba`Yb`h`i`h`]b`gh`U`b`W`g`k`Y`f`Y`h`g`]g`b`ch`d`c`gg]V`Y`z`]h`k`j`V`Y`g`h`U`h`X`cb`mci`f`W`ci`fg`Y`g`A`cc`X`Y`g`]h`k`]h`
U`h`Y`fb`U`h]`Y`gi`Va`]gg]cb`X`Y`h]g`"

:`cf`]b`Z`fa`U`h]cb`cb`l`ck`hc`gi`Va`]h`Ugg][`ba`Yb`hg`cb`]b`Y`j`]U`A`cc`X`Y`.\`h`d`g`#`gh`XY`b`h`i`bgk`"YXi`"Ui`#`ck`!
gi`Va`]h`Ugg][`ba`Yb`h`a`cc`X`Y`"

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

D`U[]Uf]ga `]g`i g]b[`hY`k cfXg`cf`]XYUg`cZc`hYfg`UbX`dfYgYbh]b[`hYa `Ug`mci f`ck b" `#WUb`hU`Y`a Ubm
Zcfa gZ`Zca `XY`]VYfU`h`V`X`Y`U`h]b[`h`U`W`Y`X`Y`b`h`U`m`W`c`d`m]b[`Z`ca `U`gci f`W`k]h`ci h`U`W`b`ck `Y`X[`Y`a `Y`b`h`

I B G K ` [fci dg`d`U[]Uf]ga `]b`h`c`h`Y`Z`c`ck]b[`W`U`h`Y` [cf]Yg.

7 cdm]b[.`i`g]b[`h`Y`g`U`a `Y`c`f`j`Y`f`m`g]a]U`f`k`c`f`X`g`h`c`h`Y`c`f][]b`U`h`Y`h`c`f`]X`Y`U`k]h`ci h`U`W`b`ck `Y`X[]b[`h`Y`

- i bXYfghUbx'mci f'f][\hg'UbX'fYgdcbg]V]h]Yg'Ug'U'gh XYbhUhl BGK
- VY'Uk UfY'cZd'U[]Uf]ga ž'Wcdmf][\hžI BGK 'Gh XYbh7cXY'cZ7cbXi W'Ubx'5Ww'dhUV'Y'I gY'cZ I BGK '⇒H'F Ygci fW'g'Dc`]Wn
- VY'Uk UfY'cZh'Y'ghUbxUfXg'cZVY\Uj]ci f'YI dYW'X'cZYj Yfmcby'j]b'h'Y'I BGK 'Wca a i b]m
- `cWJh'gYfj]Wg'UbX'j]bZcfa Uh]cb'UVci hl BGK 'UbX'I BGK '@]VfUfm

Gca Y'cZh'YgY'UfYUg'k]`VY'ZJa]]Uf'hc'mci ž'ch'Yfg'k]`VY'byk "; U]b]b['U'gc`X'i bXYfghUbx]b['cZU`h'Y fY'UH'X'UgdYW'g'cZ9@G9'k]`Y'd'mci 'a U_Y'h'Y'a cghcZmci f'gh X]Yg'Uhl BGK ""

[\hd. #gj V'YWf i \]XYg" \]VfUfm'i bgk "YXi "Ui #'\]gY#JVci h' \]gY](#)

5 WUXYa]WbZcfa Uh]cb

: cfYggYbh]U`gh XYbh]bZcfa Uh]cb fY`Uh]b[`rc.

- fYei Yghg`Zcf`YI H`bg]cb/
- `UhY`gi Va]gg]cbg`[i]XY`]bYg/
- fYj]Yk `cZa Uf_g/
- I BGK `<YU`h`UbX`GUZY`mdc`]WYg/
- YI Ua]bUh]cb`dfcW`Xi fYg/
- gdYW]U`W`bg]XYfUh]cb`]b`hY`Yj YbhcZ]`bYgg`cf`a]gUXj Ybh fY/
- gh XYbhYei]mUbX`X]gUV`]m/
- UbX`c`hYf`YggYbh]U`UWUXYa]W]bZcfa Uh]cbz`gYY

[\fhdg.#k k k "Ufng"i bgk "YXi "Ui #W ffYbh\]gh XYbh\]UWUXYa \]W\]bZcfa Uh\]cb#dfchW`g`\[i \]XY`\]bYg#](#)

⇒ U[Y`7 fYX]h

7 fYUh] Y`7 ca a cbg`ZYY`]a U[Y.] bgd`Ug\

7F ⇒ CG

7F ⇒ CG`Dfcj]XYf`7cXY. \$\$\$- ;

5W_bck `YX[Ya YbhcZ7ci bhfm

K Y`UW_bck `YX[Y`hY`6YXY[U`dYcd`Y`k `c`UfY`hY`fUX]h]cbU`W`ghcX]Ubg`cZ`hY`UbXg`cb`k` \]W`I BGK
? Ybg]b[`rcb`W]a di g`]g`cW]hYX"