



# MMAN9002

A UghYf'cZ9b[ ]bYYf]b[ 'GW]YbW' Dfc ^YWi6

HYfa 'CbY' #'&\$&%

GWcc`cZA YWUbjWU`Ubx`A Ubi ZUW f]b[ `9b[ ]bYYf]b[ `#`I BGK `9b[ ]bYYf]b[ ]

7 ci fgY`Cj Yfj ]Yk

GHJZ`7 cbHJW`8YHU]`g

7 cbjj Yfbcffg

B Ua Y	B Ua Y % %	9a U] † †	‡ U] % V] ] m \$ %	B Ua Y % %	\$ % cb Y
	F cb`7 \ Ub	f`W Ub4 i bgk "YXi "Ui	h]g`fYW`a a YbXYX mci `Ya U]	%	

fZ \*%&E' - ' , ) ( \$- + - GWcc`C ZJWfH

7 ci fgY'8YHJ]`g

7 fYX]hDc]bhg`\*`

Gi a a UfmicZh\Y'7 ci fgY

D; `7 ci fgY`K`cf`\_Dfc`YWh]g`i`gi`U`mWc`a`d`YhYX`]b`tk`c`Wc`bgYW`hj`Y`hYfa`g`Xi`f]b[ `h\Y`"UghUWUXYa` ]WmYUf"


HYUWX]b[ 'GhfUHY[ ]Yg'

H\YfY'jg'bc'Zcfa U'hYUWX]b[ 'Vi hH\Y'ghi XYbhg'YUfb'Zca 'VcH' ]bHYfbU'UbX'YI hYfbU'gci fWg'"H\Y  
gi dYfj ]gcfZcH\Yf'UWUXYa ]Wg'UbX''UVcfUhcfm# cf\_g\cd'ghUZZUFY 'H\Y' ]bHYfbU'gci fWg'Zk \YfYUg'H\Y'@]VfUfmž  
]bHYfbYhUbX' ]bXi gHfma Ybhcfg'UFY 'H\Y'YI hYfbU'gci fWg'"H\YfY'UFY'bc'gYh'YWfi fYg'Zc'f'H'jg'Wci fgYž'Vi hU  
bi a VYf'cZk cf\_g\cdg'k ]''VY'dfcj ]XYX'hc'Ugg]ghighi XYbhg'hc'Wca d'YH' 'H\Y]f'h\Yg]g'hc'U'\[ \ 'ghUbXUfX'"5''  
k cf\_g\cdg'k ]''VY'fYWcfXYX'UbX'a UXY'Uj U]UV'Y'hc'ghi XYbhg'cb' ]bY"f"


F Ygci fWg





UggYgga YbhdYfZcfa UbWžmci 'UfY'Y'[ ]V'Y'hc'Udd'mZcf'GdYWU'7 cbg]XYfUhc'b'df]cf'hc'gi Va ]h]b[ 'Ub  
UggYgga Ybhcf'g]h]b[ 'Ub'YI Ua "

I BGK 'bck '\Ug'U': [\]h\]c'G\]h#Gi Va \]h\]f'Yžk \\]](#)W'a YUbg'hUh]Zmci 'UfY'a dhUb'YI Ua 'cf'gi Va ]hU'd]YW'cZ  
UggYgga Ybhž'mci 'UfY'XYWUf]b[ 'mci fgY'Z]hYbci [ \ 'hc'Xc'gc'UbX'WUbbch'UfY'Udd'mZcf'GdYWU'  
7 cbg]XYfUhc'b"

: cf'XYfU]g'cZUdd'm]b[ 'Zcf'GdYWU'7 cbg]XYfUhc'b'UbX'WcbX]h]cbg'Zcf'hY'Uk UfX'cZgi dd'Ya YbhUfm  
UggYgga Ybhž'd'YUg'gY'Y'hY'j]bZcfa Uhc]b'cb'I BGK 'g'[GdYWU'7 cbg\]XYfUhc'b'dU\]Y"](#)

D'YUgY'bc'hY'hUhgh XYbhg'k ]'bchVY'fYei ]fYX'hc'dfcj ]XY'UbmXcW a YbhUfmYj ]XYbW'hc  
gi ddcfhUVgYbW'g'Zca 'UbmWUggYg'a ]ggYX'VYWU] gY'cZ7CJ -8!%- 'di V']W\YU'h'a YUgi fYg'gi W'Ug  
]gc'Uh]cb" I BGK 'k ]'bchVY'j]bg]gh]b[ 'cb'a YX]W'Wf]h]Z]W]hYg'Zca 'UbmcbY'XYa YX'hc'VY'U'dcg]h]Y'WUgYž  
cf'k \Yb'hYm\Uj Y'fYVčj YfYX" 'Gi W'Wf]h]Z]W]hYg'UfY'X]Z]W'h'hc'cVh]b'UbX'di hUb'i bbYW'ggUfm]gh]U]b'cb  
gh XYbhg'UbX'a YX]W'gh]UZZ'

5dd']W]h]cbg'Zcf'gdYWU'Wcbg]XYfUhc'b'k ]'VY'fYei ]fYX'Zcf'UggYgga YbhUbX'dUf]h]W]dUhc]b'UVgYbW'g'—  
Vi hbc'XcW a YbhUfmYj ]XYbW'Zcf'7CJ -8'%' ]'bYgg'cf']gc'Uh]cb'k ]'VY'fYei ]fYX"

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

I BGK `Ug`Ub`cb[c]b[ `Wca a ]ha Ybhlc`ZcghYf]b[ `U`W`hi`fY`cZ`YUfb]b[ `]bZcfa YX`VmiUWUXYa ]W]bhY[ f]m`5`  
I BGK `gh`XYbthg`Uj`Y`U`fYgdcbg]V`]mhc`UX`YfY`hc`h`g`df]bW]d`Y`cZUWUXYa ]W]bhY[ f]m`D`U[ ]Uf]ga  
i bXYfa ]bYg`UWUXYa ]W]bhY[ f]m]UbX`]g`bchlc`YfUHYX`Uhl`BGK`"B`SY[Sde\_`SfG@E|`[e VWX`W`Se ge[`Y`  
fZWl`ad/e ad[VWSe aXafZWde S`V bSee[`Y`fZW\_`aXSe kagdai`ž

D`U[ ]Uf]ga`]g`U`mdY`cZ]bhY`YWfi`U`h`YZh`#iW]b`hU`\_Y`a`UbmiZcfa`gžZca`XY`]VYfUHY`WXYU]b[ `hc`UWUXYbH]m`  
Wcdm]b[ `Zca`U`gci`fWY`k`]h`ci`hUW\_bck`YX[`Ya`Ybh`I`BGK` `Ug`dfcXi`WYX`U`k`YVg]hY`k`]h`U`k`YU`h`cZ`  
fYgci`fWYg`hc`gi`ddcfhghi`XYbthg`hc`i`bXYfgtUbX`UbX`Uj`c]X`d`U[ ]Uf]ga`ž`]g]h`[gh`XYbthi`bgk`"YXi`"Ui`#d`U\[ \]Uf\]ga`"](#)  
H\Y`@YUfb]b[ `7`YbhfY`Ugg]gth`ghi`XYbthg`k`]h`i`bXYfgtUbX]b[ `UWUXYa ]W]bhY[ f]m]UbX`ck`bchlc`d`U[ ]Uf]gY`  
H\YmiU`gc`lc`X`k`cf\_g\cdg`UbX`W]b`Y`d`gh`XYbthg`cbY!cb!cbY"

Mci`UfY`U`gc`fYa`]bXYX`h`UhWfYZ`hja`Y`a`UbU[`Ya`Ybh]g`Ub]a`dcffUbhdufhicZghi`XmiUbX`cbY`cZ`hY`

5 WUXYa ]W=Zcfa Uh]cb

7 fYX]hdc]bHg

7 ci fgY`WYX]h]g`WU`W`UH`X`]b`I` b]hg!C Z 7 fYX]hfl C 7 E`H\Y`bcfa U`k cf`cUX`YI dYWW]h]cb`Zc`f`cbY`I C 7 ]g`Uddfcl ]a UH`m&) ` \ci fg`dYf`hYfa "H\]g`]bW`i XYg`WUgg`WcbHUW`h\ci fg`z`df]j UH`g`h Xn`z`ch`Yf`YUfb]b[ UW]j ]hYg`z`dfYdUfU]h]cb`UbX`h]a Y`gdYbhc`b`U`UggYggUV`Y`k cf`\_"

A cghWci fgYk cf`\_Wci fgYg`Uhi BGK`UFY`\*`I C 7`UbX`]bj`c`j`Y`Ub`Ygh]a UH`X`%) \$` \ci fg`hc`Wca d`YH`z`Zc`f`Vch fY[ i`Uf`UbX`]bH`bg]j`Y`hYfa g`"9UWX`Wci fgY`]bW`i XYg`U`dfYgW]VYX`bi a VYf`cZ` \ci fg`dYf`k`YY`\_`f`k`#`E`cZ gW`YXi`YX`ZUW`!hc`!ZUW`UbX`#`f`cb`]bY`WcbHUW`i`5bmUXX]h]cbU`h]a Y`VYmc`bX`h`Y`dfYgW]VYX`WcbHUW`h\ci fg g\ci`X`VY`gdYbh]b`a U\_]b[ `gi`fY`h`Uhmci`i`bXYfg`h`UbX`h`Y`YV`h`fY`a UH`f]U`z`Wca d`Yh]b[ `h`Y`g`Yh Ugg][`ba`YbHg`z`Z`f`h`Yf`fYUX]b[`z`UbX`fYj`]g]b[ `Zc`f`UbmYI`Ua`]bU]h]cbg"

C b!WJa di g`WUgg`UH`Y`bX`Ub`WY

Di V`]WX]ghU`bW]b[ `WcbX]h]cbg`a i ghVY`Zc`ck`YX`Zc`f`U`ZUW`!hc`!ZUW`WUggYg`"Hc`Ybgi`fY`h`]g`z`cb`m`g`h`XYbHg

⇒ dcfhUbh@]b\_g

- [A ccX`Y](#)
- [@UV`5WV`gg](#)
- [<YU`h`UbX`GUZYhm](#)
- [7ca`di`hb\[`: UW`hYg](#)
- [Gh`XYbhF`Ygci`fW`g](#)
- [7ci`fgY`Ci`h\]bYg](#)
- [9b\[ \]bYYf\]b\[ `Gh`XYbhGi`ddcfhGYfj`\\_W`g:7YbhfY](#)
- [A`U`YfgdUW`](#)
- [I`BGK`H\]a`YhUV`Y](#)
- [I`BGK`<`UbXVcc`](#)
- [I`BGK`A`YWX`Ub\]WV`UbX`A`Ubi`ZUV`f\]b\[ `9b\[ \]bYYf\]b\[](#)
- [9ei`\]hUV`Y`@YUfb\]b\[ `GYfj`\\_W`g](#)

⇒ U[ Y`7`fYX]h

GmbYf[ ]Yg`]b`Gci`bX`&\$%\*`

7F ⇒ CG

7F ⇒ CG`Dfcj`JXYf`7`cXY.`\$\$\$-`,`;

5W\_bck`YX[ Ya`YbhcZ`7`ci`b]fm

K`Y`UW\_bck`YX[ Y`h`Y`6YXY[ U`d`Ycd`Y`k` \c`UFY`h`Y`fUX]h]cbU`W`g]hX]Ubg`c`Z`h`Y`UbXg`cb`k` \]W`I`BGK`  
?`Ybg]b[ hcb`W]a`di`g`]g`c`W]h`Y`X`"

5ddYbX|l . '9b[ ]bYYfg'5i ghfU`U'f95E'DfcZYgg]cbU`'9b[ ]bYYf'7ca dYhYbWm  
GHUbXUfX

Dfc[ fUa ' bHYbXYX'@YUfb]b[ 'Ci hWta Yg	
? bck `YX[ Y'UbX'g_]`VUgY	
D9%"%7 ca dfY\Ybg]j YzhYcfmVUgYX'i bXYfghUbX]b[ 'cZHY'i bXYfd]bb]b[ 'bUh fU`UbX d\mg]WU`gWYbWg'UbX'hY'Yb[ ]bYYf]b[ 'Z bXUa YbHU'g'Udd`]WUV'Y'hc'hY'Yb[ ]bYYf]b[ 'X]gWd`]bY	
D9%"&'7 cbWdh U`i bXYfghUbX]b[ 'cZHY'a UhYa Uh]Wg'z'bi a Yf]WU`UbU'mg]g'ghUhg]Wg'z'UbX Wta di h'f'UbX' ]bZ'fa Uh]cb'gWYbWg'k \]W' i bXYfd]b'hY'Yb[ ]bYYf]b[ 'X]gWd`]bY	
D9%" " ' b!XYdh'i bXYfghUbX]b[ 'cZgdYWU`]ghVcX]Yg'cZ_bck `YX[ Y'k ]h]b'hY'Yb[ ]bYYf]b[ X]gWd`]bY	
D9%"('8]gWfba YbhcZ_bck `YX[ Y'XYj Y`cda YbhUbX'fYgYUfW'X]fYW]cbg'k ]h]b'hY Yb[ ]bYYf]b[ 'X]gWd`]bY	
D9%" ) ? bck `YX[ Y'cZYb[ ]bYYf]b[ 'XYg][ b'dfUW]W'UbX'WcbHYI h U`ZUW'c'fg]a dUW]b[ 'hY Yb[ ]bYYf]b[ 'X]gWd`]bY	
D9%"* 'i bXYfghUbX]b[ 'cZHY'gW'cdY'z'df]bW]d'Yg'z'bcfa g'z'UW'W'ci bHUJ']h]Yg'UbX'Vci bXg'cZ gi gh]bUV'Y'Yb[ ]bYYf]b[ 'dfUW]W' ]b'hY'gdYW]ZWX]gWd`]bY	
9b[ ]bYYf]b[ 'Udd`]WU]h]cb'UV`]m	
D9%"%5dd`]WU]h]cb'cZYghUV`]g\YX'Yb[ ]bYYf]b[ 'a Yh'cXg'hc'Wta d'YI'Yb[ ]bYYf]b[ 'dfcV'Ya gc`]b[	
D9%"&'&'i YbhUdd`]WU]h]cb'cZYb[ ]bYYf]b[ 'fYW]b]ei Yg'z'hc'g'UbX'fYgci fW'g	
D9%" " '5dd`]WU]h]cb'cZgmg]Ya Uh]WYb[ ]bYYf]b[ 'gmb'hYg]g'UbX'XYg][ b'dfcW'ggYg	
D9%"('5dd`]WU]h]cb'cZgmg]Ya Uh]WUdd'fcUW]Yg'hc'hY'WcbXi W]UbX'a UbU[ Ya YbhcZYb[ ]bYYf]b[ dfc'YW]g	
DfcZYgg]cbU`UbX'dYfgcbU`Uhf]Vi hYg	
D9' "%9h]WU`WcbXi W]UbX'dfcZYgg]cbU`UW'W'ci bHUJ']m	
D9' "&'9ZYW]j Y'cfU`UbX'k f]hYb'Wta a i b]WU]h]cb`]b'dfcZYgg]cbU`UbX`UmXca U]bg	
D9' "' '7fYUh]j Y'z]bbcj Uh]j Y'UbX'dfc!UW]j Y'XYa YUbcif	
D9' "( 'DfcZYgg]cbU`i gY'UbX'a UbU[ Ya YbhcZ]bZ'fa Uh]cb	
D9' ") 'C'fXYf'ma UbU[ Ya YbhcZgY'z'UbX'dfcZYgg]cbU`WcbXi W]	
D9' "*" '9ZYW]j Y'hYUa 'a Ya VYfg\]d'UbX'hYUa ``YUXYfg\]d	