7ci fgY Cj Yfj]Yk

GHJZ:7cbHJWh8YHJ]`g

7cbj Ybcfg

BUa Y	9a U]`	5j U]`UV]`]hm	@cWUh]cb	D\cbY
A]hWXY``' <ufym< td=""><td>a "\UfYm4 i bgk "YXi "Ui</td><td></td><td>I BGK K UHYF FYgYUFWX @UVcFUHcfm fA Ub`mJU`YŁ</td><td>f\$&Ł*, \$+% -,,,'</td></ufym<>	a "\UfYm4 i bgk "YXi "Ui		I BGK K UHYF FYgYUFWX @UVcFUHcfm fA Ub`mJU`YŁ	f\$&Ł*, \$+% -,,,'

@YWhi fYfg

BUa Y	9a U]`	5j U]`UV]`]lm	@cWUh]cb	D\cbY
>Ua Yg '< UmYg	<u>^YY"\UmYg4 i bgk "YXi "Ui</u>		< && F a ' \$)	

GWXcc`7cbhUWh =bZcfa Uh]cb

<u>9b[]bYYf]b['Gh'XYbhGiddcfhGYfj]WYg'-</u>'H\Y'BiWYig'!'Ybfc`a Ybhž'dfc[fYgg]cb'W\YW_gž'WUg\'fYei Yghgž WtifgY']ggi Yg'cf'dfc[fUa!fY`UhYX'ei Yf]Yg'

9b[]bYYf]b[*\DXi glf]U``HfU]b]b[-- \DXi glf]U``lfU]b]b['ei Ygl]cbg'

<u>I BGK "Gh Xm5VfcUX"</u>—gh XmUVfcUX gh XYbhYbei]f]Yg fZcf]bVci bX gh XYbhgŁ

<u>I BGK '91 WXUb[Y</u>'-gh XYbhYl WXUb[Y'Ybei]f]Yg'flcf']bVci bX'gh XYbhgl'

LBGK: i h fY'Gh XYbhg'-'dchYbhJU``gh XYbhYbei]f]Yg'Y"["'UXa]gg]cbgž'ZYYgž'dfc[fUa gž'WfYX]hhfUbgZYf'

D/cbY.

fŽ*%&Ł-',),)\$\$ - Bi WYi g Gh XYbh<i V

fŽ*%'&k'-',) '+**%'-'9b[]bYYf]b['=bXi glf]U``HfU]b]b['

fŽ*%%&£'-',) " %+- '-1 BGK 'Gh Xm5VfcUX'UbX'1 BGK '91 WXUb[Y'fZcf']bVci bX'gh XYbhg£'

7 ci fgY 8 YHJ]`g I b]hg cZ7 fYX]h** Gi a a UfmcZh\Y 7 ci fgY

5ggYgga Ybh

5ggYgga Ybh'tUg_	K Y][\h	8iY'8UHY	7 ci fgY @YUfb]b[Ci hWca Yg 5ggYggYX
%".7 UgYghi Xmi¥YbhjZjWUhjcb	&\$I	% #\$* #&\$&&`%%) - `DA	%ž &ž)
&"`DfYgYbrUr]cb	%) ।	%) #\$+#&\$&&`\$\$\$`5A	%ž &ž (ž)
' "'DYYf'F Yj]Yk #7 f]h]ei Y	%) ।	&(#\$+#&\$&&`%%) - `DA	' ž')
("'9b[]bYYf]b['FYdcfh) \$1	\$+#\$, #&\$&&`%%) - `DA	%ž'&ž' ž'(ž')

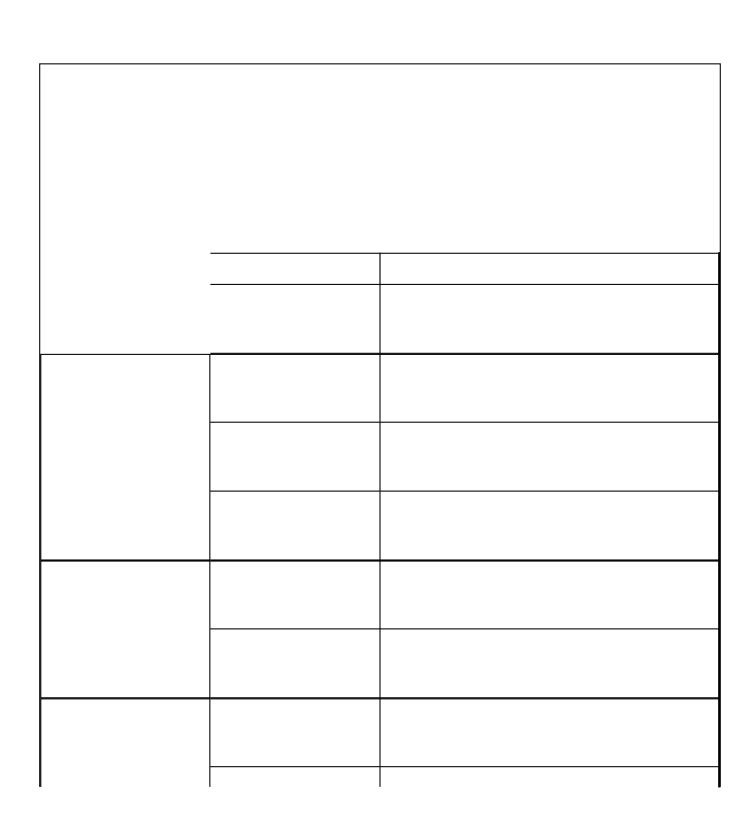
5ggYgga Ybh% 7UgYgh Xm=XYbh]Z]WUh]cb

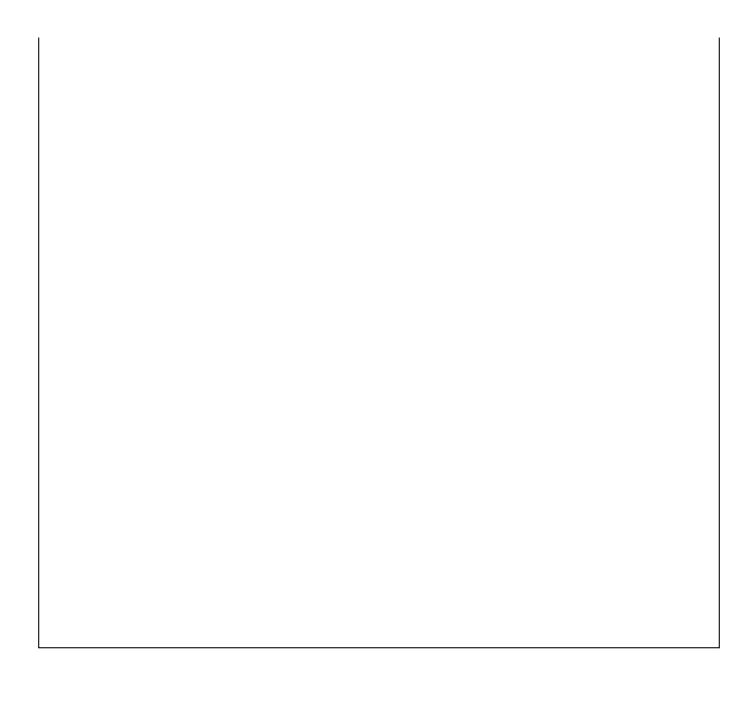
5ggYgga Ybh`Yb[h\.`&`dU[Yg`cZk f]hhYb'hYl hž'%'dU[Y`cZZ][i fYg#UV`Yg Gi Va]gg]cb'bchYg.`H\fci [\'Hi fb]h]b '%-#\$*#&\$&&XY%YJhY.D%-#\$*#&\$&&'%%)-'DA

 $\label{lem:continuity} Ghi XYbhg`UfY`fYei]fYX`hc`XYZ]bY`UbX`Wca d]`Y`]bZcfa Uh]cb`fY`Uh]b[`hc`h\Y`WUgYghi Xm'UfYU`h\Ym'k]``]bj Ygh][UhYX`h\]g`gYa YghYf''$

O'' ca a Ybh K \] gha Uf_]b[]g dfc[fYgg]j Y UW % % %

Gica a Ybh YY Y





Gi Va]gg]cb cZ5ggYgga YbhHUg_g

D`YUgY`fYZYf`hc`h\Y`A ccX`Y`dU[Y`cZh\Y`Wci fgY`Zcf`Z fh\Yf`[i]XUbW\`cb`UggYgga Ybhigi Va]gg]cb"

I BGK `\Ug`U`ghUbXUfX``UhY`gi Va]gg]cb`dYbU`hmcZ

•)ı 'dYf'XUmž'Zcf'U``'UggYgga Ybhg'k \YfY'U'dYbU'hm'Udd`]Ygž'WUddYX'Uh'Zjj Y'XUmg'f1%&\$`\ci fg\z'UZhYf k\]WX'U'ghi XYbh\WUbbchgi Va]h'Ub'UggYgga Ybhž'UbX'bc'dYfa]hhYX'j Uf]Uh]cb"

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

6Yk UfY "5b" Ugg][ba Ybhh\Uh]bWi XYg"d`U[]Uf]gYX"a UhYf]U``k]```fYWY]j Y"U"\$ı ': U]`žUbX`ghi XYbhg`k \cd"\U[]Uf]gY\"a UmZU]``h\Y'Wci fgY"'Ghi XYbhg`k \cd"\U[]Uf]gY\"UfY\"U`gc"`]UV`Y'hc"X]gW]d`]bUfm'UWf]cbž]bWi X]b[YI Wi g]cb'Zfca 'Ybfc`a Ybh'

 $D`U[]Uf]ga ~]g'hY'i gY'cZUbch\Yf'dYfgcb'g'k cf_'cf']XYUg'Ug']Zh\Ymk YfY'mci f'ck b'''K ~Yb']h]g'bYWfggUfmcf XYg]fUV'Y'hc'i gY'ch\Yf'dYcd'Y'g'a UhYf]U`'mci 'g\ci `X'UXYei UhY`mUW_bck `YX[Y'k \cgY'k cfXg'cf']XYUg'h\Ym$

5ddYbX]I . '9b[]bYYfg'5i ghfU`]U'f95Ł'DfcZYgg]cbU` '9b[]bYYf'7ca dYhYbWm GHJbXUfX

Dfc[fUa '±bHYbXYX'@YUfb]b['Ci HWca Yg	
?bck `YX[Y`UbX'g_]```VUgY	
D9%%7ca dfY\Ybg]j Yžfh\YcfmVUgYX'i bXYfgfUbX]b['cZfh\Y'i bXYfd]bb]b['bUhi fU`'UbX d\mg]WU`'gWJYbWYg'UbX'h\Y'Yb[]bYYf]b['Z bXUa YbfU`g'Udd`]WUV`Y'hc'h\Y'Yb[]bYYf]b['X]gWJd`]bY	
D9%"&"7cbWYdh U``i bXYfgHJbX]b['cZh\Y'a Uh\Ya Uh]Wgžbi a Yf]WJ``UbU`mg]gžgHJh]gh]Wgž'UbX Wca di hYf`UbX`]bZcfa Uh]cb`gW]YbWYg`k\]W\`i bXYfd]b'h\Y'Yb[]bYYf]b['X]gW]d`]bY	
D9%" =: XYdh\ i bXYfghUbX]b[icZgdYW]U`]ghVcX]YgicZ_bck iYX[Yik]h\]bih\ YiYb[]bYYf]b[X]gW]d`]bY	
D9%"('8]gWfba YbhcZ_bck `YX[Y`XYj Y`cda YbhUbX`fYgYUfVX 'X]fYWf]cbg`k]h\]b`h\Y Yb[]bYYf]b['X]gW]d`]bY	
D9%") '? bck `YX[Y`cZYb[]bYYf]b['XYg][b`dfUWf]WY`UbX`WcbHYl hi U``ZUWhcfg`]a dUWf]b['h\Y Yb[]bYYf]b['X]gW]d`]bY	
D9%"* I bXYfgHJbX]b['cZh\Y'gWcdYž'df]bW]d`Ygž'bcfa gž'UWWci bHJV]`]h]Yg'UbX'Vci bXg'cZ gi gHJ]bUV`Y'Yb[]bYYf]b['dfUWf]WY']b'h\Y'gdYW]Z]WX]gW]d`]bY	
9b[]bYYf]b['Udd`]WUh]cb'UV]`]hm	
D9&"%5dd`]WUhjcb`cZYgHUV`]g\YX`Yb[]bYYf]b[`a Yh\cXg`hc`Wca d`Yl 'Yb[]bYYf]b[`dfcV`Ya gc`j]b[
D9&"&": `i YbhiUdd`]WUh]cb'cZYb[]bYYf]b['hYW\b]ei Ygž'hcc`g'UbX'fYgci fWYg	
D9&" '5dd`]WUh]cb`cZgmghYa Uh]WYb[]bYYf]b['gmbh\Yg]g'UbX'XYg][b'dfcWYggYg	
D9&"('5dd`]WUh]cb'cZgmghYa Uh]WUddfcUVXYg'hc'h\Y'WcbXi WhUbX'a UbU[Ya YbhcZYb[]bYYf]b[dfcYWng	
DfcZYgg]cbU`'UbX'dYfgcbU`'UHff]Vi HYg	
D9' "%'9h\]WU`'WcbXi WiUbX'dfcZYgg]cbU`'UWWci bhUV]`]hm	
D9' "&'9ZYWNjjY'cfU``UbX'k f]hhYb'Wcaaib]WUhjcb']b'dfcZYgg]cbU``UbX'`UmXcaU]bg	
D9' "' '7 fYUhjj Yž']bbcj Uhjj Y'UbX'dfc!UWhjj Y'XYa YUbci f	
D9' "('DfcZ/gg]cbU`i gY'UbX'a UbU[Ya YbhcZ]bZcfa Uh]cb	
D9' ") 'C fXYf`ma UbU[Ya YbhcZgY`Zë'UbX`dfcZYgg]cbU``WcbXi Wh	
D9' "* '9ZZYW¶j Y'HYUa 'a Ya VYfg\]d'UbX'HYUa '`YUXYfg\]d	