

## 7 ci fgY Cj Yfj ]Yk

### GHJZ:7cbHJWh8YHJ]`g

### 7cbj Ybcfg

BUa Y	9a U]`	5j U]`UV]`]hm	@cWUh]cb	D\cbY
7 \Uf]h\U`XY`G]`j U	WXYg]j U4 i bgk "YXi "Ui	7 cbhUWhj ]U A ]WfcgcZhHYUa g 7 \Uh	>%+ 5]bgk cfh\ 6i]`X]b[ F cca" %%#<	HYUa g

## GWXcc`7cbHJWhi±bZcfa Uhjcb

### @cWUhlcb

I BGK "A YWX.Ub]WU``UbX"A Ubi ZUWfi f]b[ '9b[ ]bYYf]b[

5]bgk cfh\ 'Vi ]`X]b[ '>%+ž'@Y| Y`'%

5Vcj Y 7 c ZZYY cb 7 Ua di g

### < ci fg

-.\$\$-).\$\$da ž'A cbXUm-: f]XUm!

ł7 `cgYX cb 'di V`]W\c`]XUmgž'GW\cc``gW\YXi `YX'Yj Ybhg'UbX'l b]j Yfg]hmG\i hXck b

### K YV

GWXcc``cZA YWXUb]WU``UbX`A Ubi ZUWh f]b[ '9b[ ]bYYf]b[

9b[]bYYf]b[]Gh XYbhGi ddcfhGYfi ]Wa

9b[]bYYf]b[ '±bXi ghf]U`'HfU]b]b[

LBGK Ghi Xm5VfcUX UbX 91 WW Ub[Y flzcf]bVci bX ghi XYbhgŁ

I BGK : i h fY Gh XYbhq

### D\cbY

fŽ\*%&Ł-',),)\$\$-BiWYiqGhXYbh<iV

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

fŽ\*%%&E-',) '' %+- '-' BGK 'Gh Xm5VfcUX'UbX'I BGK '91 WXUb[Y'fZcf']bVci bX'gh XYbhgŁ

fŽ\*%"&L'-',) (\$-+'-GW\cc`CZZW}}

7ci fgY 8YW]`g	
l b]hg·cZ·7fYX]h·*·	
Gi a a UfmcZ'h\Y'7ci fgY	
H\]g`Wci fgY`Zi ff\Yf`XYj Y`cdg`Zci bXUf]cbU``H\Yfa cZi ]Xg`WcbWfdfg`Z]fg	gh]blfcXi WYX`]b`H\Yfa cXmbUa ]Wg
	<u> </u>

### 5ggYgga Ybh

5ggYgga Ybh'hUg_	K Y][ \h	8iY'8UHY	7 ci fgY @YUfb]b[ Ci HWca Yg 5ggYggYX
%": cfa Uhjj Y'E i ]n	B <i>#</i> 5	&( #\$* #&\$&&`%%) - `DA	%
&"'@UVcfUhcfmiF Ydcfh	&\$I	%) #\$+#&\$&&`%%) - `DA	%
ˈ"ʿA ]XˈHYfa ˈE i ]n	' \$1	\$%#\$+#&\$&&`\$, .\$\$`DA	%
(" <sup>5</sup> gg][ ba Ybh	%) ।	&-#\$+#&\$&&`%%) - `DA	&
) "": ]bU`"YI Ua	')	91 Ua 'DYf]cXž'XUhY'H67	&ž¨'

### 5ggYgga Ybh'% : cfa Uhjj Y E i ]n

GHJfhXUhY. &\$#\$\*#&\$&& \\ 5ggYgga Ybh`Yb[ h\. &\ci fg Gi Va ]gg]cb bchYg. J ]U'A ccXY 8i Y`XUhY. &(#\$\*#&\$&& \\)) - DA 8YUX`]bY`Zcf'UVgc`i hY`ZJ]. B#5

A Uf\_g fYh fbYX. " ±bX]j ]Xi U`gi Va ]gg]cb UbX a Uf\_g fYh fbYX UZhYf gi Va ]gg]cb

H\YfY`k]```VY`U`AccX`Y`ei]n`\Y`X`]b`K YY\_`(`fc`[]j Y`ghi XYbhg`h\Y`cddcfhi b]mhc`j Yf]Zmh\Uhih\Ym\Uj Y i bXYfghccX`h\Y`a UhYf]U``gc`ZJf"`H\]g`ei]n`\Ug`U`nYfc`dYfW\bhf\\i\ E`k Y][\h]b[`UbX`XcYg`bchWcbhf]Vi hY`hc mci f`cj YfU```Wci fgY`a Uf\_/\ck Yj Yfz'ghi XYbhg`UfY`YbWci fU[YX`hc`dUfh]W]dUhY"`#i]g`]bhYbXYX`h\Uhih\Y`ghmY UbX`X]ZZ]W\`hmcZh\Y`AccX`Y`ei]n`k]```VY`fYdfYgYbhUh]j Y`cZh\Uhi]b`h\Y`A]X`HYfa`YI Ua`-`U`h\ci [\`aUf\_]b[UbX`ZYYXVUW\_`Wca a Ybhg`k]```VY`Ui hca Uh]WU``mUdd`]YX`VmWca di hYf`a Uf\_]b["

### 5ggYgga Ybh& @UVcfUhcfmF Ydcfh

GHJfh'XUhY. '% #\$\*#&\$&&
5ggYgga Ybh`Yb[ h\. '%\$'dU[ Yg
Gi Va ]gg]cb'bchYg. 'J ]U'A ccX`Y
8i Y`XUhY. '%) #\$+#&\$&&'%%) - 'DA
8YUX`]bY'Zcf'UVgc`i hY`ZU]`. '') 'XUmg'UZhYf'h\Y`Xi Y`XUhY''

A Uf\_gʻfYh fbYX. "±x]j ]Xi U`gi Va ]gg]cbʻUbXʻa Uf\_gʻfYh fbYXʻhk cʻk YY\_gʻUZhYfʻgi Va ]gg]cb

H\]g`Ugg][ ba Ybh]g`gi Va ]hhYX`h\fci [\'Hi fb]h]b`UbX`ghi XYbhg`Xc`bchgYY`Hi fb]h]b`g]a ]`Uf]hmfYdcfhg"

### 5ggYgga Ybh' . A ]X HYfa Ei ]n

GHJfhXUhY. \$\#\$+\#\\$\&\\$\\*.\\$\DA 5ggYgga Ybh`Yb[h\. \&\circ\fg Gi Va ]gg]cb\bchYg. J ]U\A\ccX`Y 8i Y`XUhY.`\$%#\$+#&\$&&`\$, .\$\$`DA 8YUX`]bY`Zcf`UVgc`i hY`ZU]`.``B#5 A Uf\_g`fYh fbYX.``±bX]j ]Xi U``gi Va ]gg]cb`UbX`a Uf\_g`fYh fbYX`hk c`k YY\_g`UZhYf`gi Va ]gg]cb

H\]g'ei ]n'k]``Wcj Yf'h\Y'< YUh'HfUbgZYf'WcbhYbhXY`]j YfYXž'k\]W\`]bWi XYg'h\Y'a U]b'a cXYg'cZ\YUh'HfUbgZYfž WcbXi Wf]cbž'Wcbj YWf]cbž'UbX'fUX]Uh]cb"'UbX'h\Y'Udd`]WUh]cb'cZ\YUh'HfUbgZYf'UbU`mg]g'hc'\YUh'YI W\Ub[Yfg UbX'Wcc']b['Z]bg"

Ghi XYbhgʻk]``VYʻfYei]fYX`hcʻgi Va]hiVch\.`h\Y]f`\UbXkf]hhYbʻk cf\_]b[`fD8: i d`cUXŁ'UbX`h\Y]f`ZbU``Ubgk YfgfX]fYWhm]bʻh\Y`A ccX`Yʻei]nŁ

H\]g^]g^bchU^Hi fb]h]b^Ugg][ ba Ybh

### 5ggYgga Ybh(. 5gg][ba Ybh

GHJfhXUhY. '\$(#\$+#&\$&&
5ggYgga Ybh`Yb[h\.'%\$'dU[Yg
Gi Va ]gg]cb'bchYg. 'J ]U'A ccX`Y
8i Y'XUhY. '&- #\$+#&\$&&'%') - 'DA
8YUX`]bY'Zcf'UVgc`i hY'ZJ]`. '') 'XUmg'UZhYf'h\Y'Xi Y'XUhY''
A Uf\_g'fYh fbYX. ''±\X]j ]Xi U``gi Va ]gg]cb'UbX`a Uf\_g'fYh fbYX'hk c'k YY\_g'UZhYf'gi Va ]gg]cb

### 8YHJ]`g.

H\]g'Ugg][ ba Ybhk ]``hYghmci f'i bXYfghUbX]b[ 'cZh\Y'Wa dfYgg]V`Y'Zck 'a UhYf]U``Wa YfYX`]b'h\]g
Wa fgY']b'k YY\_g')!, "

H\]q Uqq][ ba Ybh]q qi Va ]h\X h\fci [ \ Hi fb]hb UbX qh XYbhq Xc bchqYY Hi fb]hb q]a ]`Uf]hmfYdcfhq"

### 5qqYqqa Ybh) : ]bU`Yl Ua

Gi Va ]gg]cb bchYg. J ]U A ccXY 8i Y XUhY. 9l Ua DYf]cXžXUhY H67 8YUX ]bY Zcf UVqc i hY ZU] . B #5

#### 8YW]`q.

HYghWcj Yf]b[ 'Zi ]Xgža ]I hi fYgʻUbX Wca Vi gh]cb Wca dcbYbhgʻcZh\Y Wci fgY ``]b k YY\_gʻ) hc %\$

Ghi XYbhgʻk]``VYʻfYei]fYX`hcʻgi Va]hiVch\.`h\Y]f`\UbXk f]hhYbʻk cf\_]b[`fD8: 'i d`cUXŁ'UbX'h\Y]f`Z]bU``Ubgk Yfg fX]fYWhm]bʻh\Y`A ccX`Y`ei]nŁ

H\]g^]g^bchU^Hi fb]h]b^Ugg][ ba Ybh

## 5 hmy b X Ub WY F Yei ] f Ya Yb hg

## 7ci fgY'GWXYXi `Y

J]Yk 'WUgg'ha YHUV'Y

## H]a YtUV`Y

8 UHY	HmdY	7cbhYbh
C!K YY'&' 'A Um!'&+ A Um		
K_YY_'%'' \$'A Um!''	@YWhi fY	±bhfcXiWhjcb′#7cbXiWhjcb
>i bY		Hcd]Wg. ~ YUhHfUbgZYf"CjYfj]Yk/Ib]hg"UbX8]aYbg]cbg/7cbXiWnjcb
	K cf_g\cd	Hcd]Vvg. K YY_'%'@YVVi fY'a UhYf]U`
K_YY_'&.'*'>i bY'!'%\$	@YWi fY	7cbXi Whjcb UbX HfUbg]YbW
>i bY		Hcd]Wg. '%8 'GhYUXm'GhUhY '7 cbXi Wf]cb/91 hYbXYX : ]bg/@ a dYX '7 UdUW]hUbWY 'A Yh\cX"
	K cf_g\cd	Hcd]Vvg. K YY_'&'@YVvi fY'a UhYf]U`
K YY_" . % '>i bY'! %+	@YWi fY	7 cbj YWNjcb
>i bY		Hcd]Wg. :: cfWYX #: fYY fB Uhi fU'z 7 cbj YWf]cb
	K cf_g\cd	Hcd]Vvg. K YY_" @YVvi fY a UhYf]U`
	@UVcfUhcfm	Hcd]W'7cbj YWgcbifl i fh\Yf'XYhJ]`gik]``'VY dfcj]XYXicbiAccX`YŁ
K_YY_'(.'&\$'>i bY'!'&(	@YWi fY	< YUh'91 WkUb[Yfg:#FUX]Uh]cb
>i bY		Hcd]W' <yuh9 w\ub[yf'hmdyg 6`uw_vcxmfux]uh]cb<="" @ah8'ayh\cx="" td=""></yuh9 w\ub[yf'hmdyg>
	K cf_g\cd	Hcd]Wg. K YY_'('@YWhifY'a UhYf]U`
	@UVcfUlrcfm	Hcd]W' <yuh9i w.ub[yfg'flifh\yf'xyhu]`g'k]``'vy<br="">dfcj]XYX'cb'AccX`YŁ</yuh9i>
	5ggYgga Ybh	: cfa Uhjj Y'E i ]n. 'J ]U'A ccX`Y
K_YY') . '&+ '>i bY '! '%	@YWi fY	FUX]Uh]cb'#: `i ]Xg
>i `m		Hcd]W'F UX]Uhjj Y' <yuhhfubgzyf'#7 ca="" dfygg]v'y<br="">: `ck</yuhhfubgzyf'#7>

	K cf_g\cd	Hcd]Wg. KYY_') @YWh fY a UhYf]U`
	5ggYgga Ybh	A ]X"HYfa 'E i ]n. 'J ]U"A ccX"Y
K YY_"+." <b>‱</b> ">i `m'\$%) >i `m	@YWhi fY	: `i ]Xg
21 111		Hcd]W

## FYgci fWyg

## FYWca a YbXYX FYgci fWYg

£; .: WSfS`V? See FdS`eXWd 8g`VS\_W fS'eS`V3bb'[USf[a`ež') h\#`h\'9X]h]cb']b'G=l b]hg'VmiM big £Yb[Y`UbX'5 $\mathbb{Z}_{q}$ \]b'; \U'Uf

5. 8g`VS\_WfS'e aX3WdaVk`S\_[Uež\*h\ 9X]h]cb Vm>c\b 5bXYfgcb

£6. FZWd\_aVk\S\_[Uel3\7\Y[\W\d[Y3bbdaSUZž, h\9X]h]cb']b'G=Ib]hg'VmiMbig'£Yb[Y\UbX'A]\W\UY\6c\Yg

I BGK @]VfUfmk YVg]N. \hdg.#k k k "\]VfUfm'i bgk "YXi "Ui #

A ccX`Y. '\hdg.##a ccX`Y"hY`h'i bgk "YXi "Ui #c[]b#bXYI "d\d#

.

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

: YYXVUW\_cb`h\Y`Wci fgY`]g`[ Uh\YfYX`dYf]cX]WU``mi g]b[`j Uf]ci g`a YUbgž]bWi X]b[`h\Y`I BGK a m9I dYf]YbW'`dfcW'ggž]bZcfa U``X]gW gg]cb`]b`h\Y`Z]bU``WUgg`Zcf`h\Y`Wci fgYžUbX`h\Y`GW\cc`'g Gh XYbh#GhUZZa YYh]b[ g"'Mci f`ZYYXVUW\_`]g`hU\_Yb`gYf]ci g`mžUbX`Wcbh]bi U``]a dfcj Ya Ybhg`UfY`a UXY`hc`h\Y Wci fgY`VUgYXž]b`dUfhžcb`gi W\`ZYYXVUW\_"

#D'th\]g'Wci fgYžfYWYbh]a dfcj Ya Ybhg'fYgi `h]b['Zfca 'ghi XYbhZYYXVUW\_']bWi XY'fYghfi Whi f]b['th\Y'Wci fgY'hc [fci d'th\Y'\YUh'hfUbgZYf'a UhYf]U`'UbX'fY`UhYX'WcbhYbhk\]W.'a UmVY'i gYZi ``hc'U'[fUXi UhY'Yb[]bYYf']b ]bXi qhfm'''5`qcžcb`]bY'WUqqYq'UbX'Wca a i b]WUhcb']q'j ]U'A]WfcqcZhHYUa q"

@UVcfUhcfmK cf\_g\cd \DZcfa Uhcb

8YHJ]q'k]``'VY'dfci]XYX'cb'AccX`Y

# Gi Va ]gg]cb cZ5ggYgga YbhHUg\_g 5ggYgga Ybhgi Va ]gg]cb UbX a Uf\_]b[ Wf]hYf]U

 $\hbox{G\ci `X'h\Y'Wci fgY'\Uj Y'Ubmbcb!Y`YWfcb]} \hbox{WUggYgga Ybhigi Va ]} \hbox{gg]cb$\check{z}'h\YgY'g\ci `X'\Uj Y'U'ghUbXUfX }$ 

h\YgY`UfY`\Y`X`Xi f]b[`h\Y`I b]j Yfg]hmYI Ua ]bUh]cb`dYf]cXg.: YVfi UfmZcf`Gi a a Yf`HYfa ž'A UmZcf`H%ž 5i [i ghZcf`H&ž'UbX`Bcj Ya VYf#8YWYa VYf`Zcf`H' "

D`YUgY'j ]g]ha ml BGK 'Zcf'Dfcj ]g]cbU``91 Ua ]bUh]cb'h]a YhUV`Y'di V`]g\'XUhYg": cf'Z fh\Yf']bZcfa Uh]cb'cb Yl Ua gž'd`YUgY'gYY'h\Y'<u>91 Ua g</u>'k YVdU[Y"

### GdYWJU`7cbg]XYfUhJcb

⊋mci `\Uj Y`YI dYf]YbWYX`Ub`]``bYgg`cf`a ]gUXj Ybhi fY`VYmcbX`mci f`Wcblfc``h\Uhik ]```]bhYfZYfY`k ]h\`mci f UggYgga YbhidYfZcfa UbWYž'mci `UfY`Y`][ ]V`Y`hc`Udd`m'Zcf`GdYW]U``7 cbg]XYfUh]cb`df]cf`hc`gi Va ]hh]b[ `Ub UggYgga Ybhicf`g]hh]b[ `Ub`YI Ua "

I BGK 'bck '\Ug'U': <u>]hhc'G]h#Gi Va ]hfi 'Y</u>ž'k \]W\'a YUbg'h\Uh]Zmci 'UhhYa dh'Ub'YI Ua 'cf'gi Va ]h'U'd]YW'cZ UggYgga Ybhž'mci 'UfY'XYWUf]b[ 'mci fgY`ZZ]hYbci [\'hc'Xc'gc'UbX'WUbbch`UhYf'Udd`mZcf'GdYW]U` 7 cbg]XYfUh]cb"

: cf`XYHJ]`g`cZUdd`m]b[ 'Zcf`GdYW]U``7 cbg]XYfUh]cb`UbX`WcbX]h]cbg`Zcf`h\Y`Uk UfX`cZgi dd`Ya YbHJfm UggYgga Ybhžd`YUgY`gYY`h\Y`]bZcfa Uh]cb`cb`I BGK 'g`<u>GdYWU``7 cbg]XYfUh]cb`dU[Y</u>"

D`YUgY'bchY'h\Uhghi XYbhg'k]``bch'VY'fYei]fYX'hc'dfcj]XY'Ubm'XcW'a YbhUfm'Yj]XYbW'hc gi ddcfh'UVgYbWg'Zfca 'Ubm'WUggYg'a]ggYX'VYWUi gY'cZ'7CJ=8!% 'di V`]W\YU'h\ 'a YUgi fYg'gi W\'Ug]gc`Uh]cb"'| BGK 'k]``bch'VY']bg]gh]b[ 'cb'a YX]WU`'Wfh]ZJWUh'g'Zfca 'UbmcbY'XYYa YX'hc'VY'U'dcg]h]j Y'WUgYž cf'k\Yb'h\Ym\Uj Y'fYWcj YfYX"'Gi W\'Wfh]ZJWUh'g'UfY'X]ZZJW 'hhc'cVhU]b'UbX'di h'Ub'i bbYWfggUfmghfU]b'cb ghi XYbhg'UbX'a YX]WU`'ghUZZ''

5 dd`[WUh]cbg'Zcf'gdYW]U``Wcbg]XYfUh]cb'k ]```VY'fYei ]fYX'Zcf'UggYgga Ybh'UbX'dUfh]W]dUh]cb'UVgYbW'g'-Vi hbc'XcW a Ybh'UfmYj ]XYbW'Zcf'7CJ = 8!% ']``bYgg'cf']gc`Uh]cb'k ]```VY'fYei ]fYX''

### GdYWJU 7cbg]XYfUh]cb Ci hWca Yg

5ggYgga Ybhg`\Uj Y`XYZJi`hGdYWJU``7cbg]XYfUh]cb`ci hWca Yg"`H\Y`XYZJi`hci hWca Y`Zcf'h\Y`UggYgga Ybhk]``VY`UXj ]gYX`k\Yb`mci 'Udd`mZcf`GdYWJU``7cbg]XYfUh]cb"'6Y`ck `]g'h\Y``]ghcZdcgg]V'Y`ci hWca Yg.

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

 $\label{thm:continuous} IBGK ``Ug`Ub`cb[c]b[`Wcaa]haYbhhc`ZcghYf]b[`U`W`hifY`cZ`YUfb]b[`]bZcfaYX`VmUWUXYa]W]bHY[f]hm'`5``IBGK ``ghiXYbhg`\UjY`U`fYgdcbg]V]`]hmhc`UX\YfY`hc`h\]g`df]bW]d`Y`cZUWUXYa]W]bHY[f]hm'`D`U[]Uf]gaibXYfa]bYg`UWUXYa]W]bHY[f]hmUbX`]g`bchhc`YfUhYX`UhIBGK "`B'SY[Sde_SfG@EI[eVW{\WSeaXafZWbES`VbSee[YfZW_aX\Sekagdai`ž$ 

Mci 'UfY'U'gc'fYa ]bXYX'h\UhWUfYZ ``h]a Y'a UbU[ Ya Ybh]g'Ub']a dcfhUbhdUfhcZgh XmUbX'cbY'cZh\Y ]XYbh]Z]YX'WUi gYg'cZd`U[ ]Uf]ga ']g'dccf'h]a Y'a UbU[ Ya Ybh'Gh XYbhg'g\ci `X'U``ck 'gi Z]W]Ybh'h]a Y'Zcf fYgYUfW\žXfUZ\]b[ 'UbX'h\Y'dfcdYf'fYZYfYbW]b[ 'cZgci fW/g']b'dfYdUf]b[ 'U```UggYgga Ybh'hUg\_g''

₹d`U[]Uf]ga i]gʻZci bXi]bimci fik cf\_ik \Ybimci i'UfYi]b iZ[fghmYUfžimci fiYVWi fYfik]``cZYfimci i'Ugg]gHUbWYihc
]a dfcj Yimci fiUWUXYa]Wg\_]``g'''H\Yma UmUg\_imci ihci`cc\_'Uhigca Yicb`]bYifYgci fWygžiUhhYbXih\Yi@YUfb]b[
7 YbhfYžicfigca Yh]a YgifYgi Va]himci fik cf\_ik]h\h\YidfcV`Ya iZ[l YX'''< ck Yj Yfia cfYigYf]ci gi]bghUbWygi]biZ[fgh
mYUfžigi W\ugighYU`]b[iUbch\Yfigh XYbhgik cf\_icfidUm]b[igca YcbYihciXcimci fik cf\_žia UmVYi]bj Ygh][UhYX
i bXYfih\YiGh XYbhA]gWcbXi WhDfcWYXi fYg''

FYdYUHYX'd`U[]Uf]ga 'fYj Yb']b'Z|fghmYUfłź'd`U[]Uf]ga 'UZHYf'Z|fghmYUfźcf'gYf]ci g']bghUbWYgža Um'U`gc'VY ]bj Ygh][UhYX'i bXYf'h\Y'Gh XYbhA ]gWcbXi WhDfcWYXi fYg"'H\Y'dYbU'h]Yg'i bXYf'h\Y'dfcWYXi fYg'WUb']bWi XY U'fYXi Whcb']b'a Uf\_gž'ZU]`]b['U'Wci fgY'cf'Zcf'h\Y'a cghgYf]ci g'a UhHYfg'fi]\_Y'd`U[]Uf]ga ']b'Ub'\cbci fg h\Yg]gŁYj Yb'gi gdYbg]cb'Zfca 'h\Y'i b]j Yfg]mm''H\Y'Gh XYbhA ]gWcbXi WhDfcWYXi fYg'UfY'Uj U]`UV'Y'\YfY.

kkk"[g"i bgk"YXi"Ui #dc]Wn#XcWa Ybhg#ghi XYbha ]gWcbXi WhdfcWYXi fYg"dXZ

### 5 WUXYa ]W±bZcfa Uhjcb

### 7 fYX]hdc]bhg

7 ci fgY'WfYX]h']g'WU'W 'UhYX']b'I b]hg!C Z 7 fYX]hfl C 7 L'''H\Y'bcfa U`'k cf\_`cUX'YI dYWfUh]cb'Zcf'cbY'I C 7 ]g'UddfcI ]a UhY`m'&) '\ci fg'dYf'hYfa "'H\]g']bWi XYg'WUgg'WcbhUWh'\ci fgz'df]j UhY'ghi Xmz'ch\Yf'`YUfb]b[ UWfj] ]h]Ygz'dfYdUfUh]cb'UbX'h]a Y'gdYbh'cb'U``'UggYggUV`Y'k cf\_"

A cgh'Wci fgYk cf\_'Wci fgYg'Uhi BGK 'UfY'\*'I C 7 'UbX']bj c'j Y'Ub'Ygh]a UhYX'%) \$'\ci fg'hc'Wca d'YhYžZcf'Vch\fY[i 'Uf'UbX']bhYbg]j Y'hYfa g"'9UW\'Wci fgY']bWi XYg'U'dfYgWf]VYX'bi a VYf'cZ\ci fg'dYf'k YY\_'fh.#k Ł'cZ gW\YXi 'YX'ZJ\WY!hc!ZJ\WY'UbX#cf'cb`]bY'WcbhUWf'5bmUXX]h]cbU''h]a Y'VYmcbX'h\Y'dfYgWf]VYX'WcbhUWf\ci fg g\ci 'X'VY'gdYbh]b'a U\_]b['gi fY'h\Uhimci 'i bXYfghUbX'h\Y''YWh fY'a UhYf]U'ž'Wca d'Yh]b['h\Y'gYh Ugg][ ba YbhgžZ fh\Yf'fYUX]b[ž'UbX'fYj ]g]b['Zcf'UbmYl Ua ]bUh]cbg"

### Cb!WUa di g'WUgg'UHYbXUbWY

#### łł H% &\$&&T D85H9łł

Di V`]WX]ghUbW]b[ `WcbX]h]cbg'a i ghVY`Zc``ck YX`Zcf'U```ZUWY!hc!ZUWY`WUggYg"`Hc`Ybgi fY`h\]gžcb`mghi XYbhg Ybfc``YX`]b`h\cgY`WUggYg'k]```VY`U``ck YX`]b`h\Y`fcca "Bc'cj Yf!Ybfc`a Ybh]g'U``ck YX`]b`ZUWY!hc!ZUWY WUggYg"`Ghi XYbhg`Ybfc``YX`]b`cb`]bY`WUggYg`WUb`gk Ud'h\Y]f`Ybfc`a YbhZfca 'cb`]bY`hc'cb!WUa di g'WUggYg VmGi bXUmž'K YY\_'%"'D`YUgY`fYZYf`hc'mci f`Wci fgYfg'A]\WfcgcZhHYUa g'UbX`A ccX`Y`g]hYg'Zcf'a cfY ]bZcfa Uh]cb`UVci hWUgg'UhhYbXUbWY`Zcf']b!dYfgcb`UbX`cb`]bY`WUgg'gY\W]cbg#U\M]; ]h]Yg"

Mci f\\U`h\`UbX`h\Y\\U`h\`cZh\cgY`]b`mci f`WUgg`]g`Wf]h]WU`m]a dcffUbh'`Mci a i ghghUmUh\ca Y`]Zmci 'UfY g]\\\_`cf`\Uj Y`VYYb`UXj ]gYX`hc`gY`Z]gc`UhY`Vm\\\BGK\\\Y\U'h\\`cf`[cj Yfba YbhUi h\cf]h]Yg"'7 i ffYbhU`Yffg`UbX`U`]ghcZ\chgdchg`Wb`VY`Zci bX`\\YfY"'Mci 'k]```bchVY`dYbU`]gYX`Zcf`a ]gg]b[`U`ZJ\\!\!hc!Z\\\\\U\Mj]hmXi Y hc`]``bYgg`cf`U`fYei ]fYa Ybhhc`gY`Z]gc`UhY"'K Y`k]```k cf\_k ]h\`mci 'hc`Ybgi fY`\\cbh\bi]bi ]hmcZ`YUfb]b[`Xi f]b[\mci f`]gc`Uh]cb`UbX`\Uj Y`d`Ubg`]b`d`U\\\Zcf`mci 'hc`\\Uh\\\`i d`cb`Ubm\\cbh\bhcf``YUfb]b[`U\\Mj]h]Yg`mci 'a Um a ]gg"'K \YfY`h\]g`a ][\hbchVY`dcgg]V`Yž\Ub`Udd`]\\Uh\\chi\cf`Zcf`ZYY`fYa ]gg]cb`a UmVY`X]g\\\ggYX\\': i ff\\Yf\]b\Zcfa Uh]cb`]g`Uj\\U\Y`cb`Ubm\\chi\cf\`fY\f\]b\Zcfa Uh]cb`]g`Uj\\U\Y`cb`Ubm\\chi\cf\`fY\f\\

\$\text{\width} \width \

: cf'a cfY ]bZcfa Uhcbž'd`YUqY fYZYf'hc h\Y

: 5E g. \htdg.#k k k "Wcj \X!% "i bgk "YXi "Ui #gUZY!fYh fb!WJa di g!ZJeg

## ; i ]XY`]bYg

5```ghi XYbhg`UfY`YI dYWhYX`hc`fYUX`UbX`VY`ZJa]`]Uf`k]h\`I BGK `[i]XY`]bYg`UbX`dc`]WYg"'±b`dUfh]W\`Ufžghi XYbhg`g\ci`X`VY`ZJa]`]Uf`k]h\Y`Zc``ck]b[.

- 5HYbXUbWY
- I BGK '9a U]`'5XXfYgg
  - GdYWlu`7cbalXYfUhlcb

• <u>5WUXYa ]W<cbYghmUbX`D`U[]Uf]ga</u>

