

UNION UNIVERSITY UNDERGRADUATE CATALOGUE

Announcements For the One Hundred and Eighty-First Year

2004-2005

UNION UNIVERSITY

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American Chemical Society

Commission on Collegiate Nursing Education

Commission on Accreditation of Allied Health Education Programs

Council on Social Work Education

National Association of Schools of Art and Design

National Association of Schools of Music

National Council for Accreditation of Teacher Education

Teacher Education Program, Tennessee State Department of Education

Tennessee Health Related Boards

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- 6 gzcf Wbgghbhm[ccXkcf_h.Uh]gUcj YU YfU Y
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6ch Dfc[fYggFYdcfhgUbX:]bU; fUXYgUYYfYdcfhXVm`Yhhfk\]Wa UmVY]bhhf! dfYhX]b dYfWbHJ YÚ[i fYg 5 -)!%\$\$z6;)!-(z7 +)!, (z8 *)!+(z: VYck *)"5z6z7zUbX8 UYdUggb[[fUXYg':]gZJ]i fY/B]gU X]h'H\Y[fUXYcZ=z]bX]Wh]b[]bWa d`YhYk cf_za i ghVYa UXYi dk]h\]bh\YÚfghÚj Yk YY_gcZh\Y: U`#Cdf]b[gYa YghfZc``ck]b[]ggi UbW/ch\Yk]gYzh\YWi fgY]g[fUXYXhcfYÛYWhl\Y]bWa d`YhYk cf_"H\Y[fUXYcZ=D`

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5 g U WbX|h|cb cZh\Y|f UXa |gg|cbžYUW |bhYfbUh|cbU gli XYbhk |```VY fYei |fYX hc Ybfc``UgUZ``!ha Ygh XYbh]b Wi fgYk cf_ hU`cfYXZcf h\Yf i b]ei Ycf]YbhUhcb bYYXg hc |bW XY/VI hbchVY`|a |hYX hc/7@ %%~7@ %%~9B; %%~9B; %%~8bX=G7 %\$)" =bh/fbUh/cbU ghi Xybhg k]``VYUxji]gYX VmUb]bh/fbUh/cbU ghi XybhUxji]gcfz Ug k Y`Ug VmUb Ugg[| bYX'ZMV'hmUX; |gcf ||b h\Y|f a U'cf XYdU'ha YbbzXi f||b| 1h\Y|f ÚfghmYU''6ch\ h\Y]bhYfbUhcbU ghi XYbhUXj]gcf UbX h\YXYdUfha YbhU UXj]gcf a i ghiVYWbg `hYX`]b`

5Xalqqlcb'hc'GdYWlU'GiaaYf'Dfc[fUaq

fY |gftUlcb XYMglcbg' fY |gftUlcb XYMglcbg' SX a |gg|cb hc Gc 8 Yg| bYXZcf gYW mYU cZ\]| \ gwcc \(\frac{1}{2}\): |f \(\frac{1}{2}\) gwcc \(\frac{1}{2}\): |f \(\frac{1}{2}\) 8 Yg| bYX7zfgYWMX gtiXYbbgk \c`\UjYWad`YhYXh\Ylf77Yg\aUb`cfgcd\cacfY m/UfcZ\][\gWcc`z: |fghCh/d ghi XYbhgk |``VYU`ck YXhc hU_Yi d hc Zci f W/XX|h\ci fg |bh\YgdYMU|nYX\Wi fgYgZcfh\YWghcZcbYWYX|h\ci fzd`i ga Uhf|UgZYYgcf``UvcfU hcfmZYgzj|ZUdd`|WWY"H\YWi fgY]bglfi Wicfa i ghi fUbhdYfa |gglcb": |bU UWWdHbWY]bhc:]fghGhd]ga UXYcb`mUZhf UdYfgcbU`]bhhfj]Yk k]h\ h\Y]bgffi Whcf Xi f]b[k \]W h\Ygi XYbh|gUg_YXhc XYa cbgfUY\]g#\Yf]bhYYghk]h\ gi ddcfflb[a UYf]Uggi WUg df|bhyX'a UhhfžhLdYgžcf'dcfhzc`|c'dfYgYbhLhcbg'

cf UXa |gg|cb |blc: |fghChYdzh\Ygh XYbha i ghg Va |hUb Udd`|Wh|cb Zcf UXa |gg|cb' hc I b|cb I b|j Yfg|hzïUdd`|Wh|cb ZYYz`\][\gWcc`hfUbgWh|dhUbXUdd`|WWYZYYg"Df]j UY VYXfcca gUbXgYj YfU a YU d`UbgUYcZXfYXUifYj i `U`W``Yj YfUYg |Zgti XYblgXYg|fY

hc``]j YcbWa di g'

F]g]b['<][\'GW\cc\'GYb]cf'Dfc[fUa

91 WidlicbU'\][\'gWcc`'ghi XYbhgžUZhf'Wa d`Yhjb['h\Y'i b]cf'mYuf'cZ\][\'gWcc``z a UniYUfbWr`Y| YWYX|hZcfUX| UbWXXd`UWa YbhVnUHMbX|b| cbYcfVch\ gi a a YfhYfa g'' H\YF< CG`]g`XYg][bYX'Zcf`gYYMMX\][\`gWcc``ghi XYbhg`k\c.

5" < U YWa d'YHX'h Y'i b|cf mW k |h U6 U YfU Ycf U8\$57H7ca dcg|hYcf U - ' \$'G5H'7ca V|bYX'

6"' < U YXYa cbaffUhXhch\Yfdf|bWdUcf[i | XUbWWi baYcfa ZiMYbha Ui f|lmi hcdfcÚhZfca Wo`Y|Ykcf "

6YZcfYVY|b| UXa ||hhXhch\Ydfc| fUa žUbUdd`|Wbha i gha YYhh\YZc``ck |b| glUbXUfXg UbX\UjYl\YZc``ck |bf |bZcfa UlcbcbUY|bl\YCZÚWcZ5Xa |gglcbg

% 5 b UXa |gg|cbg Udd`|Whcb UbX Udd`|Whcb ZYY

&" 5 \ | | \ 'gWcc` 'lfUbgWildhcZÚj Y'gYa YgMfg

' " 5 fYwa a YbXUIcb Zfca I\Ygh XYbh\ddflbVldU cf Wi bgYcf

5 a U]a i a cZgYj Yb gYa YgMf \ci fg a UnW YUbYX]b YUW cZh Y lk c gi a a Yf hYfa g''Chi XYbhg|b h\YF< CCDfc|fUa a UmYbfc```|b Wyi fgYgk \|W k |``bchWybÛ|Walk |h\ WrifgYfgLinc VYghi X|YX|b h\YgYb|cf mYUf cZ\||\gWcc`"

5 ZYYcZ`%\$\$'\$\$dYf\cif|gWUf|YXZcfh\YÚfgh' F<QG\cifg'I dhcZcifUXX|hlcbU ∖ci fga UmVYHU Yb Zcf UÛUhZYYcZ`%) Sžej W Ih UhIh Ya U |a i a WyghXcYgbchYl WYX` `()\$dYfhYfa "Fcca UbXVcUX]gU U`WYUhh\YfY i `U`fUYg'

Bcghi XYbha UndUfhlyldUfy]bh\YF< CGDfc[fUa k\cXcYgbchd`UbhcfYhifbhc \][\gWcc`ZcfWad`YhcbcZh\YgYb]cfmYUf"

GdYW]U``7UhY[cf]Yq'cZ'5Xa]qq]cb

Pfcj JglcbU Shi XYblg K Jl\ ``]a Jl\X`Yl Wdl.lcbgzdfcj JglcbU gli XYblg UY Ybfc``YX Ug XY| fYY!gYY_|b| gi XYblg"H\YgYgi XYblgXc bch\U Y|a a YX|UYUWYgghc cZÚY|U XcW! a Yblg]b cfXYf lc VYZ ``mUXa]lthX"5bmVfYX]hitU_Yb k \]`Y]b h\]ggtUi gk]```bchVY lfUbgXffYX`UgfY|i`Ufa Uf|W\`UhX`WYX|hi bl|`lh\YglUi g\UgcXl\YU`mVYYb WUb[YX'' Chi XYblig k]``VYfYei]fYX hc gi Va]hU`ci hgHLbX]b[]hYa g hc Wa d'YhYUXa]gg|cbg7zf h Ydfcj |gcbU gllh glc VYWUb| YX"

H\Ygi XYbhk]``VYVci bXVmU`[YbYfU`UWXYa]WYei]fYa Ybhg]a dcgXXi dcbZ``mi a Uf]W`UhX`gi XYbhg`gc Zf`Ug`dfYfYei]glhYgžei Ubl]lmiUbX`eiU]lmicZk cf_"5```k cf_`Wa d`YhX`cf`UhYa dhX`k]``VYXcWa YbhX`cb`h\YUWXYa]WfYWfX''

H\Ygi XYbhk | ``g| b UwbhfUwUh\Yha YcZUXa |gg|cb XYUb|b| dfcj |g|cbU glli g UbX`UWdlib| h\Y`|a |htl|cb cZh\Uiglli g"H\Ygi XYbha i gig| b Uk Uj Yf Zcf I b|cb I b|j Yfg|mhc fYei Yghl\cgYXcWa YbhgbYYXYXhc Wa d'YhYh YUXa |gg|cb Ú Y'5 gh XYbhi a UmfYa Ub cb dfcj |g|cbU glli gZcf cb mcbYgYa Yghf UbXh\Ygi VgYei Ybhg\cfhhffa i b YgggdYyU WfWa gllbWgYl |ghUbXUbYl hbg|cb |g[|j Yb |b k f|h|b['Vmh\Y8 |fYWcf cZ5 Xa |gg|cbg' 5 dYfgcbU WbZfYbWrk |h\ h\Y8 |fYWcf cZ5 Xa |gg|cbg' 5 dYfgcbU WbZfYbWrk |h\ h\Y8 |fYWcf cZ5 Xa |gg|cbg umVYfYei |fYX VYZcfYh\Ygi XYbh|gUWdhXZcf UXa |gg|cb cb Udfcj |g|cbU VUgg"

Ncb-DY| fYYSYY_|b| Sh XYbhg Ch XYbhg umVYUXa |hhXhc hU_YWi fgygZcf gdYy|U |bhYybicf Uz Uli |g|lb|c ch XYbhg umVYUXa |hhXhc hU_YWi fgygZcf gdYy|U |bhYybicf Uz Uli |g|lb|c ch XYbhi Zcf Ua U la i a cZ%cya Yghf \cdot\cdot\cdot\cflu fg'7 Ugyga Um

| Ibhryghicf Ug U ij | g|h|b| | 'ghi Xybhi Zcf Ua U | a i a 'cZ%cgya Yghr \ci fg" 7 \Ugyga Um \underset YhU \underset Yb Zcf WyX|hicf U X|hicb UgdUw U U W Y V Ugg "Chi Xybhga i gha YhhU `fYei | fy! O a Ybhg Zcf Uxa | gg|cb hc WUb| Y Zca B cb!8 Y| fYY GYY | b| | hc 8 Y| fYY GYY | b| | ghu g" 5 'Undg cb U Wb Zcf Yb W k | h\ h\ Y8 | fYWcf c Z5 Xa | gg|cbg | gfYei | fYX V Yzcf Y h\ Yghi Xybhi g \underset V Wdh X Zcf Uxa | gg|cb cb h\ | g V Ugg "Chi Xybhg Uxa | hhX Ug bcb!XY| fYY a i ghif Yudd m \underset Y W Yga Ygh Hhfa "

5X jUbWYX'D'UWY a Ybh'UbX'7fYX]h'Vm'9 IU a]bUh]cb

D`UWa YbhlYggXYj YcdYXVmi b]cb1 b]j Yfglma UmVYUXa]b]gYYfYX`]bU`XYdUfl a YblgfYdfYgYbHX]b1\YWfYWff]W`i a "BcWYYJhk]``VYUkUXYXZcf1 b]cb!XYj YcdYX` HYglg/\Y\ci fgfYei |fYX`]b1\YWfYk]``VYgU]gUYXUhU\]|\Yf``Yj Y"

B UłcbU`mfYw[b]nYX`WYX]h'VmYl Ua]bUłcb'dfc[fUa g]bWiX]b['h\Y5Xj UbWX'D'UWa YbhDfc[fUa 'cZh\Y7c``Y[Y9blfUbW'9] Ua]bUłcb'6cUX'ff'996łZh\Y7c``Y[Y @Yj Y'9] Ua]bUłcb'Dfc[fUa 'ff'@9DłZ7cffYgdcbXYbW'UbX'9] htbgcb'WYX]hz'=bhffbU lţcbU'6UWU fYUhYflebUbX'85B H9G'GCH'a UniVYUWdhXX"7fYX]hk]``VYUk UXYX'Zcf'lfUjb[b['ffW]j YX']b'h\Ya]']lUfmgYfj]W]b'UWfXUbW'k]h\'fYwa a YbXUłcbg'cZ ')h\Y5a Yf]Wb'7ci bWj'cb'9Xi Włlcb'fb'79Ł"Ch\Yf'579!Yj Ui UhX'dfc[fUa g'a UniVYUWdhX'i dcb'fYj]Yk"

7fYX]hiUk UfXYX`Vmig WMggZl``Wa d`Yh]cb`cZ7996z̈7@9Dz̃85BH9G`UbX'=6`Yl Ua g`UbXZcf579!Uddfcj YX`hfUb]b[h\fci [\bcb!W``Y[]UhYgdcbgcfYX`YXi Wh]cbz]bWi X]b[`Vi hbch`]a]hYX`hc`h\Ya]`]hUfnzi]gUgg[[bYX`gYa Ygh]f`\ci fg`k]h\ci hei U]hmdc]bhg'

$5X\,j\,UbWYX^*D^*UWY\,a\,Ybh^*Dfc\,[\,fU\,a\,^*cZ^*h\,Y^*7\,c\,^*Y\,[\,Y^*9bhfUbWY^*9\,I\,U\,a\,]bUh]cb^*\\6\,c\,UfX^*fl\,7\,9\,9\,6\,L$

I b]cbI b]j Yfg]hnik]``Uk UXWXX]hik]h\ [fUXYgcZ' cf U/cj Y.

CEEB TYgh	Ub]cb PUfU`Y'Si Vgf]li hY	Cf YX] h
5 fh<]g/cfm'''''''''		
ł Ch X c 5 fh	"""""""bcbY#1 ddYf``YjY`YYMjjY'"""	
6]c`c[mi""""""""""""""""""""""""""""""""""""	"""""6=C %\$\$`#`b#U'""""""""""""""""""""""""""""""""""""	''''''(
7\Ya]glfmi************************************		
7ca di hMf GVMbW5 ************************************	"""""""bcbY#'7G7'@ck Yf``Yj Y'9`YMjj	Y '''''''
7ca di hMf GMMbW6"************************************	"""""""bcbY#'7G7'@ck Yf``Yj Y'9`YMjj	Y******

9b[`]g\`@Ub[i U[YUbX'7ca dcg]h]cb`'""""""""""""""""""""""""""""""""""""	"""""9B; %%#b#U""""""	
9b[`]g\`@ hhfUi fYUbX7ca dcg h]cb`"""""""	"""""""9B; %%&#`b#U"""""""""	************
: fYbW@Ub[i U YUbX7ca dcglhcb """"""""""""""""""""""""""""""""""""	""""":::::::::::::::::::::::::::::::::	************
; Yfa Ub @Ub[i U Y**********************************		
; cj Yfba YbhUbXDc`]l·]VyzI b]l·hXXCHLhYg`'''''''	"""""DG7	
7ca dUfUłj Y; cj Yfba Ybh""""" < jgłcfnž9i fcdYUb	"""""DG7 ' % '# b#U"""""""""""""""""""""""""""""""""""	
< jgtrž9i fcdYUb · · · · · · · · · · · · · · · · · · ·	"""""< =G%\$%&#`b#U"""""""""""""""""""""""""""""""""""</td><td>······································</td></tr><tr><td>< jetrál bjhyx Ghhyg """""""""""""""""""""""""""""""""""</td><td>"""""<=G'&%&#'b#U'""""""""""""""""""""""""""""""""""</td><td>************</td></tr><tr><td>< jgfcfräK cf X</td><td>""""'< =G%%%&# b#U"""""</td><td>**********</td></tr><tr><td>< i a Ub; Yc[fUd\m''''''''''''''''''''''''''''''''''''</td><td>""""""bcbY#; 9C @ck Yf ``Yj Y`9`YM</td><td>j Y''''''</td></tr><tr><td>@Ujb:""""""""""""""""""""""""""""""""""""</td><td></td><td></td></tr><tr><td>A Uh Ya Uh Wg 7UW i g 56 · **********************************</td><td>""""""A 5H&%# b#U""""""</td><td>'''''''(</td></tr><tr><td>A Uh Ya Uļ Wž7UW i g67 ''''''''</td><td>"""""""A 5H&&&# b#U"""""""""""""""""""""""""""""""""""</td><td>,</td></tr><tr><td>D\ng Vg'6:""""""""""""""""""""""""""""""""""""</td><td>""""D< M8%!('#'b#U""""""""""""""""""""""""""""""""""</td><td>······································</td></tr><tr><td>D\ng \&7\frac{1}{4} \text{YWUb} \W^************************************</td><td>""""D< M& %# b#U"""""""""""""""""""""""""""""""""""</td><td>''''''')</td></tr><tr><td>D\ng \\\7197 < '''''''''</td><td>"""""D< M& &# b#U"""""""""""""""""""""""""""""""""""</td><td>''''''')</td></tr><tr><td>DgnWc`c[mi""""""""""""""""""""""""""""""""""""</td><td></td><td></td></tr><tr><td>GdUblg\ @Ub[i U YUbX'@]hMfUi fY************************************</td><td></td><td>*********************************</td></tr><tr><td>GLHgHwg""""""""""""""""""""""""""""""""""</td><td>"""""""A 5H%('#'b#U</td><td></td></tr></tbody></table>	

Df]bVJd`Yg`cZAUMcYWbca]Vg************************************
Df]bV/d`YgcZA UbU Ya Ybh''''''''''''''''''''''''''''''''''''
Df]bV d`YgcZA]VkcYWbca]Vg''''''''''''''''''''''''''''''''''''
H][cbca Yfm""""A 5H%&:#b#U"""""""""""""""""""""""""""""""""""
K Yghtfb 7 jj]`]nLh]cb = 5 bVjybhB Yk 9Ughtc %(, """< =G%% # b#U"""""
$ K YgNfb 7 [j] \cap U = \%(, hch YDfYgNbh = -6\%\& + b + U = -6\%\& + U = -6\%\&$

- $1.~5\,XX]h]cbU \land ci\,fgUYUk\,UXYX hch Yghi\,XYbhk\,]h \ Ugi\,dYf]cf\,hYghgWfYk \land]W \ a\,UmUdd \ m$
- ho U@Ub[iU]Ya Ucf#a]bcfiidcb XYa cbglfUljcb cZdfcUVJYbWnizcfUXa]gglcb ho "SS!`YjY` WoifgYg"
- 11 88%cf 88&UgbYYXYX

$8\,5\,BH9G^{\cdot}G\,i\,V^{\scriptscriptstyle\Lambda}YWh^{\cdot}GhUbXUfX]nYX^{\cdot}HYghg$

7fYX]hk]``VYUkUfXYX7cf`dUgg]b[`gWof	YgUgXYÚbYX`Vm579.
DANTES TYgh	Ub]cb PUfU`Y /Si Vgflhi hY CfYX]h
5bh/fcdc`c[nxx; YbYfU"""""""""""""""""""""""""""""""""""	"""""""bcbY#GC7'@ck Yf``Yj Y'9`YMjj Y'"""""
5 fhcZh\YK YghYfbK cfX''''''''''''	**************************************
5gfcbca mi	""""bcbY#111D< M9`YMj Y'''""""""""""""""""""""""""""""""""""
6i glbYggž=blfcXi Wijcb************************************	************* A; H% #b#U***********************************
6i gbYgg@Uk =************************************	"""""A; H% # b#U""""""""""""""""""""""""""""""""""
6i glbYggA Uh\Ya UljVg™™™™™™™™™™™™	**************************************
7]j]`KUF/FYWobghfiWnjcb''''''''''	**************************************
7c``Y[Y5`[WfUz: i bXUa YbHJg************************************	************A 5H%%%# b#U***********************************
7ca di hMf k]h\ Dfc[fUa a]b[]b 65G=7 """"	"""""bcbY#'7G7'@ck Yf``Yj Y`9`YMjj Y""""""
7ca di hb∣ž=bhcXi Whcb""""""""""""""""""""""""""""""""""""	"""""bcbY#'7G7'@ck Yf``YjY`9`YMj Y"""""
7ci bgY]b[: i bXLa YbHJg'''''''''''''''''	""""bcbY#DQM@ckYf`YjY'9`YMjjY'""" bcbY#QC7'@ckYf`YjY'9`YMjjY'"""
7f]a]bU⁻i gh]₩""""""""""""""""""""""""""""""""""""	**************************************
8f1 [/ 5 Wg\c 5 V1 gY	D9K G \$%# b#U
9bj]fcba Ybh⁄ < i a Ub]hm''''''''	**************************************
9h\JVgJb5aYfJVV***********************************	""""bcbY#D< @'&(' '""""""""""""""""""""""""""""""""""
:]bUbVJU 5 WWi bljb[""""""""""""""""""""""""""""""""""""	**************************************
	***********97: '
: ci bXUJcbgcZ9Xi WJcb************************************	**************************************
< YUhž< YfYŽilo noi f """""""""""""""""""""""""""""""""""	*************D9K G' &(# b#U**********************************
< i a Ub#7i `h fU`; Yc[fUd\m""""""""""""""""""""""""""""""""""""	**************************************
< i a Ub FYgci fWYA UbU Ya Ybh'''''''''	**************************************
@Uk '9bZcfWa Ybłž=błfcXi Wjcb''''''''	**************************************
@]ZYGdUb`8YjYcdaYbhDgnWc`c[mi"""""""	**************************************
A UbU Ya Ybh=b7cfa Uhcb GnghYa g''''''''''	*************A; H' %5:#b#U***********************************
A JXXY9Uglž=blfcXi Wycb hc A cXYfb'''''''''	"""""bcbY#'< =G'9`YMjj Y""""""""""""""""""""""""""""""""""
A cbYmi/ '6Ub_]b[************************************	************bcbY#'97: ''9`YMjj Y**********************************
Cf[\text{W}]nU\rb\U 6Y\U]cf '""""""""""""""""""""""""""""""""""""	
DYfgcbU:]bUbW'''''''	**************************************
D\ng W; Yc`c[mi""""""""""""""""""""""""""""""""""""	**************************************
D\ng W\`GV YbWzDf]bV d`Yg''''''''	"""" ⁴ D< M%%# b#U*""""
Di V]WGdYU_]b[žDf]bVJd`Yg'''''''''	**************************************
Gcj]Yhi b]cbžF]gY/ : U``'''''''''	**************************************
GLHgHVgzDf]bVJd`Yg """"""""""""""""""""""""""""""""""""	**************************************
GidYfjlglcbžDflbVldYg	••••••••••••••••••••••••••••••••••••••
HMWbJW/ K f Jrjb[************************************	bcbY#9`YMajY''''''''''''''''''''''
J Yhbla K Ufž< glrcfm""""""""""""""""""""""""""""""""""""	"""""bcbY#<=G@ck Yf``Yj Y 9`YMjj Y""""""
K Yghthb 9i fcd Yz7cbhYa dcf Umi% (*!% - \$"	"""bcbY#'< =G" &&"""""""""""""""""""""""""""""""""
K cf`XFY][]cbgž=blfcXi VkJcb************************************	"""""D< @' (- `# b#U'""""""""""""""""""""""""""""""""""""

lll Hc[Yh\Yfh\YhkchhglggdVZcfDcM%&ZcfhhUWYf^]WhoglfYdfc[fUag"

- 1 "GYYN Y8 JFYMicf cZHMWYf 9Xi WHICD FY UFXID TO YVYX YI dYFJYDWFYei JFYa YDH"
- 1 1 A UmbchVYHU_Yb UZMFYUfb]b[VMXX]h]b 60C@(&%
- · A UmbchVYHU_Yb UZHYf 6CC@(%"
- A UmbchVYHU_Yb UZMf YUfb]b[VZYX]h]b A; H' % žA?H' & ž6CC@(\$&zcf 6CC@(&%'

- ··· A UmbchVYHU_Yb UZHYf 60C@(')"
- ⁴ A UmbchVYHU_Yb UHMf YUfb]b[VHXX]h]b 7< 9 cf D< M
- 44 A UmbchVYHU_Yb UZHYf 6CC@') \$"

=bhYfbUh]cbU``6UWWU`U i fYUhY

I b]cb1 b]j Yfg|mtk UXgWXX|hZcfg WWggZ `Wa d`Yl]cbcZgYWMXdfc[ftla gcZh.Y=bhYfbU]cbU`6UWNU fYUH"7ci fgYWXX|hk]``VYUk UXYXUg]bX|WhX]b dUYbh.Yggft"=6@Yj Y`fYZfghcGcfG Vg|X|Umi< cf<][\Yfzb#UcfY|h\Yf"Yj Y`]gUWdHVY

	· IB	M]b]a i a	IB	Ub]cb
	Cci fgY	SW/fY	LYj Y	PUTU Y (WYX]I)
	5fl#8Yg [b************************************	"""""""""""""""""""""""""""""""""""""""	••••••••••••••••••••••••••••••••••••••	'''''''5FH&%Ifl
58	5 fh#8 Yg[b************************************	***************************************	""""""b#U"""""	''''''''''''6=C '%\$\$'f(Ł
8	7ca di hMf CVMbW ************************************	""""""" (""""""""""""""""""""""""""""""	"""""""""G'"""""""""	''''''''''''''''''''''''''''''''''''''
A=GG=CBG	7ca di hMf GMMbW ***********************************	"""""""""""""""""""""""""""""""""""""""	"""""""	""""""7G7%&HŁ
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- 6" 5 gli XYbhk]h\Xfuk]b['Aca 'U` Wugyg'k]`` VYfYI bXYX'h]lljcbz\ci gb[WU[Ygz Wi fgYUbXcf]YbhUlcb 'ZYgUWfX]b[hc h\YWUhVYck "FYI bXgcb WIZMf]Uk]`` VYdfcfUhXhc h\YYbXcZh\Yk YY_]b k \ W h\Ygli XYbhk]h\Xfuk g"Cli XYblgk]h

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- i i bXgfYWlj YX7fca 'K cf_g\]d cf 'K cf_ 'Chi XmYa d`cma Ybhk]```VY`]b 'UXX]h]cb hc` h\YgWc`Ug\]d cZZYfYX`]b Cdh]cb CbY'
- i 5 bmghi XYbhifYWlj]b['UA 8 'GWc`Ufg\]d a UmUgc 'fYWlj YUhi]llich 'gWc`Ufg\]d Zcf 'i d'hc * 'gYa Yghf'\ci fg'dYf'UWXYa]WhYUfzhc 'VY'hU_Yb']b 'K]bhhf 'cf' Gi a a Yf' Hnfa g'
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- j H.YA 8 GWc 'Ug\]d k] ``bchWj Yf h]hcb WUf [YgZcf h YU X]hcZUWLgg'
- ¡ H\YA8 GWc`Ug\]d`k]```VY`WgYX`cb`l\YfY[i`U`WLgg`fUhYZcf`l\YgYaYghf`l\Ui h\Y\cifgUYHU_Yb"=ZUb`cb!`]bYWifgY]gHU_YbXif]b[Ubmhhfažl\YgWc`Ug\]d` k]``WjYf`l\Ydcfl]cb`WgYX`cb`l\YfY[i`Uf]b!WLgg`fUh''
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- ¡ İ b]cb I b]j YfglmfYgYfj Ygh Yf][\hhc UhYf h\]gdc`]WriLhUbnfla Y'< ck Yj Yfzg\ci X'h\YhYfa g`cZh\YA 8 `gWc`Ufg\]d`WUb[YXi f]b[`UbniUWXYa]WnYUfzU``gli XYbhg`WffYbhinfYWlj]b[`h\YgWc`Ufg\]d`k ci `X`VYU`ck YX`hc`Wa d`YhYh\UiUWXYa]WnYUFi bXYf`h\YY]gd|b[`dc`]Wrh

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ACC	AWM bljb[Bi glbYggAXa]b]g∕fUljcb 🛛 ◀
ART	Afh	Afh —
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BIO	B]c`c[m	B]c`c[m 📙
BSOL	Of[Ub]nLl]cbU LYUXYfg\]d	Bi gbYggAXa]b]ghtUjcb
CHE	C\Ya]glfm	C\Ya glfm -
CHR	C∖f]gł]UbShiX]Yg	C\f]g∱lUbShiX]Yg
CLU	Cc``Y[YL]ZYUhUb]cb	Cc``Y[YL]ZYUhUb]cb in
COM	Cca a i b]Wh]cb Aflg	Ccaaib]Wh]cbAflg
CSC	Cca di hhf SVMbW	Cca a i b]Wd]cb Aflg
ECF	EWbca]WyF]bUbW	Bi glbYggAXa]b]gffUfjcb Zi
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EGR	Eb[]bYYf]b[Eb[]bYYf]b[
ENG	Eb[`]g\	Eb[`]g\ O
FRE	FfYbW	LUb[i U] Y
GEO	GYc[fUd\m	H]glcfmLbXPc`]l}W/ SVMbW
GER	GYfa Ub	LUb[i U] Y
GRK	GfYY_	C\f]g∱lUbSli X]Yg
HBR	HWfYk	C\f]głjUbShiXjYg (-
HIS	H]grfm	H]glcfmLbXPc`]l}W/SVMbW
HON	Hebefg	IbhfX]gVd`]bUm6li X]Yg
ICS	IbhnfWhifUShiX]Yg I	bgłlii lły Zcf IblłufbU-JcbU UbXIblłufW/ li fU Sli XJYg
LANG	LUb[i U Y	LUb[i U] Y
LAT	LUJb	LUb[i U] Y
MGT	MUbU Ya Ybh	Bi glbYggAXa]b]gffU]cb
MKT	MUf_YI]b[Bi glbYggAXa]b]gfUl]cb
MAT	MU\Ya U}\y	MU\\Ya U}\YgUbXCca di HYf SVJYbW
MUS	Mi gW	Mi gW
NUR	Ni fglb[Ni fglb[
PHL	P\]`cgcd\m	C\f]gdJtbShi XJYg
PEK S	P∖ngdWcEXiWbdjcb, KY`bYggU	bXSdcfh P\ng W\EXiWh]cb, KY`bYggUbXSdcfh
PHM	P\ngd\kg	P\ngdVg/
PSC	Pc`]l}W/SVJMbW/	H]glcfmLbXPc`]l}W/SVMbW
PSM	PgnWc`c[m	PgnWc`c[m
RGL	R.G. LYYCYbhfg	C\f]gHtbShiX]Yg
SIG	S][bLUb[i U[Y	LUb[i U] Y
SK	ScVJU K cf_	ScV)UKcf_
SOC	ScVJc`c[m	ScVJć`c[m
SPA	SdUb]g\	LUb[i U] Y
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TESL	TYUW]b[Eb[`]g\ UgUSYWbb	XLUJ i Ų Y LUJ i Ų Y

7c"Y[Y'cZ'5fha'/'GW]YbWYa

BUYUFUC\]`XYfgMWM]``]bf%-&L"8 YUbcZh Y7c``Y[YcZ5flgUbXCMYbWgUbXDfc! ZYggcfcZ9b[`]g\"5"5"5"5Bcflh YUghA]gglggldd]'7ca a i b]lm7c``Y[Y/6"5"zI b]cbI b]j Yf! g|lm7A"5"UbX8"5"zI b]j YfglmcZA]gglggldd]"5XX[ldcbU gli Xnz< Ufj UfXI b]j Yfglm'i

G. JUb K]`a gf%-&":5 gg: Wilh'8 Yub c Zh Y7 c``Y[Yc Z5 flg Ub XGWhb Wg Ub XDfc Zigg: f' cZ7ca di hhf GWhb W' 6"5 "z? Uh c`]Y_YI b]j Yfghhli@Yi j Yb z 6Y[]i a /A "5 "f9b[`]g\ hz O I b]j YfghmcZA]gg|gg|dd]/A "G" f17ca di hhf GWhb Whz A]gg|gg|dd]/D\"8 "

@ f17ca di hhf GWhb Whz A]gg|gg|dd] GUhYI b]j Yfghnh

JUA Yg PUHMYgcb·ff% -- L": 5 ggc VJUh/ 8 YUb·cZh\Y 7 c``Y[Y cZ5 flg UbX'GVJMbWg Zcf` 7\f]gh]Ub Chi X]Yg'UbXDfcZ/ggcf cZ7\f]gh]Ub Chi X]Yg''6"5 "ZFi l[YfgI b]j Yfg]hm/A "8]j "Z; cfXcb! 7 cbk Y`H\Yc`c[]W' Cya]bUlm/D\"8 "ZDf]bWhcb H\Yc`c[]W' Cya]bUlm/D\"8

8 YdUfh a Ybh cz 5 fh

7c"Y[Y'cZ'5fhg'UbX'GW]YbWYg

: UW i `hm

C\f]gfcd\YfM.NUXLg_Unf1%-'E'DfcZ/ggcfcZ5fhUbX8YdUhaYbh7\Uf"6"5"2Ccih\Yfb` 5f_UbgLgIb]jYg]hm'A":"5"2THIUg5/A27caaYfW'

C\Uf`]YA[bYk :fR\$\$&L"J]glhjb[:=bglfi Wicf:cZ5fh"6"5 "z̃6`i YÚYX:7c``Y[Y/A ": "5 "z̃H\Y I b]j YfglmcZA Ya d\]g"

AUTCD LYYBYDgcb ff% - *Ł"DfcZ/ggcf cZ5 flt"6": "5 "z̃6"Gz̃UbX'A ": "5 "z̃I b]j YfgllmcZH/b!b/ggYYUn? bcl j]``Y'

Ab[YUBfckbf888(E"5@glbhDfcZ/ggcf"cZ5fh"6": "5"z6YacbhIb]jYfglm/A"5"z5iglbDYLmGUYIb]jYfglm

5FH

M]WUY MU`UXf% - %L'DfcZ/ggcf cZ5fhlbX'5fh]gh]bFYg]XYbW''6": "5 "žI b]jYfglmcZ; Ycf[]U/A ": "5 "žI b]jYfglmcZ=``]bc]g"

KUYb L. Mi `XYff%-+E"J]ghhb[DfcZ/ggcf cZ5fh"6"5 "Z6cgcb1 b]j YfglmzA "5"F "ZMUY I b]j YfglmzI b]j YfglmcZJ]f[]b]UD\"8" "dfc[fUa fleb YXi Wh]cbU "YU Yh fci [\ &\$\$(E"

7 iff]Wi`i a

H\Y8 YdUha YbhcZ5 fhdfcj]XYgUb Ybj]fcba YbhUbXWff]W`i a XYj chXhc XYj Y! cd]b[g_]`gzgla i `Ulb[WlhW h\]b_]b[UbXYl dfYgglb[WYUhj]lmk]h\]bh\YZUa Yk cf_cZU7\f]gl]Ub`]VYfU Uflgdfc[fUa "=bh\YZYg\a Ubm\Uf Uflgdi XYblgVY[]bUZci f!Wi fgY j]g U Zci bXUlcbggYei YbW]b XfUk]b[UbXXYg] b"Ch XYblgWa d`YhYUZci f!Wi fgY 5fhc]glcfmgYei YbWUbXdi fg Yj]g U gh X]Yg]b cbYcZgYj YfU UfYLgcZWbWblfUlcb" Ch XYblga UmUgc WccgYhc a Ucf]b 8][]lU A YX]UCh X]Yg"5 b Ufha Ucf k\c k]g\Yg \%a UmfYW]j Y`]Wbgi fY"CYYHWWYf @|Wbgi fY="

H\fci [\XYdUn YbhUnj]l]Yggh XYblga UmdUf]YdUY]bUj Uf]YhmcZfYUYXgYfj]WdfcYMygHf]dggUbXgcVJU Yj Yblg"H\YI b]j Yfglmr5fh; U`YfmdfYgYblgcb[c]b[gYf]YgcZUfhYl\]V]g\][\`][\]jb[Uk]XYj Uf]YhmcZdfcZYgglcbU Uf]ggyNk cf_"=b UXX]f]cbzh\Y[U`YfmdfYgYblgUb Ubbi U`Yl\]V]hcZgh XYbhk cf_UbX[fUX U]b[gYb]cfYl\]V]lg"

; fUXi UngcZh\YXYdUna Ybha Unwbhlbi Ygh X]YgUhl\Y[fUXi UnY`Yj Y`cf`di fg Y k cf_]b`Uj Uf]YmcZUYUgg W`UgX][]HU`]a U]b[ž[fUd\]Wg]``i gfUljcbž]bXYdYbXYbhi gh X]c Uhža i gYi a `[U`YfmgUYgzd\chc[fUd\mxhhUW]b[zcf`k YVdU YXYg][b"

(" 8][]hU A YX]UCh X]Yg GYa]bUf (-\$

6" 5 fh9a d\UdgfYei |fYa Ybha & \ci fg

%" 5FH%% ž%% ž%, ž& &

&" 5FH' (*ž'-, ž(()

' " 5 fh< |ghcfm' % UbX&cZ' % ž' %(ž' %) Í - \ci fg

7" 7ca a i b]Wh]cb5fhg9a d\Ug]gfR(\ci fgLUbX7ca di h)f CMMbW9a d\Ug]gfR(\ci fgL'CYYfYgdYM)j YXYdUha YbhZcf XYH_)g"

III. TYUWY L Wogi f YZcf J gi U Aflg (GfUXYgK-12)

- 5" A Ucf]b 5FHUgok b UVcj Y'A i gli]bWi XY. 5FH 867 8 / &UYUg]b lh Y gYWbXUfmWbWblfUlcb a UmVYi gYX lc ZW]lUYlh]gfYei]fYa Ybli
- 6" DfcZ/gg|cbU 9Xi Wh]cb. 5FH 8) /981 %) \$\textit{\$\tilde{z}\$ & \tilde{z}\$ (\psi_{\tilde{z}}(') /DQM&\tilde{z}' \psi /Q9 \\ &\tilde{x}\) "

7" 5 dd`|WWYdcfhcbgcZh\YDfU |g="

8": cf UXX]h]cbU]bZcfa U-]cbzgYYh\Y8]fYMcf cZHMWYf 9Xi Wh]cb"

IJ. M|bcf |b Afli 24\ci fg

5" 7cfYZcfU`Uha |bcfgl'%) \ci fg

%" 5FH% ž% ž% ž% ž%+

&" 5FH' % cf' %

6" 5 fhi9`YMij YgÌ- ∖ci fg

5ggYgg a Ybh'cZ'AU^cfg

Chi XYblgk | Ih Ua Ucf | b ih Y8 YdUha YbhUYYYei | fYXhc H_Y5FH'-, Zcf UgyYga YbhcZ k cf_ | b ih Ya Ucf Uzhf Wa d'YljcbcZ%\ci fgUgfYei | fYXhc gi Va | hUdcfhzc | c WohUb|b|b| g | XYgcf cf | [| bbU k cf_ | b ih YWcgYb UYUcZWbWbHfUljcb "Dcfhzc | cgk | ``VYfYhUbYX | b ih YXYdUha Ybh'5 fha UcfgUYYfYei | fYXhc dfYgYbhUb YI | JV|llcbcZh Yf k cf_ z5FH(-- z Xi f|b| ih YgYa YgMf cZ| fUXi Uljcb "H. YUgyYgga YbhcZh Ya Ucf | gVUgYXcb ih YYI | JV|! llcbzUb cfU fYj | Yk zUbXUb UflgfiggUhYa Ybh'8 A C#5 fha UcfgUYYfYei | fYXhc a U_YU Zcfa U dfYgYbhUljcb cZfYgYUWz5FH(- SzXi f|b| ih YgYa YgMf cZ| fUXi Uljcb "

GhiXYbh'5 kUfXg

T\Y3ÎD Ak UX]gdfYgYbhXhch\Yk]bbYfcZh\YVYgh\fYY!X]a YbglcbUkcf_]bh\Y 5 bbi U'Ch XYbh5 fh9l \ |V|h'

T\YGc`XYb C]fWYGfUd\]WgDYg[[b Ak UfX]gdfYgYbhXXhc h\Yk]bbYf cZh\YVYgh XYg[[b k cf_]b h\Y5 bbi U Ch XYbh5 fh9l \]V]h'l

7cifgY'CZZYf]b[g']b'5fh'fl5FHL

flE< ci fg7fYX]h': !: U`/K !K]bhhf/G!Gdf]b[/G !G a a Yf

5fh'<]ghcfm

210 T\YAflg]b K Yellfb C]j]`]rLllcb (3) F, K, S, Si

DfYfYei]g|h\#7cfYei]g|h\.'c =G%\$%5 h\hXtbWthgdYhVXWh fu fu Yj Yblg" =blfcXi Wijcb hc h\Ydf]bV|dU gmiYgcZÚbYUhZfca UfW]hWhi fYza i glWidU|bh]b[zgW`d! hi fYz`]hYfUi fYzUbX h\YdfYz[]j]b[YWbca]WifY][]ci gzgcWUzUbX dc`]h]W`fYQcbg Zcf`XYj Ycda YbhzUg k Y``Ug`]bg[\hih\fci [\ Zcfa U`UbUnglg cZ\ck h\YgYZcfa g`UYWbgffi WhX"5 ddfYyJUhcb cZh\YÚbYUhgUgYj]XYbWcZh\Ygd]f]hUbXj Ui YgcZgdYyJÚW ha Yg"

313 AfhH]ghcfmI (3) F

DfYfYei lglhY.5FH8%5"

5 gł fj YmcZdUbhlb[žgW`dhi fYžUfW]hWhi fYžUbXh\Ya]bcfUflgUgfYdfYgYbhXXVmg[!b]ÚWbhYl Ua d`YgcZUfhZfca 'dfY\]ghcf]Wha Yghch\YA YX[Yj U`DYf]cX''

5FH

218 DfUk |b| III (3) F cf S

DfYfYei]glhY.5FH%+"

5 Xj UbWX'gi XmcZXfUk]b[Ya d\Ug|n]b[1\ YXYj Ycda YbhcZdYfgcbU Yl dfYgg]cb UbX Wi]hWr UbUng|g"G|| 'gi X|c \ci fg#k YY_"

220 ShljbyxG`Ugg(3) AgNyyxyx

5 'Vlg|W|blfcXi W|cb lc lh Y WddYf Zc]``a Yh cX cZgLlbYX [`Ugg"H\YWlh]b[ž[fcn]b[ž [f]bX]b[žÚh]b[žZc]`]b[žLbX;g: XYf]b[cZgLlbYX [`Ugg'k]``VY'l d`cfYX"

221. GfUd\]WDYg[bI(3)F

DfYfYei |g|hY.5FH% cfWbgYbhcZh\Y]bgfiWhcf"G|l ghiX|c \cifgdYfkYY_"

5 gli XmcZl\Yl\Wb]ei YgzdfUM]WgzUbX'\\Y\]glrfmcZl\Y; fUd\]W8Yg[b ÚYX"5 ll h\blqcbk]``VY[jj Yb lc Vlg\WbWdlgUbX\\Wb]ei Yg]bj c'j YX]b l\\YdfYdUfUjcb cZUfli Zcf Wa a Yf\]U fYdfcXi Wjcb UbX'\\Yi gYcZl\YWa di l\\f\UgUXYg[b lcc`"

231. P\chc[fUd\m1 (3) F, S

DfYfYei |g|hY. 7Ua YfUk |l\n a Ubi U`mUX1 g!UVYUdYfhi fYUbX'g\i lhhf gdYYX" =blfcXi Wqcb hc dfcWggYgUbX'Uygh Yf|W' j Ui YgcZVUW'UbX'k \ |lhYd\chc| fUd\nž||b!

Wi Xjb[VlgjVWVa YfUtbXXtf_fcca hYWb]ei YgzWbhYbhUbXWa dcglhjcbztbXtb]bhfc!
Xi WijcbhcYl dfYggjj YtbXXcWa YbhIfmk cf_gtdd`]WWYhcthtbX°ci fbU]ga "Chi XYbh
Zi fb]g\Yg'Ua 'tbXXtf_fcca 'gi dd`]Yg'Zcf'dfc^YWg''G|i 'ghi X|c \ci fg#k YY_"

232 P\chc[fUd\mII (3) F, S

DfYfYei |g|hY.5FH&%

5 Wobljbi]b['Yl d`cfUljcb cZd\chc[fUd\mk]h\ 'Ya d\Uglg cb WMUlj YYl dfYgglcb UbX' j]gi U 'Yl dYf]a YbhUljcb "Gll 'ghi X]c \ci fg#k YY_"

242 Pf]bla U_]b[I (3) AgNYYXYX

)(DfYfYei |g|hY.5FH% cf% "G|l ghi X|c \ci fgdYfk YY_"

5 b | |blfcXi Vlijcb lc df||bl||b| | |b ||\ YdfcVlggYgcZ=|blU \|]cžFY | YZUbXD Ubc | fUd \ | W

311-2 PUbHb[I-II (3) F. S

DfYfYei |g|hY.5FH%%"

HUX|h|cbU`dfUM|WgUbX`UddfcUWYghc`gh`X]c`c]`#UMm]WdUbh|b["'9a d\Ug|gcb`Wb! ||bi YXj]gi U`XYj Ycda YbhUbX'h\Yi gYcZWr`cf"G|l`gh`X]c\ci fg#k YY_"

3167. CYfUa JVgÍ III, IJ (3) F, S

DfYfYei |g|hY.5FH8%+"

7 cbł]bi YX k cf_]b WfUa]WggfYgg]b[Vch Wrbgfi Wijcb HWb]ei Yg UbX XYg][b df]b! VJd Yg '5 gli XmcZ[`Uh]b[`UbX Úf]b['HWb]ei Yg "G]] gli X]c \ci fg#k YY_"

323 SW/dh fYI (3) F

DfYfYei |g|hY.5FH%#"

5 b`]bhfcXi WacfmWoi fgYhch\Yj Uf]ci gdfcWggYgzhcc`gzUbXhWVb]ei Ygh\UhUYi gYX]b` WMUHb[''!X]a Ybg|cbU`gW/dhi fY"G|i ghi X]c`\ci fg#k YY_"'

324 SW/dh fYII (3) S

DfYfYei lglhY. 5 FH%%"

A cXY]b[UbXWghb[]b j Uf]ci ga Uhf]Ug"Gl gh X]c \ci fg#k YY_"

333 SW/dli fYIII L|ZYMcXY|b| (3) F

DfYfYei lglhY. 5 fh' & "

=bX|j]Xi U XYj Ycda YbhcZgW`dhi

b · cZ

b

Y- da

343 Pf]bla U_]b[II (3) AgNYYXYX

DfYfYei lglhY.5FH&6&

7cbl]bi]b[cb 5FH & & k]l\ Ya d\Uggcb XYj Ycd]b[j]gj U Yl dfYgg]cb UbX WbWdh l\ fci [\ l\ Ydf]bha U_]b[a YX]i a g"G]l ghi X]c \ci fg#k YY_"

DfYfYei |g|hY5FH&&%"G|l ghiX|c \ci fgdYfk YY_"

5 Wobł)bi Ułjob cz; fud\]W8 Yg[[b'=k]lh ''Ya d\Uglg cb'UXj UbWX'XYg[[b'hWwb]ei Ygz ghi X]c dfWhWgzUfk cf_ dfYgYbhUłjobzdi V]Whlob XYg[[bzdfY!dfYgg a Yh\cXgz Wcf gYdUfUljobzUbX'gWbb]b["

346 GfUd\]WDYg[bIII(3)F

DfYfYei |ghY5FH8&&"G| gh X|c \ci fgdYfk YY_"

5 Wa dfY\bgjj Ygli XmcZHnd\zi]lg\|g\cfmzg\LbXLfX\UbX\WM\lj Yi gU\ziUbX\lf\bXg\" = 5lhhbljcb\k]``VYd\U\Xi dcb'a YUgi f]b['gngha gz\wa dcgllcbz\UbX\h\Y]bÛi Yb\YcZ \\ \h\Y\wa di hhf\Ug\Uhnd\Y\X\g| b\lcc\"

398 J]gi U AflgSYa]bUf II: M]XPfc[fUa RYj]Yk (1) Fcf S

DfYfYei]glhY.5FH%,"

FYj]Yk cZgłi XYbhk cf_ k]h\ 5 fhZW/`hmZcf X]fYWljcb UXWUF]ÚWl]cb cZh\ Yg WYggZ `` Wa d`Yl]cb cZh\ Ya U'cf"Hcd]Wg]bW XYa U_]b['g]XYg cZk cf_za clij Ul]cbU [[Zg Ug gYgga YbhzYl d`cfUl]cb cZWfYYf dUh gz]bhYfbg\]d cdl]cbgzUbXfYg a YVi]`X]b["

411-2 PUbl|b[III, IJ (3) F, S

DfYfYei |g|hY. 5 FH' %&"

7cbł]bi YXXYj Ycda YbhcZdU]bł]b['k]l\ Ya d\Ug]gcb`Yl dfYgg]cb`cZdYfgcbU'j]glcbž Yl dY]a YbhLl]cbzUbX`XYj Ycda YbhcZUVcXmcZk cf_ 'k \]W`]bX]WlYgUX]fYWl]cb`cZUfl]gljWli fgl]l'C]l 'gli X]c\ci fg#k YY_"

))

4134 AXj XAfhShiX]c (3) F, K, S, Si LXYei |gl/AXtbgYbhcZh\Y=bgffi Wicf

5 Xj UbWX gli X|c Wi fgYZcf dfcZYgglcbU XYj Ycda Ybh|b UbmcZh Ya Ucf UYUgcZh Y XYdUha Ybh a YYl|b[Uhh YgLa Yh|a Yh YdUU Y gli X|c]ggWYXi 'YX''

YX*

424 SW dli fYIJ (3) F LYXei |g|hig 5 fh' ' ' " -bXlj |Xi UXYj Ycd(a bU

S

a

5FH

)*

7" 6=C (&) ž(&* ž(&+ž UbX (-,

8" 6|c`c[miYYMij Y(\ci fgfR&%UbX&&&Udd`mcb`mhc[Yh\YfL

II. TYWYf L|Whogi fYIb B|c`c[m(GfUXYg7-12)

- 5" A Ucf fYei |fYa YblgUgo\ck b Uvcj Yhc |bWi XY6=C 88% 288 25 UbX" %"
- 6" 5 XX]h]cbU fYei]fYa Yblig D< M%&D< M&% / '&% ftbf & %/ '& &L
- 7" DfcZYgg[cbU 9Xi Wh]cb. 98 I % \$z& \$z' &*z(% z(' ' /DQM&% z' % /Q9 &&)
- 8" 7ca d'Yhcb cZUdd'|WWYdcfhcbgcZh\YDfU |g="
- 9": cf UXX|h|cbU ||bZcfa U||cbžgYYh\Y8||fYMcf cZHMWYf 9Xi Wh||cb"

III. M|bcf |bB|c`c | mi 23\ci fg

- 5 " 6=C %&
- 6" Hk c 8\$\$! Yj Y 6=C Wdi fgYg
- 7" H\fYY' \$\$! Yj Y 6=C Wi fgYg

5ggYgg a Ybh cz AU^cfg

6]c`c[ma Ucfg'UYfYei]fYX1c H_Y1k c 1Mfa]bU Wi fgYg'Ug'UfYei]fYa YbhZcf' [fUX] i U1;cbz6=C '(&+zFYgYUW DfYgYbHJ;cbz'UbX'6=C '(-, zGYa]bU"H\ Y8 YdUfa YbhUXa]b!]gMfg'h\ YA Ucf': [YX'9] Ua]bU1;cb lc gYb]cf 'V[c`c[ma Ucfg"

Gh i XYbh Cf [Ub]nUh]cbg

S][a UNYHU]gUbUH]cbU \cbcfUmgWMbWgcWMmZcfh\cgYk\c\UJYWa d`YHX%) \cifg]bbUh fUgWMbWUbXa U\Ya UHWGUbXk\c\UJYUa]b]a i a; D5 cZ "\$]bh\YgYWi fgYg"A Ya VYfg\]dUXj UbHU Yg]bWi XYfYWf b]H}cbZcfUWXYa]WWJYj Ya YblgVmH\YG[a UNYHU< cbcf5k UfXzdUH]WdUl]cb]bbUH]cbU`mfYWf[b]nYXfYgYUW dfc^YWgzUbX`Ua YUbgcZWcdYfUl]cb]bga] "UfUYUgVmgh XYblgcZXJZXfYbhWc`Y[Yg"

Bjc`c[jggIble OVgYfj jb[h\YMUgYYfj\EUfh\, BIOMEzgYfj Yggi XYblg]bhYYghX]b`Yl d`cf]b[h\Yk cf`XcZV]c`c[mVinebXh\YWLggfcca "6=CA 9 jgXYgl[bYXdf]a Uf]`m\zcf`Vjc`c[ma UcfgUbXa]bcfgVi hjgcdYb le UbnebYk]h\ Ub]bhYYghjb Vjc`c[m'5 b cb[c]b[`dfc'YMcZ6=CA 9 jghe dfcj]XYa Yblefghe U``jblfcXi WlefmVjc`c[m'gi XYblg"

GhiXYbh'5 kUfXg

T\YB]c`c[mRYgYUW Ak UX]g[]j Yb`Vmih\YZUW`hmcZh\Y8 YdUfla YbhcZ6]c`c[mhch\Ygli XYbhk\cdfYgYblgh\YVYghfYgYUW dUdYcZh\YmYU"H\YfYgYUW'a i gh\\y YVYb`Ub`cf][]bU`d]YW`cZk cf_UbX`a i gh\\y YVYYb`dfYgYbhYX`UhUgYUhz`fY[]cbUz`cf`bUhcbU`dfcZygdcbU`V|c`c[ma YYhlb[`df]cf`hc`[fUXi Uhcb"

K \]htu_ tf Fftg\ a Ub B]c`c[mAk UtX"H\Y8 YdUfa YbhigYYttigUZYg\ a Ub a Ucf'cf' a]bcf VUgYX'cb ci lightbX]b['gWc`Ugt]WUW]Yj Ya YbhžÚbUbYJU 'bYYX27\f]gt]Ub 'gYfj]Wz UbX'gWcc`'gd]f]li'

7cifgY'CZZYf]b[g']b'6]c`c[m'fl6=CL

flE< ci fg7fYX|h:!:U`/K!K|bhMf/GGdf|b[/Gi!Giaa Yf

100 Si fj YmcZB]c`c[]W/ CcbWdlg(4) F, K, S

5 Wii fgYZcf bcb!gWhWa UcfgZcWgYXcb h YVUgWJXYUghc YbUVYghi XYbhghc UddfY! WUHYh Y`]j]b[k cf`XUbXh Y]f`fYUlcbg\]d hc]h'Hcd]Wg. h YW`ž[YbYl]WWUgg cZ`]ZZž V]cX]j Yfg|hzzgh fj YmcZh Y) _]b[Xca gcZ]ZZžYW`c[nzUbXh YYbj]fcba Ybh'H\fYY\ci fg cZ`YWM fYUbX&\ci fgcZ`UVcfUrcfn#k YY_"B c WYX]hlrck UX`6=C a Ucfg#a]bcfg"

112 Pf]bV/d`YgcZB]c`c[m(4) F, S

21551/20344511Vg/(4h)5Yh c IO'c[m(4) S

5 'ghi XmcZh\Ydf]bVld\YgcZ\YfYX]hmi]bWi X]b['Vch\ 'WLgg]Wr 'UbX'a c`YW'Uf'[YbYl]Vg'' H\fYY\ci fgcZ`YMi fYUbX'' \ci fgcZ`UCfUrcfn#k YY_"'

316 P\nodc'c[m(4)S

DfYfYei]g]hY. '%& 6=C '\ci fgfi \fc] h % '

8 YdUfh a Ybh cZ 7 \ Y a]ghfm

7c"Y[Y'cZ'5fhg'UbX'GW]YbWYg

:UWi`hm

RUbXnF.Jc\bglebf%-(E'DfcZ/ggcfcZ7\Ya |gfm1bX8YdUfla Ybh7\Uf"6'GZI b]j YfglmicZA |ggcif]zZd"@ci |g/D\"8"zHM Ug'HWI b|j Yfglmi

 $\textbf{C} \ \textbf{Uf YgM. BUXk]bfl/s} + \$!, \% \%, , \ \texttt{E''C''D''UbX9j Umb} < \texttt{Ua a cbgI b]j YfglmDfcZ/ggcfcZ}$

- 7" D\ng \W \&\! \&\(\cf \& \% & &
- 8" 7ca di hhf CM/hbWfl \ci fgLUbXA 5H%%cf dfYZ/fUVmA 5H&%
- 9" 5 a |b|a i a cZ'' \ci fgcZA YX|W HWbc`c[mLhUb UZÚ]UHXX \cgd||HU Uz h YZci fl\ m\uf cZghi Xm

III. MUcf | b C\Ya | WV P\ng | Wai 112 gYa Ygh f\ci fg

8 Yg| bYXZcf h\cgYgYY |b| UVfcUXVUW| fci bX |b h\Yd\ng|W g\MbWghc di fgi Y [fUXi Uhrk cf_ |b WYa |gffmcf d\ng|\vccf g\wbXUfmh\uW\f`]\wbgi f\zih\Ya Ucf dYfa |lpgdi XYblgk |lh dfYj |ci g Yl dYf |YbWg lc g\cfhYb h\Y ha YgdYbh |b Zcfa U YXi Whole k lhci hfYXi Vhb[hYei U]lmcZhYXY fYYcVhUbYX"

Gi XYblgk |l\ Ub UX UbWX dfYdUUlcb |lb gYWbXUfmgWcc\cf Ug Wc\YJ Ygcd\c! a cfYga UniVygYYWXXZf h\gdfc|fUa "9blfUbWUgUZYg\a Ub fYei |fYgUb 57H 7ca dcglhrcZ& cf\][\Yfk |h\ UA U\ 57HcZ&) cf\][\Yfz(i b]lgcZ\][\gWcc` a Uh, k. ||h, U6 Uj, YfU, Ycf VYHMZ\][\gWcc`WYa.|gfmLbXd\ng|WK, ||h, U6 Uj, YfU, Y cf VYHMZUbXUgi WYggZi `dYfgcbU |bHYfj |Yk k |lh UZUW `hmUXa |gg|cbgWa a |lHYY"

- 6" D< M& %z& &z' %xz' % z' %(/' & cf'(&\$/(' \$Í & \cifg
- 7" D< Mcf⁻7< 9'(&(/D< Mcf⁻7< 9'(-, /I ddYf⁻Y) Y D< Mcf⁻7< 9Í *\ci fg
- 9" 9B; %%%%% &\$%cf &\$&\dagger \ci fg
- : " 5FH&%/7< F %%/2% &/UbX-\ci fgcZgcV|U gV|MbWl/ % \ci fg

IJ. TYUWY L L Wood f Yk h Ebxcfg Ya Ybh b C Ya leffm 7-12

- 5" 7ca d'YhYh YfYei |fYa YblgZcf h Y7\Ya |glfma Ucf Ugg\ck b Uvcj Y|bW X]b['7< 9'(\$)"
- 6" DfcZYgglcbU 9Xi Whlcb. 98 I % Sz& Sz' & z' (% z' (' ' /DQM&% z' % /C9 &
- 7" 7ca d`Yhcb cZUdd`|WWYdcfhcbgcZh\YDfU |g="
- 8": cf UXX|hcbU |bZcfa UhcbžgYYh Y8 |fYMcf cZHYUWYf 9Xi Whcb"
- J. TVANYFYHMYHDIFAXX \MHCh:\EEDDX156Y257b26H5418Y432HP6M2CR\316Y8F2225
 - 5" 7ca d`YhYh\YfYei |fYa YblgZcfh\Y7\Ya |WVD\ng|WyfYk |hV Yef HMWYf]gh

dfcZigglcbU'df]XY]b'h\YWYa]W'g\MbWgžk\]'YglJa i `U]b[Uk UYbYggcZh\YfYgdcb!gV]`]l|Yg'UbX`WU`Yb[Yg`cZh\Ya cXYfb`WYa]gl"A Ya VYfg\]d']g`cdYb'hc Ubnigli XYbh di fg]b[Ub'i bXYf[fUXi UY'XY[fYY]b WYa]gfmicf'd\ng]\y' S][a UNYHU

421. HYa Uc`c[mLbXCcU i `Ulcb (7)

5 dd`]Wl]cb cZh\Ycfmlr hWb]W dYfZcfa UbW]b\Ya Uc`c[]W dfcWXi fYgk\]W UX` |b WUzg|UWl]cb cZUbYa |Uzz`Yi _Ya |UzzUbXch\Yf VccXW``Ubcfa U]|HYg'

422. AXi UbWXM]VlicV|c`c[m(7)

5 "YMni fYUbX"UVWni fgYWnj Yf]b[1\ Yfc YcZa]Miccf[Ub]ga gUgh\ YmMni gYXlgYUgY]b a Ub" A Yh\cXgYa d`cmYX]b h\ Y]XYbh]ÚWnljcb cZVVMMf]UžZ b[]žj]fi gYgžUbXf]WYlhgUY"

423 SYfc'c[m(2)

5 "YMnifYUbX"UVWrifgY]b]a a i bc`c[mxiXYa cbglfU]b[fYUM]cbgVYlk YYbUbl][YbgUbX"Ubl]VcX]YgUfYWrbg|XYfYX"IgYcZh, YgYfYUM]cbgUgYfcX]U[bcgl]Wrcc`]gdfYgYblYX"

424. Ia a i bc\Ya Utc`c[m(5)

⇒Wi XYggYYMjcbziYgjb[UbXVYYX]b[cZXcbcfgz]XYbljÚWljcbcZVccX[fci d'Ublj[Ybg UbX'Ubl]VcX]YgzdfcWXi fYgYa d'cmYX]b dfcj]X]b[Wa dU]VYVccXZcf dU]YblgzUbX'df]bWd YgUbX'dfcWXi fYgi gXX]b VccX]b" UbQ gbA f

+%

```
("'DG7'88% ž8% ž''&i - \cifg
         ) "CYb|cf GYa |bUf (-, |b Y|h Yf DG7žD< @žcf 97: Í (\cifg
      6" 9 YMJ YW fgYdcc Í gYYM, \ci fgk |h Uh YUhcbYZfca YUW fci d
         %" 97: " & ž')) ž(%ž(%ž(' $
         &" D< @' () /< CB '&\&ž&&\ž' &\\ž' ($
         ' "' DG7 " % ž' &( ž' &) ž' ( ( ž' *$ž(%
      7" DD9 a UcfgUfYY Ya dhZfca h\YfYei |fYa YbhcZWa d`Yhb | Ua |bcf
     MUcf |b P\ |`cgcd\m(GYbYfU Shi X|Yg)Í 30\ci fg
      5"D<@&($\vec{z}'(*\vec{z}'(+\text{I} - \cifg)
      6" Hk Yj Y\ci fgZfca D< @. &(' ž' ' - ž' () ž' (- ž' **ž() &
      7" 7< F"', Í '\ci fg
      8" D< @9`YMdj Ygf * \ci fg
      9" =b h\ ]ga Ucfz< CB & UbX & hc [ Yh\ Yf a Ung Vghh hYZcf D< @ & $Vi ha Un
         bchWi bhlck UTX Vch hYa Ucf UbX Ub =bhYfXlgVld |bUfm< cbcfg A |bcf cf
         Ub =bhhfX|g\hd`|bUfmChi X|YgA |bcf"
A]bcfg'CZZYfYX'Vm'h\Y'GW\cc`
  I. M]bcf ]b C\f]gf]Ub Shi X]Ygf 23\ci fg
      5 "FYei ]fYX'Wri fgYg '7< F'% z& %z' $) z' ' ' z' ' , zD< @&($"
      6" 9`YMaj YžgYYMa" \ci fgZfca "7< F Wai fgYg"
      7" 7< F'&(' 'cf'&((
     M|bcf|bP||cgcd|nf 18|cifg
      5" D< @'&( $\vec{z}' (*\vec{z}' (+\vec{l} - \ci fg
      6" GYYM: \ci fgZfca . D< @&(' ž' ' - ž' () ž' (- ž' ** ž() &
      7" < CB 8% UbX 888 hc[Yh Yf a Umg Vghli hY 7cf D< @ &( $ Vi hVmi b); Yfghm
         dc`|Whia UnibchVYXi d`|WhYX`|b'Ubch\Yf'a Ucf#a |bcf"
III. M|bcf|bB|V|WLUb[iU|Ygl 26\cifg
      7< F'%% ž&'%'; F? '&%ž&%ž' %%ž' %&ž(%%'< 6F' %%ž' %&
```

IJ. M]bcf]b Mci h M]b]gfmí 21 \ci fg

 $5''' 7 < F' & \# \% \ddot{z}' + \& \ddot{z}' +) \ddot{z} (+\% \ddot{z} (, \% \dot{x}) \land ci fg$

6" GYYMdk c'Zfca . 7< F % ž' ' ' ž' ' , ž' *- ž' +'

J. M|bcf|bC\f|g|UbEh|Wa 20\cifg

5" 7cfY. 7< F '& %z&(' z&((

6" 9 YMnij Ygi gYYMni%& \cifg | b 7 \f]ghlUb Yh \log W

M|bcf |b $T \ Cc = 1$ 23\ci fg

5" 7< F & %z' ' \$z'', z', &z', 'Í % \ci fg

6" GYYMM&Zfca. 7< F′(, &ğ(, 'ğ(--Í *∖cifg

7" 7< F'' - cf' **Í '\ci fg

5ggYgg a YbhˈczˈAU^cfg

Chi XYbhgk || N Ua U'cf || b N YGWcc`cZ7\f|ghlub Chi X|YgUYYfYei || fYXhc Hu_Y7< F (-, ž GMb|cf GYa |bUzZUgdUfhcZh\Y|f | fUXi Uf|cb fYei |fYa Ybh H\YgYa |bUf |gcZMfYXY| Yfm gya Yghf UbXa i ghVYhU Yb Xi f]b[h\Ygh Xybhygyb]cf mYU"

Gh i XYbh Cf [Ub]nUh]cbq

5 M|b|gHf|U AggeVILHeb|gU U'WYZef ghi XYblgYbHf|b| 1\(\lambda\) YdfYtW|b| #dUglefU' a |b|gffmH\|gUggcVJUHcbaYMgacbh\mZcfh\YdifdcgYcZgffYb|h\Yb|b| h\Yh|YgcZ ZY`ck g\ |d Ua cb| |h\cgYcb Wa di gk \c UYWa a ||h\Xhc h\Y| cgdY a ||b|gfm"

GhiXYbh'5 kUfXq

T\YNcbXYfj Ub GfYY_ Ak UX |g dfYgYbhYX hc h\Ygh XYbhk \c g\ck g h\Y | fYUh'gh UW|Y| Ya Ybh|b 6|V |W Gi X|Ygk |h UVUW| fci bX |b; fYY_"

415 PcYlfmLbXK]gXca L]lYfUi fYcZh YO`XTYgHa Ybh(3) SÍ OXXMUfg

DfY! cf 7cfYei]glhY. 7< F & %

5b']bhNogj Yghi XmcZ< WfYk 'dcYfmiUbX'k]gXca ``]lMfUh fYUgfY][]ci g``]lMfUh fYUbX` Ug``]lMfUmZcfa g''5b'Yl Y[Yl]Wl`ghi XmcZgYYMMX'dcYlfmiUbX'k]gXca ``]lMfUh fYflxVz DgUa gžDfcj YfVgYUbX'9WWgUghYg!''

416 MUcf Pfcd\Ylg(3) FÍ OXXMUfg

DfY! cf 7cfYei |g|hY 7< F & %

5 gli XmcZh Ycf][]b UbXXYj Ycda YbhcZ< YVfYk dfcd\YMx/UbYl Yl Yl]Wr gli XmcZgca Y cZh Ya Ucf dfcd\Yl]Wlcc_gcZh YC XHMgLa Ybh'

423 T\YJc\Ubb]bYL]hhfUi fY(3) SÍ OXXMUfg

DfY! cf 7cfYei |g|hY.7< F & %

5 b | bh/hbg|j Yghi XmcZh\Y; cgdY cZx\b UbXh\Yx\Ubb|bY9d|ghYg"

7 f]gh]Ub'9h]Wg'f17 < FL

243 AddfcUWYglc McfU DYMglcb MU_lb[(3) F

FYNdfcWrWxXhD<@&("GYYD<@&("ZcfWrifgYXYgWildhcb"

244 Ccbha dcfUfmlggi Yg|b C\f|gd|Ub Eh |W(3) S

DfYfYei |g|hY. FYWda a YbXYX 7< F &(' "

5 b 'Yı Ua]bUljeb cZh\Ya eghg[b]ÚWbhWbhYa defUma efU]ggi Yg'ZMb['l\YWi fW UbX 5 a Yf]Wb geVMmxk]l\ Ya d\Uglg eb 7\f]gl]Ub fYgdebgY Veh]b hYfa g eZa efU Wbj [Wheb UbX a efU Yb] U Ya Ybh'

344 H]glrcfmcZC\f]gl\Ub El\]W(3) F\(\) Ej Yb M\(\)Ug

PHT d'cfUjcbcZh\XX\YfjhY(YkQZT7\f]\XX\UbacfUfxbacfUfYÛYVkJcbzZfcaÚMFF XXXVgfjU &JU

+'

444. Ibhhbgji YIggi YSYa |bUf (3) SÍ Ej Yb MYUfg

DfY! cf WyfYei |g|hYg 7< F &(' ž7< F &('

5b | bhhbg| y YubUng| gcZcbYa Ucf | gai Ycf Wight cZ | gai Yg | b Wobhia dcfUm7\f|gh|Ub Yh\ |Wozhu [\hi|b gYa |buf ghm`Y"

$7 f]gh]Ub^A]b]ghf]Yg^f]7 < FL$

271. Mti h M]b]gfm6lfUM [Yg(3) FÍ Ej Yb MVfg

5 gli XmcZnci l\ a]b]gfmZcWg]b[cb l\ Yj Uf]ci gUddfcUWYgža Yl\ cXgžUbXgffUY[]Yg k]h dfWMW Udd]WhjcbgZcf dfc[fUa a]b[ž[cUgUbXXYglfYXci hWa Yg'

307. FUIA-BUJYXScVIU SYfj JVVg(3) S

FYNIdfcW/VinxlhCK 'S+"GYYCK 'S+ZcfWifgYXYgVildhcb"

363 B|V|W PfYW|b| (3) AgNYXXX

K | Ih dt Unijwu una jwa jeugaa i 307. FU|h - Bleyx Sc Viu SYfj] FYWelfe W WAX | h CK " S+" CAYO 363. B | V | W PYVW | b | (3) Aş G 5 gi XmcZh Y V g | W W b | ei Ye U a | b | g h f | U gi XYb | g' 80. DfY cf 7 cf Yei | g h Y 7 < F & % 5 W f o XYO | b YX b XYU k | h 5 gli XmcZh YVUgWNWblei YgcZgYfa cbdfYdUfUlcbUbXXY lj YfmFYWa a YbXYXZcf

365 PUdcfU MlbldflYg(3) AgNYXXX

5 WrifgYXYg| bYXhc XYU k |h\ h\ YdfUMqWV k cf_cZh\ YdUghcf"

367. IblfcXi Wijcb lc C\f]gl]Ub Ej Ub[Y]ga (3) AgNYXXX

Dfy!cf~7cfyei]gwww.77&F#9182888YT

H\Y6|V\W\'UbX\'Xc\Mf|bU\'V\\g|g\Zcf\'Y|\Ub| bcZ\\\ j fß]W*V* cU .

7\f]gh]Ub'H\Yc`c[m'fl7<FL 330 B]V`]W\T\Yc`c[m(3) FI Ej Yb MVLfg

DfY! cf 7cfYei |g|hY.7< F & %

5b Yl Yl Yl]WhYxdfYgYblUlcbcZhYhYc`c[]WhYW]b[gcZhYC`X`UbXBYk HgLa Yblg"9a d\UglgcbhYgi XYbhi bXYfgLbX]b[hYa UbhYW]b[gcZhYZ]h]bhYfcf][]bU`WbhYl hgz`\]gcf]W`XYj Ycda YbhcZh\cgYhYW]b[ghfci [\ci hV]v]W`\]glcfnzUbX]a d`]Wl]cbgcZV]V`]WhYc`c[mZcf'a cXYfb'7\f]gl]Ub``]ZYUbXdfUM]W'

338 C\f]g||Ub DcWf|bY(3) F, S

DfY! cf 7cfYei |g|hY.7< F & %

A Ucf'h Yc`c[]W`XcWf]bYg`cZ7\f]ghJU]hm'h YH]b]hmifYj YU]cbz; cXzWMLicbzglbz 7\f]ghc`c[nzih Y5 hcbYa Ybhzh Y< c`mcd]f]hzh YWi fWz7\f]ghJU`]ZhzUbXYgWUc`c[nxik]h gdYyU`UhnbhjcbhcV]V]Wz`\]ghcf]W`zd\]`cgcd\]WzUbXW`hi fU`]bÛi YbWgi dcb'h Yc`c[]W`XYj Ycda YbhUbX'a Yh cXgi gyX]b Xc]b[Wbglfi Whj Yh Yc`c[n"

382 T\YDcWf]bYcZGcX(3) FÍ OXXMVfg

DfYfYei |g|hY.7< F"',

5b']b!XYdl\' gli XmcZ; cX`\[g\H]b]\[\text{m\zeta}\[Ug\text{t}\] XmcZ\\ Y\Ulf]\[V\text{l}\[M\zeta]\[V\text{t}\] \\ gli X\text{h\zeta}\[K\zeta]\[V'\text{t}\] \\ \\ gli X\text{bl\k}\[K\zeta]\[V'\text{t}\] \\ \\ \\ gli X\text{bl\k}\[K\zeta]\[V'\zeta

+*

GRK 311. IbhYfa YXJUYGfYY_ I (3) F UbX312 IbhYfa YXJUYGfYY_ II (3) S

DfYfYei lglhY; F? 8%8.

5 lk c!gYa YgM gli XncZhY[fUa a UfUbXgnbHJ cZhY; fYY_BYk HYgHa Ybh'FYUX]b['b h\YBYk HygHa Ybh'

GRK 411. AXj UbWXGfYY_ I (3) F UbX 412 AXj UbWXGfYY_ II (3) S

DfYfYei lglhY.; F? " %&"

91 hMogji YfYUX]b['Wo'i fgYg']b'h\Y'; fYY_'BYk 'HMgHaYbhk]h\'Yad\Ugjg'i dcb'WWYZI'``z UWWfUhY'N Y|Ygg''

HBR 311, E'Ya YbłlfmHYVfYk I (3) F UbX312 E'Ya YbłlfmHYVfYk II (3) S

H\YWi fgYgYei YbW`]gXYg[[bYX`loc]]blfcXi W`gli XYblg`loc'h\Yj YfV`Zcfa gzj cWM``U'nzi UbXgnblU`cZV]V`]W`< YvfYk"

HBR 411. AXI USWXHYVfYk I (3) F USX 412 AXI USWXHYVfYk II (3) S

91 hhbgj YfYUX]b[Wri fgYg]b h\Y< WfYk 6]VYžYa d\Ugh]b[hfUbgUhcbžj YfVdUfgb[ž UWNbhžW]hWr bchYgUbXYl Yl Yglg'

D\]`cgcd\m'flD<@L

240 IblfcXi Wijcb lc P\]`cgcd\m(3) F, S

5 b`]blfcXi WicfmWri fgY]b`d\]`cgcd\mXYg[bYX hc UWri U]bhlh\Yghi XYbhk]h\ h\Ya U'cf` ÚYXgcZd\]`cgcd\]Wr`ghi Xm

243 AddfcUWYghc McfU DYMglcb MU_]b[(3) F

FYM/dfcW/W/XIh.7<F.8(' "

5b]blfcXi Wijcb hc 7\f]gljUb Yh]WgzZcWglb[cb a Yh\cXc`c[mk]h\ Ugi fj YmUbXWa! dUf]gcb cZd\]`cgcd\]WzgYW`UzUbXh\Y]gljWlYfgdYWij Ygcbh\Ya cfU^]Zzzh\Yba cj Ygcb hc XYj Ycd UWa dfY\Ybgj YYj Ub[Y]Wr UddfcUW"

339 Adc'c YHW (3) FÍ OXXMUfg

DfYfYei |g|hY. D< @& S"FYMdfcWt WYX|h 7< F" '- "GYY7< F" '- Zcf XYgWildhcb"

345 Cf]l]W/T\]b_]b[(3) SÍ OXXMUfg

91 Lia]bLl-jcbcZa YthcXgcZMJHWTh]b_]b[k] lh Ll+hbl-jcb[] ji Yb1cth YGcWLHWi YthcXz [bXi Whj YLbXXYXi Whj YfYLgcb]b[zLbXth Y]XYbHÚWL+jcbcZc[]WCZU`LWYg''

346 H]glcfmcZP\]`cgcd\mI (3) FÍ OXXMUfg

5 gł fj YmcZh Y\]glcfmcZd\]`cgcd\mZca h\ Yt]a YcZH\UYglc h\ YFYbUggUbWUbXFYZcfa Ut]cbžYl Ua]b]b['h\ Yd\]`cgcd\]W` VUW[fci bX`]b`k\]W`7\f]gt]Ub]ImYa Yf[YX''

347. H|ghcfmcZP\|`cgcd\mII (3) SÍ Ei Yb MVfg

5 gl fj Ym**Z**fca 1\(\) YF YZfa U]cb \(\) t\(\) Ya cXYfb dYf]cX"DUfl]W\(\) UH\(\) bh|cb \(\) \(\) YY[]j Yb\(\) \(\) t\(\) YX[Uc[i YVYlk Y\) bd\[cgcd\m\Ux\\\ Y7\f]gl[U\Z]\(\) [b K Yg\(\) b\(\) i\(\) i

349 KcfXRY][]cbg(3)SÍ OXXMVfg

DfYfYei |g|hY g|l \ci fg|b7\f]g|lUbGiX|Yg"FYYNdfcWlWYX|h7<F" (-"5 gi fj YmcZhYk cfXYgaUcffY][|cbg"

366 DY; Ycd]b[UC\f]g]Ub K cf X;]Yk (3) SÍ OXXMUfg

DfYfYei]g|hY. D< @&(\$"FYMdfcW/ WYX]h-7< F" **"GYY7< F" ** Zcf XYgWidhcb"

448 P\]'cgcd\mcZF]'a (3)

5bYl Ua lbUlcbcZd

452 P\]`cgcd\mcZRY][]cb(3) FÍ Ej Yb MVLfg

DfYfYei]g|hY. D< @&(\$"FYY|dfcW/ VfYX]h]b 7< F() &"

5 gli XmcZh Yd\]`cgcd\]W Uhha dhhc i bXYfglbXh\YbUli fYcZ; cXUbXh\Yg[] b]ÚWbW cZfY][]cb]bh\Y`]ZYcZa Ub"5b]bj Ygh[UhcbUghch\Yj U]X]hmcZh\YWJa hc UhndYcZ _bck `YX[YW`YXÎ fY][]ci gi 'UbXh\Ya Yh\cXgk\YYVmgl W`]g[UbYX"

5j U'WY]b YWW XYdUfha YbłU dfYÚl.

180280380480 Shi XmAVfcUXPfc[fUa g(1-4) AgNYXXX

5 ``Wi fgYgUbXh\YfUdd`]Wh]cbga i ghVYXYÚbYXUbXUddfcj YX'df]cf hc lfU Y''

19567. SdYWU Shi X|Yg(1-4) Ob DYa UbX

@ck Yf! Yj Y [fci d'ghi X]Ygk \]W Xc bchUddYUf]b h\ YfY[i `Uf XYdUfha YbHU c**ZX**f]b[g'

2 3956 SdYMU Shi XJYg(1-4) Ob DYa UbX

I ddYf! Yj Y [fci d gli X]Ygk \]W Xc bchUddYUf]b l\YfY[i Uf XYdUfha YbHJ cZZYf]b[g"

397. SdYMU Shi X|Yg|b C\i fW H|glcfm(1-4) Ob DYa UbX

I ddYf! Yj Y [fci d'ghi X]Ygk \]W Xc bchUddYUf]b h\ YfY[i `U' XYdUha YbHJ `cZYf]b[g"

49567. IbXYdYbXYbhShi Xm(1-4) Ob DYa UbX

=bX|j |Xi U fYgYUfW i bXYf h\Y[i |XUbWcZUZUW hma Ya VYffpt"

498 SYblcf SYa lbUf (2) F. S

FYei]fYX`cZ8YdU'ha Ybha U'cfg"A i ghVYHU_Yb'Xi f]b[gYb]cf'nYU''

499 SYa]bUf(1-3)ObDYaUbX

+, H: 'VY i gYX' Uilh YX gWM]cb cZh\YXYdUfha YbhZcf a Ucfg cb `n"iGYb]cf 'gLbX]b[`]b 'h\Y XYdUfha YbhfYei]fYX"

499 T\Yc`c[mSYa]bUf(3)S

DfYfYei |g|hY. 7< F'',

H\YWdglebYWri fgYhc'h\Yh\Ye`c[ma U'cf']b'k\]W'h\Ygli XYbhk]``Yl d`cfY'UWbhYa! dcfUmiÚ[i fYff£cf WbhYa dcfUmh\Ye`c[]W'a cj Ya Ybhff£"

5Xi`h'GhiX]Yg

Dfc[fUag'cZ'h\Y'F"'; "'@YY'7YbhYfg

Dfc[fUa'@YUXYfg\]d

C\U^YgA.Fck`Yff%-) E'Dfc[fUa 8]fYWicfzGYb]cfJ]WDfYg|XYbhZcfI b]j YfglmFYU l]cbgzUbX5ggcVJUhYDfcZ/ggcfcZ7\f]g|JUbA]b]gff]YgUbX9Xi Wh]cb"6"A "ZI b]cbI b]j Yf!g]lm/A "7"A "ZB Yk Cf`YUbgH\Yc`c[]WrGYa]bUfm/D\"8"ZA]ggggdd]CHWYI b]j Yfg]lm'I

'7cbhWhi' CZÚWcZ7\ifW'CYfj]Wyg

9a U). j Vi fbYh4i i "YXi D\cbY. +' %**%) %\$: 5L. +' %**%) (-)

Dfc[fUa'GdYW]ÚW'Dc']W]Yg

8i f]b[h\YÚfginYUfh\YX]d`ca Udfc[fUa]gcZZYfYXUhU7YbhYzUgi XYbha UnffUbgZf Ua U]a i a cZ% gYa YghYf\ci fgcZUddfcj YXWYX]h]bhc h\YX]d`ca Udfc[fUa "I d hc %&cZh\YgY%\ci fga UniVYYUfbYXh\fci [\h\YCYa]bUfn9l h\bgcbfQ9E8YdUfha Ybh f\cfbdU

+-

,%

304 C\f|gh|Ub DcWf|bY(3)

A Ucf'h Yc`c[]W'XcWf]bYg'cZ7\f]gh]Ub]lmi'h YH]b]lmäfYj YUl]cbž; cXžWMLl]cbžg|bž h YZU``cZa Ubž7\f]ghc`c[näh\Y5hcbYa Ybhžh\Y< c`mCd]f]hžh\YWi fWžh\Y7\f]gh]Ub` `[ZhžUbXYgWUc`c[nh

305 PUdcfU M]b]df]Yg(3)

5 Whi fgYXYg][bYXhcXYUk]h\h\YdfUMJWhkcf_cZh\YdUghcf"

306 IblfcXi Wich to C\flgt\Ub Ei Ub Y ga (3)

$$\label{eq:continuous} \begin{split} &H(Y) \in W^* \cup X^* \times W = U^* \cup U^* \times U^*$$

307. C\i fW M]b]gfmk]h\ PfYgWcc` UbXC\]`XfYb (3)

7i ff Wia ZcWgb cb gg Ygf YUlb hc W Xf Yb UbXh Yf dU Yblg

308 C\i fWM]b]gfmk]h Mti h (3)

Mti h a]b]gffmk]h]b h YWi fW ZcWgb[cb cf[Ub]nUlcbgzdfUMjW UgdYMgcZa]b]gfmz a YYl]b[h YbYYXgcZnci h zUbXh Yi b]ei Yfc YcZh Ya]b]gMf k]h nci h "

309 C\i fWM|b|gfmk|h\ AXi `lg(3)

H\YWifWNgWff]Wia UbXfYgdcbgV]`]lmlrca]b]gMfk]h\Za]`]YgUbXaUff]U Yg'

310 Mti h M]b]gfmlggi Yg(3)

=ggi Ygʻ ZUMb['mci h\ 'Ugʻh\ YmXYU'k]h\ 'XYj Ycda YbhU''UbX'h\cgY` UZXVMjb['mci h\ 'UbX' h\ Yfʻ ZLa] `]Yg''

311. Si fi YmcZMlgglcbg(3)

5 'gi fj YmcZa]gg|cbg'UbX'ci lfYUW'k]h\ 'U'dUfl}W'U''ZcWg'cb'Gci h\Yfb'6Udlfgha]g g|cbg"

415 PcYlfm& K jgXca L]hYfUi fYcZh YO`XTYgUa Ybh(3)

5 b`]bhhbgjj Y`gli XmcZ< YVfYk `dcYlfmUbX`k]gXca ``]hhfUli fY`'flcVzDgUa gzDfcj YfVgz 9WWgUgNgL"

416 MUcf Pfcd\ Yrg(3)

H\Ycf][]b`UbXXYj`Ycda YbhicZ< YVfYk`dfcd\YWMYUb`Yl Y[Yl]WV`gli XmicZgca YcZl\Y`a Ucf dfcd\YhWcc_gcZl\YC`XHYglu Ybh'

423 T\YJc\UbblbYLllMfUi fY(3)

5 b]bhhbgji Yghi XmcZh\Y; cgdY cZx\b UbXh\Yx\Ubb]bY9d]ghYg'

454 Sci h Yfb BUdhghL ZY (3)

5 g fj YmcZh\Y\]ghcfnžigfi Wii fYUbXUMij]hYgcZh\YGci h\Yfb 6Udh]gh7cbj Ybh]cb"

481. C\f|g||Ub M||b||g|f||YgIb||Yfbg\|d (3)

5dd`]YXWifWa]b]gfmi'CliXYblgk]```gdYbX' kY_g]b'hYWLggfccaZc``ckYXVmU

'', "DgUa gfl L
''-"Dfcj YfVgfl L
'(S"9WWglLgNgfl L
'(%"Ccb[cZCcb[gfl L
'(&"=gUU fl L
'('""MYa]U fl L
'((""@La YbHLflcbgfl L
'() "9nY_]Y fl L
'(*"8 Lb]Y fl L
'(+"< cgYUfl L

8YdUfhaYbh'cZ'7caaib]WUh]cb'5fhg 7c``Y[Y'cZ'5fhg'UbX'GW]YbWYg

:UWi`hm

CAAIB=75H=CB:5FHG

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I. MUcf |b T\YUfYUbXSdYWÍ 39cf 42\ci fg
            5" 7CA % $\tilde{z}\tilde{x}\tilde{x}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{x}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\tilde{z}\t
            6" CdYYW 9a d\Udgi & \ci fg
                    %'' 7CA '' %'z' &$z' &) z(' $
                     &" 7CA '9`YMij YgÌ %&:\cifg
            7" H\YUfY9a d\Udd &+ \ci fg
                    %'' 7CA '%% ž&( $ž' ' $ž' (%ž' (&ž' ) $ž( %&
                     &" 7CA "() cf" %%
                    ' " 7CA '9`YMdj YÌ' \ci fg
            8" HMWYf@|WhogifY9ad\Uglgf &(\cifg
                    %'' 7CA '%% ž&($ž' %%ž' &$ž' '$ž' (%ž' (&ž(%&
                     &" DfcZ/gg|cbU 9Xi Whlcb. 98 I % $\tilde{x} \tilde{x} \tilde{z} \( \& \tilde{z} \) /DQM&% \tilde{z} \% /Q9 \.
                    ' " 7ca d'Yhcb cZUdd`|WWYdcfhcbgcZh\YDfU |gCyf|Yg="
                     (": cf'UXX]hcbU']bZcfa U-jcbžgYYh\Y8]fYMcf'cZHMUWYf'9Xi Wh-jcb"
    II. MUcf |b Jci fbU|ga Í 44\ci fg
            5" 7CA %$$`Z%$\\Z\Z\$\$\Z'\&\Z'\))\Z(\%\Z(\%\Z('\$
            6" 7CA 8% Si &gYa Yghtfgž%\ci f YUW
            7" CbYcZ.7CA " *$/5FH8&62& %
            8" 7CA '9`YMij Ygl- \ci fg
  III. MUcf |b BfcUXW2hb | 1 44\ci fg
            5" 7CA %&$z%&%z&$$z&%%z&&$z&\ $z' &$z' &$z' &%z' (+z'))z($*z(% z(' $
            6" 7CA '9`YMij YgÌ) '\ci fg
  IJ. MUcf |b Pi V | WRY Ulcbg/AXi Yfllg|b| Í 44\ci fg
            5" 7CA '%&$z'\&\zz'\&\zz'\&\z'\&\z'\) z'*$z(\%\z(\%\z(\$z'\$)
            6" 7CA '&\si\ &gYa YghYfgz\%\ci f YUW
            7" 7CA '9`YMdj Ygí' \cifg
    J. DII IHU MYXJUShi XJYgMU'cf
            5" 7cfYfYei ]fYa YblgZcfU`Ya d\UgYgÌ' - \ci fg
                    %' 5FH%&$ž&&%z& %z' ()
                     &" 7CA '&&$ž' &$ž' *) ž(%
                    ' "' 7G7 '% \( \bar{z}' \& \( \bar{z}' \* \) \( \bar{z}' \* \)
                     (" 8][ ]hu 'A YX]UCh X[Yg'CYa ]buf'(-$
            6" 7ca a i b]Whlcb 5fhg9a d\UglgfYei ]fYa Ybhg1 & \ci fg
                    %'' 7CA '%&'z' & z' & z' \ X Z ( ' S/A ? H' &
                     &" GYYMdh fYYWd fgYg '7CA '& $\vec{z}')) \vec{z}(\%\vec{z}(\vec{z}(,,/A?H(&(
            7" 5fh9a d\Uglgfk \ci fgLUX7ca di hhf CMNbW9a d\Uglgfk \ci fgL
                    GYYfYgdYMij YXYdUfha YbhiZcf XYhUj`g'
  JI. BfcUXWallb[M]bcfl 21\cifg
            5" 7CA %88ž%%%28&8ž& $
            6" GYYMI- \ci fg 7CA '8$z' & z' (+z($' z(%$z(% z(' $
JII. PiV]WRYUJcbg/AXjYflJgb[M]bcfÍ21\cifg
            5" 7CA %8$ž%%ž' & ž(% ž(&
            6" GYYMi*\cifg:7CA :&\&z' &\&z' &\&z' &\&z' \$\\z' \$\Z(\%)\z'(\$\/5FH:&\&\\\z&\%)
JIII. Jci fbU]ga M]bcfÍ 21\ci fg
            5" 7CA %&$ž%&%z&%ž' &%z(%)
            6" GYYM: \ci fg 7CA ' &\z ' \z' \z' \z' \z (% /5FH \&\z \z \%)
  IL. T\YUfYSdYYWM]bcfl 21\cifg
```

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%' FYei ]fYX '7CA "', ž7< F" (, Í * \ci fg
&" GYYMI'. '5FH(& /7CA " $%z(', /9B; " %%'D< @((,
7"' HUW'Hk cÍ % \ci fg
%' GYYMI%'5FH(& /7CA " $%z(', /9B; " %%'D< @((,
&" 5Xa ]gg]cb hc @cg5b[YYg:]`a Ghi X]Yg7YbhYf.
```

121. Kf|Hb| Zcf h\YMUggMYX|U(3) F, S

8 Yg[bYX1c []j Y1\ YVY[]bb]b[a YX]Ugi XYbhUVLjggZcfi bXYfgtbX]b[1\ YX]ZZfYbWg UbX ga]`Uf]l}YgcZh\ Yj Uf]ci g IndlYgcZk f]l]b[]b 1\ YÚYX"H\ Ygi XYbhk]````YUfb 1\ Y VLjJWcZdf]bhžVfcUXWghžUXj Yf1\g|b[žUbX'di V]WYYU1\cbgk f]l]b["

200 Cca a i b]Wdcb UbXC\f]gdUb]lm(3)

5 Wi fgy'h: Zcghf i bXYfglbX|b[cZX]ZYfYbhk cf'Xj]Yk g'bX'h: XYj Ycd Uk cf_]b[d\]cgcd\mh\Ui]bh[fUhgZ]h\ bXdfcZygdcb"H\YWi fgY]gXYg[bYXhc\Yd XYj Ycd Wb\UXYbW'bX'gfUh[]Yghc\YWwa YWb[YU Ybhg]b a YX|UbX'h\YUfg"

205 SdcfhJcifbUlga (3)

FYM/dfcW/WYX|hD9KG88)"

GYYD9K G'88) 72cf Woi fgYXYgWi]dh]cb"

210 Pi V]WI]cbgSYa]bUf (1) F, S

DfYfYeilglhY.7CA %8%

5 dd`]Which cZ^ci fbU]ga Zi bXUa YbHJg1c 1h.Y *Cardinal & Creani*''=bWi XYg k f]hjb[zi YX[hjb[zi`Unci hzUxi Yfhg]b[za UbU]Ya YbhUbX'dfcXi Which''A UmVYHJ_Yb'' hja Yg''

211. Jc]WUbXD]Wicb (3) F

Gi XmUbXXYj Ycda YbhcZh\Yj c]Wk]h\Yl YfYlgYg]b Ufl;W\'Ujcb UbX'dfcbi bYJUjcb'' GYY_gla Yj Ui UYj cW\k YU_bYggYgUbX'dfcj]XYgli XYblgk]h\h\Ylac`gla ja dfcj Yh\Yff j c]Wg''5 gdYyJU'i b]hYa d\UgjnYg]a dfcj]b[fY] |cbU]ga gUbXgci h\Yfb X|UYYJI

220 IblfcXi Wicb hc PfcXi Wicb (3) F, S

H\YZci bXUljcb Zcf j |XYc UbXU X|c dfcXi Wijcb Ya d\Ug|n|b[Uyg\h\Yl]WycZXYg[b k]lh`\UbXgcb YI dYf]YbWYk]lh Wa YfUgz`][\liph[zu X]c UbXVUg|WX]lpb[H\Wb]ei Yg'

* 230 TYYi lelcb PfcXi Wicb (3) F

DfYfYei]g|hY. 7CA '888"

Cj Yfj |Yk cZh\YYYa YblgcZdfcXi Wijcb. Wa YfUgzgci bXz`][\h]b[zUbXj]XYcHUdYfY! WrfX|b[iglb[Ugk]HWYf"Chi XYblgk cf_k]h\h\ygY]bdfcXi VJb[HYj]glcbdfc[fUag"

235 Ibh/fdYfgcbU Cca a i b]Whlcb (3) F, K, S, Si

=XYbh]ZnWaai b]Wh]cbdfcVYag]b]bhfdYfgcbUfYUhcbg\]dg]bWiX]b[Yh]WiWa! ai b]Wh]cbzgYZX]gWcgifYzdYfWdh]cbz]bhhfj]Yk]b[zWbÛ]MaUbUYaYbhzjYfVUUbX bcbjYfVUWaaib]Wh]cb"H\YghiXYbhk]``Yl\]V]hWadYhbh`Ub[iUfYg_]``gh\fci[\ cfUfYdcfhgzkcf_]b[]bXnUXgUbX`gaU``[fcidgzUbXWUgg]ai`Uh]cbg"

240 AWNb T\YcfmLbXTYWb ei Y(3) S

DfYfYei lglhY.7CA %%"

JUT]ci gUMAJb['IN Ycf]YgUbX'dfUMAJWgk]IN Ya d\UglgcbYI YfVJgYg']b'd\mgWV IfUJb]b[zjcWV fYdfcXi WajcbzWUUMAMfdfcYvMajcbzUbX'IN Y'UYgN YIJWgcZUMAJb["

299 PfUMWa (1) F, K, S, Si

DfUMJW'\UbXglcb'Yl dYf]YbW']b''ci fbU]ga ždi V']WfY'Ujcbgž'UXj Yfhjglb[žgdYYWžcf'h YUfY''Ch XYblgk cf_k]h UZW'hma Ya Wf'cb'gdYyJÚWlfc'YMgh'Uhk]'`Yb\UbWh\Yjf'_bck 'YX] YUbXYl dYfhgY']b'h Yjf WbWbHUjcb''A UmVYhU_Yb'h fYYha Yg''

301. Sna Vc`]ga]b T\YUfYUbXF]`a (3) F

H\]gWi fgYYld`cfYgH\Yg!VhYi gYgcZgnaVc`]ga `]b`dfYgYbH]b['g!VhYl hi U 'a YggU[Yg'' Chi XYbHg`j]Yk `UbXUbUnnYUj Uf]YhncZU`a gUbXHUYXH\YUfYdfcXi Wh]cbg''

305 DfUa U(3) Ej YfmT\]fXMUf

DfYfYei]g|hY. '9B; ''&\$%/ '&\$&"FYYJdfcWV 'WfX]h '9B; '' \$) "'GYY'9B; '' \$) 'Zcf'XYgWfJd! h|cb"

412 FibXLaYbHJgcZD]fYMJb[(3) FÍ EjYbMYLfg DfYfYei]g|HY.7CA'&(\$"

B:=B99F=B:

8YdUfhaYbh'cZ'9b[]bYYf]b[7c``Y[Y'cZ'5fhg'UbX'GW]YbWYg

:UWi`hm

 $\label{lem:bcb_JUb_flass} $$D_{5}g_{0}^{-1}D$

JMbbYHY H. Rigg fR888&L" 5 gglgHbhDfcZ/ggcf cZ9b[]bYYf]b[" 6 GZA]gglggldd] GHYY

270 E'YMf|W/Pck Yf SnghYa g(3) S

DfYfYei |g|hY.'9; F'&*&

7cj Yfg VlglWdf]bVld Yg cZdck Yf gngha g k]h. Ub Ya d\lglg cb h\fYY!d\lgY dck Yf UbUnglgž[YbYfU]cbžUbX'hfUbga]gglcb/]blfcXi Wggngha ! Yj Y hcd]Wgg W lggngha gUV]hrigngha Wblfc žUbX'YWbca [WcdYfU]cb"

275 Eb[]bYYf]b[SKLI]Vg(3) F

DfYfYei]g|hY. A 5H'8%8žD< M& %'

; YbYfU df]bVyd`YgcZYb[]bYYf]b[a YWUb]Vyz]bWi X]b[UbUng]gcZZcfWj YWbfgzYei]! `]Vf]i a cZf][]X`VcX]YgzUbX`Ub`Yl Ua]bUl]cb`cZlfi ggYgzWblfc]Xgzk cf_zUbX`a ca Yblg`cZ]bYflU'

290 Eb[]bYYf]b[DnbUa]Vy(3)S

DfYfYei]g|hY.'9; F '&+) "

?]bYa U-JWgUbX?]bYH-WgcZdUfH-Wygk]h\ fYgdYWhlrc ZcfWzUWYYfU-Jcbzk cf_zYbYf[nzi |]a di `gYza ca Ybhi a `UbXUgc Wrj Yfgd`UbUr_]bYa U-JWgUbX_]bYH-Wg'

320 MYWUb]WycZMUHYf]Ug(3) F

Yf d dA d 3 3 d d < b XfR+b Ufi Yal e d "Ub`Vdg c A W f

370 EYWMF WW MUW bYg (4) F

DfYfYei lglhY. 9; F & & &

7cj Yfgdf]bWd YgcZ87 UbX57 fcllUlb[a UW]bYgž]bWl X]b[lh YcdYfUlcb cZlfUbgl Zcfa Yfgž]bXl Wlcb a chcfgžUbXgnbWfcbci ga UW]bYg"=bWl XYgk YY_m'UV"

385 EbYf[mCcbj Yfglcb (3) S

DfYfYei |g|hY. 9; F & S"

Dfcj]XYgUWa dfY\Ybgj YUbUnglgcZWffYbhYbYf[migngHa gz]bWiX]b[zcgg]`dck Yfd'Ublgzbi WYUfd'UblgzUbXch\Yfzcfa gczfYbYk UVYYbYf[migci fWg/Wj Yfgh\YFUb_]bYWYWzgHUa [YbYfUcfgzWa Vi gl]cbzUbXhi fV]bYg/dfYgYblg]bzcfa Ul]cb'cb'h\YYbj]fcb!

• a YblU]a dUMicZYbYf[mi] YbYfUl]cb"

405 EYVMfcb]WC]fWV]hAbUngggubXDYg[b (4) S

DfYfYei |g|hY.'9; F &+\$'UbX'' (\$"

=blfcXi WgZl bXLa YbHJ`df]bVJd`Yg`cZYYMfcb]WgZ]bWi X]b[`UbUnglg`UbX`XYg[[b`l\tW! b]ei YgZcf`WfW]lgWbHJb]b[`X]cXYgg`UYX`YZZYMlfUbglg\cfg`UbX`V]dc`Uf`1 bWi]cb`lfUb! glg\cfg''=bWi XYgk YY_`m`UV'

420 P\ng|W/Pf|bWd\YgcZSc`]XSkUYDYj]Wg(3) S

DfYfYei |g|hY.'9; F'&%\$ž9; F'(\$)"

=blfcXi WigWbWidlig]ba UMf]UgWMbWUbXei Ubli a d\ng|Vgi]bWi X]b[a cXYfbh\Ycfmi cZgc`]Xgia U bYl]WUbXcdl]Wi dfcdYfl]YgcZa UMf]UgigYa]!WbXi WicfgUbXgYa]!Wb! Xi WicfXYi |WgiX]YYMf]Wa UMf]UgigUbXgi dYfWbXi Wij |lmi

450 T\Yfac-Ûi |XDnbUa |Vg/II (4) F

DfYfYei |g|hY.'9; F'&| \$"

DfcdYfl}YgcZh\Y]XYU`[Ugʻa cXY`gcZ]bWa dfYggVYUbX`WffYglcbX]b[`gUlYgž[Ugʻ j Ulcf`a]l li fYgžU U`U\]hmiUbX]ffYj YfgV]`]hmždck Yf UbXfYZf][YfUlcb WnWgžj]gWi gʻ UbX`Vci bXUmt`UnYf Ûck ž]bj]gWX]bWa dfYggVYÛck žWa dfYggVYÛck žUbX`li fVc! a UW]bYfm"=bW XYgk YY_`m`UV"

456 MWJbY&MYWbJga T\Ycfm&DYg[b(3)F

DfYfYei |g|hY.'9; F & \$"

7cj Yfg'XYg[| bžgY'YMjcbžUbX'Yj Ui Uljcb'cZa YWUb]ga g'Zcf'j Uf]ci g'Udd`]WUljcbgž]b! Wi X]b['d'UbUf'UbX'gdUljU'`]b_U YgïWa gï[YUfgïd'UbYHImiUbX'bcb!d'UbYHImi[YUf' gngHa gï`]b_U YgnbN YglgïUbX`]b_U YXnbUa]Ng'

470 HYUhTfUbgZyf (3) S

DfYfYei]g]hY. 9; F () \$"

H\YUbUnggcZj U]ci g\YuhlfUbgYfa cXYgz]bWi X]b[WbXi WhcbzbUhi fU UbXZcfWX: Wbj YWhcbzUbX`fUX]Uhcb/]bHcXi Wg]bXi gf]U`Udd`]WhcbgcZ\YuhlfUbgYf`g W`Ug`\Yuh'N WUb[Yfgzk UghY\YuhfYWj YfnziUbX`ghYUa`[YbYfUcfg]b`Ubi WYU`d`Ubhcf`]b`U [Ughi fV|bYYYWf]Wr`[YbYfUcf'

491. MUcf Pfc YVMD Yell b I (3) F

DfYfYei lglhY. DYfa lgglcb cZlbglfi Wicf"

5``ck gUgi XYbhitck cf_]bXlj]Xi U`mcb UfYU!k cf`XYb[]bYYf]b[dfcVYa Ugg[[bYXVm Y]h\Yfh\Y]bgfi Wicf`cf Ugdcbgcf]b[]bXi gfmrfYei]fYgh\Ygi XYbhltcgc`j Yh\YdfcVYa `VmUdd`m]b['h\YYb[]bYYf]b['XYg[[b`UbX`UbUng]g`a Yh\cX/]bj c`j Yg`cfU`UbX`k f]lh\b' dfYgYbHJ;cb`]g]b'h\YZcfa `cZUXYg[[b`dcfhzc`]c`h\Uh XcWa YbhgUZ ```Yb[]bYYf]b['ghi XmcZh\Ydfc'YWl

492. MUcf Pfc^YVMDY@[bII(3)S

DfYfYei |ghY DYfa |gg|cb cZ|bg|fi Wicf"

5 ``ck g`UhMa `cZghi Xyblghc`k cf_ 'cb`UfYU!k cf`X'Yb[]bYYf]b[`dfcVYa `Uggl[bYX'Vm Y]h Yf h Y]bgfti Wicf`cf`Ugdcbgcf]b[]bXi gfmfYei]fYgh Yghi Xybhhc gc`j Yh YdfcVYa

Vmihlu Yzzcfhij | Udfc^vlika UbU Ya Ybh'| bj c'j YgcfU k f| lhhb dfYgybhli| cbgzk \YfYh Y k f| lhhb dfYgybhli| cbgzk \YfYh Y k f| lhhb dfYgybhli| cbgzk \YfYh Yzcfa fYei | fYx Zcf 9; F'(-%"H\YcfU dfYgybhli| cbk | ``VY Udi V | Wmilbbci bWxYj Ybh'

498 Eb[]bYYf]b[SYa]bUf(1)F

DfYfYei |ghY. gYb|cf gHbX|b["

Dfcj |XYgUWa dfY\Ybgj YfYj |Yk cZU``Yb[|bYYf]b['Z bXLa YbHJgz]bWi X]b['a Uh\Y a Uh\Wgd\ng|\ygcVYa |gfnidbXY\Wbca |\ygcdfYdUYYb[|bYYf]b['gyb]cfgZcfh\YbUhcbU' i bXLa YbHJgcZ9b[|bYYf]b['fl 9LYl La |bUhcb/Ugc dfcj |XYgUfYj |Yk cZYb[|bYYf]b['Yh]\ygCbX'7\f]gd]Ub WbXi \wd]bh\Yk cf_d`Uw'

499 SYa JbUf (1-3) Ob DYa UbX

H: VYi gYX'Uhl\YX|gWMlcbcZh\YXYdUfla Ybh'

180280380480 Shi XmAVfcUX(1-4) AgNYXXX

5 "Wi fgYgUbXh Ylf Udd | Whcb a i ghVYXYÚbYXUbXUddfcj YXdf | cf hc lfU Y"

19567. SdYWU Shi X|Yg(1-4) Ob DYa UbX

@ck Yf! Yj Y [fci d ghi Xjygk \]W Xc bchUdYU]b h YfYj i 'U XYdUha YbhcZZYf]b[g'

39567. SdYWU Shi XlYg(1-4) Ob DYa UbX

I ddYf! Y Y [fci d ghi X]Ygk \]W Xc bchUdYU]b h YfY i 'U XYdUha YbhcZZYf]b[g"

49567. IbXYdYbXYbhShi Xm(1-4) Ob DYa UbX

=bX|j |Xi U fYgYUW i bXYf h\Y[i |XUbWcZUZUW hma Ya VYfÑg"

8YdUfhaYbh'cZ'9b[`]g\ 7c``Y[Y'cZ'5fhg'UbX'GW]YbWYg

:UWi`hm

GYbY FUbhf&\$\$&L"5 ggcVJUY DfcZ/ggcf`cZ9b[`]g\`UbX`8 YdUfn Ybh7\Uf"6"G\Z\A Yg A UX|gcb`I b|j Yfglmr'A "5 "ZC`X`8 ca |b|cb`I b|j Yfglmr'A "8 |j "ZBYk `Cf`YUbg`6Udl\gh H\Yc`c[]W\'GYa |bUfmr'A "9X\ZUbX'D\"8 "ZI b|j YfglmrcZCci l\Yfb`A |gglggldd]"

PUH]VNUL. HUA] 'heb fR\$\$%L"5 gg]gH.bhDfcZYggcf cZ9b[`]g\ "6"5 "z̃6]c`UI b]j Yfg]miA "5 "z̃7U]Zcfb]UCH.hYI b]j Yfg]mz̃: i ``Yfhcb/D\ "8 "z̃I b]j Yfg]micZ; Ycf[]U'

DU JXMUcbYfl%--E"5ggcVJUhYDfcZ/ggcfcZ9b[`]g\"6"5"ZK\YUcb7c``Y[Y/A"5"ZGUhY I b]j YfglmcZB Yk Mcf_Uh6|b[\Ua hcb/D\"8"ZB cfh\Yfb=`]bc]gI b]j Yfglm'i

BUVUFUC\]`XYfgMWN]``]bf%-&"DfcZ/ggcfcZ9b[`]g\UbX8YUbcZhY7c``Y[YcZ5flg`UbXGN]YbWg"5"5"Elcfl\YUghA]ggggdd]7caaib]lm7c``Y[Y/6"5"Elb]cblbjYfglm'A"5"UbX8"5"ElbjYfglmcZA]ggggdd]"5XX]llcbU`ghXmz<UjUfXlbjYfglm'

HUX YmMcnYf fRs\$' Ł"5 gg]gł.LbhDfcZ/ggcf cZ9b[`]g\ "6"5 "ž< ci glob '6Udl}ghī b]j Yfg]mn' A "5 "žUbXD\ "8 "ž6Umcf I b]j Yfg]m'i

GUj]b R]WUXgcb fl%-, E"5 ggcVJUYDfcZ/ggcf cZ9b[`]g\"6"5 "ZJ UbXYfV]`hil b]j Yfglmr A "5"UbXD\"8"ZI b]j YfglmrcZ=`]bc]gUrI fVUbÙ 7\Ua dU[b"

BcWmRc[Yfgff%, - Ł"DfcZYggcf cZ9b[`]g\ "6"5 "žI b]j YfglmicZHbbYggYYUi? bcl j]``Y/A ": "5 "žI b]j YfglmicZJ]f[]b]U"

Re[YfS. SHbYmf%-SE"5 gglgHbhDfcZ/ggcfcZ9b[`]g\"6"5 "\"5 ddUUW]Ub`GHYT b]!

* j Yfglm/A "5 "\"59UghHbbYggYYGHYT b]j Yfglm/5 XX|ldcbU gli XmïI b]j YfglmcZA]gglg
gldd]"

PUa Si Hncbfl%-, Ł"DfcZ/ggcf cZ9b[`]g\"6"5 "ZCci l\ Yfb5f_UbglgI b]j YfglmrA "5 "UbX' 9X'GZ5f_UbglgGUhYI b]j Yfglmr9X'8 "ZHM Ug5/ A I b]j Yfglmi7ca a YfVI"

A]gg]cb GhUhY a Ybh

- i Hodfej JXYghi XYbHVYbhYfYX`UhYbhJebik \ JW ZW/JHLHYgYZZVNij YWa a i bJWHJeb''
- ; He`cZZYf`Wn`fgYg`]b`Wa dcglh]cb`k \]W`fYei]fY`UbUmh]Wo`fYUX]b[žh\]b_]b[žUbX` k f]h|b["
- ; He'c ZZMf Wri fgYgfh UhYI d'c fYUb XUbUmnYa i 'h]W/hi fU `]hYfUhi fYhc Vfc UXYb k c f'X' j]Yk g''
- ¡``Hc`c**ZY**f`UfUb[YcZ9b[`]g\`WifgYg`Yad\Ugjn]b[`[YbfYgödYf]cXgöaUcf`kf]lNfgö \]glocfmUbX`glfiWifYcZh\Y`Ub[iU[YöWadcg]h]cböfYgYUFWöUbXWi]ljWiUbUng[g'

7 iff]Wi`ia'

I. MUcf |b Eb[`]g\ K |h Kf|l|b| Ea d\ Ug|g 34\ci fg

5"

&" 9B; '() \$'cf'(*\$Í' \ci fg ' " 9B; '\$\$'UbX'(-\$Í' (\ci fg

6" 5 Xj UbWX @JhYfUh fYCh XJYg * \ci fg

%" 9B; "(\$cf"(& & 9B; "'(cf"')

7"; YbfYghi X|Yg GYYMn%Zfca '\$) ž' %\$ž' &\$ž' \) ž' '+

8" 9 YMN Yg CYYMN % \ci fg Zfca Ubm' \$\$#(\$\$ Yj Y 9B; Woi fgYg"

III. TYWYf L]Wlogi fYZcf Eb[`]g\ (GfUXYg7-12)

5" A Ucf fYei]fYa YbhgUgg\ck b Uvcj YZcf Y]h\Yf WrbWblfUlcb hc]bWi XYVch\" 9B; ()\$UbX(*\$zfYXi V|b[9B; 9`YWij Y\ci fgVm'\ci fg'

6" DfcZ/gglcbU 9Xi Whlcb. 98 I % \$\tilde{z}\ \\$\tilde{z}\ \\ \tilde{z}\ \\tilde{z}\ \\tilde{z}\ \\ \tilde{z}\ \\\ \tilde{z}\ \\\ \tilde{z}\ \\\ \tilde{

7" H\Yghi XYbha i ghYUfb U' "S'a Ucf; D5"

8" 7ca d'Yllcb cZUdd']WWYdcfllcbgcZl\YDfU |g="

9": cf UXX|h|cbU |bZcfa U|cbzgYYh Y8 |fYMcf cZhYUWYf 9Xi Wh|cb"

IJ. Eb[`]g\ M]bcf RYei]fYa Yblg

6i] X]b[cb h Y & ci fgc Z9B; fYei] fYX]b h Y; YbYfU 7 cf Yzh Ya] bcf fYei] fYg % 9B; \ci fg2&-"

5ggYgg a Ybh cz AU cfg

A Ucfg'UYfYei]fYX'lc HU_Y9B; '(-\$'k\]W']g'h\YW'a]bUl]cb'cZh\Ya Ucf']b'h\Y Wa d'Yl]cb'tbXXYZbgYcZUh\Yglg''

Gh i XYbh Cf [Ub]nUh]cb

S][aUTU DYHEUbUjcbU`9b[`]g\`< cbcf`GcVMnzifYW[b]nYggi XYblgk\c`\UJYfYU]nYXUWvad`]g\aYblg]bh\Y9b[`]g\`Ub[i U_YUbX`]hMui fY'H\Yachc]gÎ G]bWf]nzi Hi h\z8Yg[b'! I b]cb I b]j YfglmigWUdhfk Ugcf[Ub]nYX]b%+ "CZVMU`mXYWUfYX'9b[`]g\aUcfg#a]bcfgk\c\UJYWvad`YhXUh`YUgh'*gYaYghf\ci fgcZWv`Y[Yghi Xnzik]h*\ci fg]b`]hMui fYzaYhh\Ya]b]ai aY][[V]`]hmfYei]fYaYbhg': ifh\YfacfYzh\Yghi Xhzik Xbhai gh\UjYUh`YUghU'"S; D5]b'9b[`]g\8YdUhaYbhWifgYgZcf'aYaVYfg\]d"

GhiXYbh'5 kUfX

H\Y**HYYbB`nth\YCfYUljYKf]lfb[AkUX**]g[]jYb'lc'h\Y[fUXiUljb['gYb]cf'k\c']g'XYYaYXVnih\Y9b[`]g\8YdUftaYbhZMV`hnihc'VYh\YVYghMYUljYkf]lMf''

; YbYfU`FY[i`Uh]cbg

Chi XYblgUYfYei]fYXhc Wa d`YhYh YWfYWff]W`i a fYei]fYa Yblg]b Wa dcglh]cb`UbX`]hhfUi fYVYZcfYYbfc``]b[]b Ub i ddYf! Yj Y '9b[`]g\ Wi fgY"

7cifgY'CZZYf]b[g']b'9b[`]g\'fl9B; Ł

flL< ci fg7fYX]h': !: U`/K !K]bhhf/GlGdf]b[/Gi !Gi a a Yf

111. K f]lhhb Cca dcglhcb I (3) F, S, Si

=bWiXYgʻUgʻniXmcZh\Ydf]bWd`YgʻcZ[fUaaUfžigU[YžUbX`f\Yhcf]WiYad\Ugʻn]b[ˈh\Y kf]hb[ˈcZWWufžYZZWhijYY]dcg]hcb"

112 Kf]lhhb Cca dcglhcb II (3) F, K, S

DfYfYei]glhY. 9B; %%%

=bWiXYg`]VfUmicf]YblUljcb`UbX]bgfi Wijcb`]b`fYgYUW`a Yh\cXg"Cli XYblg`k]```kf]hY WijlWih Ya YgUbXUfYgYUW`dUlYf"

201. Kcf XL]hhfUi fYI (3) F, K, S, Si

DfYfYei lgllYg '9B; '%%2%%"

GYYMMXkf|hMfgVY||bb|b||k||h\h\Y; fYY_gUbXWb|hbi||b||h\fci|\h\Y%h\Wbhifmi

202 Kcf XL]hMui fYII (3) F, K, S, Si

DfYfYei |g|hYg '9B; '%%z%%;"

GYYMMXXk cfXk f]lMfgZfca lhYY][\hYybh lhfci [\hYlk Ybl]Yh Wybh fm"

300 L]hhftfmCf]h]ylga UbXAbUnglg(3) S

DfYfYei]g|hY. '9B; '88%cf'8884"7cfYei]g|hY. '9B; '88%cf'88&UhMfbUhj Yž

Cj Yfj]Yk 'cZa Yh\cXc'c[]Yg'UbX'j Uf]ci g'gWcc'g'cZh\Ycfmi gYX']b'`]lMfUfmiUbUngYg'k]lh 'gdYyJU'UtMbljcb'hc WcgYfYLX]b['HYWb]ei YgzWri d'YX'k]lh 'a UgMfmcZA @5 gmiY [i]XY']bYg''

Cca d'Yl]cb cZENG 111, 112, 201 UbX202]gdfYfYei]glfYlc U`l\YZc``ck]b[:

ن 305 DfUa U(3) Ej YfmiI\]fXMVf*

FYMdfcW/WyXlh7CA'S)"

FYdfYgYbHUHj YXfUa UggYYWMXX7fca ``]lhfUrnzi\]glrcf]Wicfh\Ya UHWlnndYg''±bWi XYggl W | kf]lhfgUg=VgYbž7\Y_\cjžG\Ukž6fYWhžCNBY]``ž=cbYgWržUbXGcm]b_U'

310 PcYfm(3) Ej YfmT\]fXMUf*

FYdfYgYbHJHj Y`dcYlfmgYYMMX'Zfca ``]lMfU'nzi`\]gfcf]Wfcf`l\ Ya UJWmdYg"⇒bWl XYgʻl\ Y k cf_gʻcZgl W`k f]lMfgʻUgʻGUdd\cz̃7Uhi ``i gžDYlfU'Wz̃; cYl\\YžDi g_]bz̃9`]chžUbX` : fcgh'i

311. L]hMfUi fYUbXF]`a (3)

5 b Y1 Ua]bUljeb c Zl\Y]bhYfgYMjeb c ZÚ a UbX`]hYfUrnHY1 lgUbXh\YgWc`U`mLbUngYgcZ YUWbUfUljj YZcfa Ul'8]gWggjeb]bWi XYgW`hi fU`UbX\]gdrf]Wi`UgdYMgZd\]`cgcd\]W` UddfcUWYghc`UXUdlUljeb`UbXih\YhYWb]Wi`UbUnglgcZÚa"

312 CfYUlj YK f]llb[(3) F, S

FYVJkdfcWtWXJh:7CA '' %&"

9a d\Ugg]gcbh\YdfcXi WijcbcZcf][]bUkf]h]b[gždUfh]W`U`mjbh\Y[YbfYgcZdcYlfmzig\cfhglcfmzXfUaUzUbXYggLhh

318 AXj UbWXCca dcglljcb (3) S; K UgbYXXX

FYMdfcW/WYXh7CA "%"

HYWb]ei YgʻcZk f]lt]b['YZZYMij Y`Yl dcglhcfnžUf[i a YbHJtj YžXYgMldtj YžUbX`bUffUtj Y`bcbÚMijcb`dfcgY"

320 T\YS\cfhSlcfm(3) Ej YfmT\]fXMUf*; K UbXSi AgNYXXX

5 'gh XmcZfYdfYgYbHJj Y'g\cfhghcf]Yg'gYYMMX'Zfca ``]hhfUmz`\]ghcf]Wacf'h\Ya UJW hndYg"=bWl XYg'gl W'k f]hMgUg'A U dUggUbhz'7\Y_\cj zDcYz>cnWz@Uk fYbWz< i fghcbz CÑ'cbbcfz; cfX|a YfzA U\Zci nzUbX; UYJUA Ufei Yn'

334. Si fj YmcZAa Yf]Wb I (3) Ej YfmT\]fXMUf*

5 gli XmcZ`|lMfUi fYZfca 'l\Y7c`cb]Už9U`mBUjcbUžUbXFca UbljWDYf]cXg"

335. Si fj YmcZAa Yf]Wb II (3) Ej YfmT\]fXMUf*

5 ghi XmcZ`|hMfUhi fYZfca h\YFYU]gh|WDMf|cXh\fci [\DcghiA cXMfb]ga "

336 T\YEd]W3 Ej YfmT\]fXMUf*

7ca dƯƯ] Yghi XmcZcfU#Zcfa i `]LWtUYgZfca 'Uci bX'h.Yk cf`X'k \]W`\UJ YVYYb` fYWfXYXZUbXcZh.Y`]lMfUNYMU]cbg]blMbXYXhc]a |ltLMh\cgYlUYg]bgca YlfUX]l]cbg'' =bWi XYggi W`U h.cfgUbX'k cf_gUg;]`[Ua Yg\z~ca Yf]WYd]WzJ]f[]`z=WUbX]VyJU Uz 5f]cghcZA]`hcbZh.YFUa UntbUzh.YA k |bXc9d]WhDX5a cgH hi c`U'

337. T\YNcj Y (3) Ej YfmT\]fXMUf*

FYdfYgYbHJHjYbcjYgZfca ``]hYfUrnzi\]ghcf]Wacfh\YaUHWhndYg''=bWlXYgglWkf]hYfgUg'7YfjUbhYgz6UnUW28cghcYjg_nzi<Ukh\cfbYz>cmWz:Ui`_bYfzCcgY_]zUbX'5WYYY'

- -

490 SYblcf T\Yglg(1) S

DfYfYei |g|hY. DYfa |gg|cb cZh Y8 YdUfha Ybh7\Uf

H\YW`a]bUlcb cZh\Ya Ucfzh\Ygi XYbhk]``Wa d`YhYUh\YgigXYa cbgfUlb[Ub i b! XYfgUbX]b[cZh\Ydf]bVld`YgcZ`]hYfUmih\YcfmUbXW]ll\Yga "H\Ygi XYbhk]``dfYgYbh UbXXYZbX'h\Yk cf `VYZcfYUZW`hmdUbY"

498 SYa]bUf(3)F

5 gli XmcZgYYMMX hcd]Wycf k f]lMfgcZk cf X`]lMfUi fYhc \Yd l\Ygli XYbhi]blM[fUhY UbXY] Ui UHYa UMf]U]b UfYLgbchl\cfci [\`mWj YfYXVmWi fgYk cf_ UbXhc HuW'h\Y gli XYbhM]l]W UddfcUWYgUbXa Yh\cXgcZfYgYUW"H\Ygli XYbhk]``k f]lhYUdUdYf UbX XYZbXh\YdUdYf]b Udi V]WCfi a cdYb hc ei Ygl]cbg"

9B;@

180280380480 Shi XmAVfcUXPfc[fUa g(1-4) AgNYXXX

5 ``Wi fgYgUbXh\Y]fUdd`]WI]cbga i ghVYXYÚbYXUbXUddfcj YX'df]cf hc hfUj Y''

19567. SdYVJU Shi XJYg(1-4) Ob DYa UbX

@ck Yf! Yj Y [fcidgh X]Ygk \]W Xc bchUddYU]b h YfY[i 'U XYdUha YbHJ cZZYf]b[g'

39567. SdYMU Shi X|Yg(1-4) Ob DYa UbX

I ddYf! Yj Y [fcidgh X]Ygk \]W Xc bchUddYUf]b h YfY[i 'Uf XYdUfha YbHU cZZYf]b[g'

49567. IbXYdYbXYbhShi Xm(1-4) Ob DYa UbX

=bX]j]Xi U fYgYUfW i bXYf h\Y[i]XUbWcZUZUW`hma Ya VYffgt".

ł7cbgi `hih\Y9b[`]g\ 8 YdUfha YbhZcf XYHJ]`g'

```
' "' D< @'&{ $\vec{z}' (*\vec{z}' (+\vec{z}' (-\lambda ' \%ci fg
                          (" DG7 828 28% ž * ' & - '\ci fg
                          ) " GYblcf GYa |bUf (-, ']b Y|h Yf DG7žD< @žcf '97: Í ( \ci fg
               6" 9`YMij YWi fgYdcc`Í gYYMi% \ci fgk |h\ Un`YUzhcbYZfca YUW' | fci d
                          %'' 97: '\&\ \bar{z}'))\bar{z}(\%\bar{z}(\%\bar{z}('\$
                          &" D< @'() /< CB '&%$z\&\$z'\&\$z'\($
                          ' "' DG7 ' % ž' &( ž' &) ž' ( ( ž' * $ž( %)
               7" DD9 a UcfgUfYY Ya dhZfca h\YfYei | fYa YbhcZWa d'Yhb | Ua | bcf
IJ.
             TYUWY L | Whogi fYZcf H | glrcfm(GfUXYg7-12)
              5" A Ucf fYei |fYa YbhgUgg\ck b UVcj YUbXhc |bWi XY' &&"
               7" DfcZ/gg|cbU 9Xi Wl]cb. 98I % $z\$\$z' & z(\$\) z(''/DGM&\$\$\%\/C9\&\\"8" 7ca d`Yl]cb cZUdd`|WVYdcfl]cbgcZl\YDfU |g=" \X\\^2\\
               8" 7ca d`YhcbcZUdd`]WWYdcfhcbgcZh\YDfU]g="
              9": cf UXX|h|cbU^|bZcfa Uh|cbžgYYh,Y8|fYMcfcZHMWYf9Xi Wh|cb"
             TYUWYf L]Whogi fYZcf Gcj Yfba Ybh(GfQXYg7-12)
               5" A Ucf fYei |fYa YblgZcf DG7 Ugg\ck b UVcj Ylc |bW/XY' % ž' % ž' &) "
               6" 7cfYhc]bWtXY; 9C%&f&%) cf&%/<=G%%z%&&&%UbX&&;
               7" DfcZ/gglcbU 9Xi Whlcb. 98 I % $\tilde{z}\ \$\tilde{z}\                8" 7ca d'Yllcb cZUdd']WWYdcfllcbgcZh\YDfU |g="
               9<sup>ll.</sup> : cf UXX|h|cbU |bZcfa U|jcbžgYYh\Y8 |fYMcf cZHYUWYf 9Xi Wh|cb"
             H|glcfmM|bcfÍ 21\cifg
               5" FYei |fYa YblgcZU` < |glcfmA |bcfg
```

%" < =G%%ž%&ž&()

8YdUfhaYbh'cZ'@Ub[iU[Y7c'`Y[Y'cZ'5fhg'UbX'GW]YbWYg

:UWi`hm

JMb Mtf]YK U`gfl%, +E"DfcZ/ggcf`cZ@tb[i U YtbX'8 Ydtfla Ybh7\Uff"6"5 "tbX'A "5 "z A [ggggdd] ClthYI blj Yfglm/tbX'D\"8 "z@ci [glbUClthYI blj Yfglm'i5 XX]h]cbU`gh Xnzi B cfl\k YghtbI blj Yfglm'i

Ji`]YG`cggcbf%-)E"5ggcVJUYDfcZYggcf'cZCdUb]g\"6"5"zI b]cb1 b]j YfglmrA "5"zUbX' 9X'8"zI b]j YfglmrcZA Ya d\]g"

Cnbh JUPck Y`JUhbYfl%+*E'I blj YfglmDfcZzggcfcZ@Ub[i U YUbX5ggcVJUhYDfcjcgfi Zcf=bhYfbUhcbUUbX=bhYfWhifUChiX]Yg"6"5"ZA]ggggddd]7c``Y[Y/A"5"UbXD\"8"Z@ci]gUbUGUhYI blj Yfglmx5XX]hhcbUghiXmxJUbXYfV]hi blj YfglmxI blj YfglmcZ?Yb!

I WmxUbXhYG a a Yf-bghlhihYcZ-bhYfWhifU7ca a i b]Whhcb"

KKHYLD MUHJLD fRSS' E' 5 gglgH.DhDfcZ/ggcf'cZ@Ub[i U Yg"6"5 "ZGUa ZcfXI b]j Yfglmr/6"5 "Z I b]cb'I b]j Yfglmr/A "5 "ZH\YI b]j YfglmrcZ5 `UVUa U'8 cWcfU '7 UbX]XUNZA]XXYVi fmi 7c``Y[Y"

P\]``]d G. RnNub f1%-+E":5ggcV)UHYDfcZ/ggcf`cZ@Ub[iU]YUbX`7ccfX]bUrcf`cZh\Y9G@'Dfc[fUa":6"5"ZIb]cbIb]p A] žfA b'6ž žfA

325 P\cbYl]WyUbXD]Wijcb (3)

DfYfYei |g|hY. CbY&\$\$! Yj Y Wi fgY'

Dícbi bVILHcbž|bhcbUHcbždUHMfbgzUbXi gYcZh\Y=bHMfbUHcbU'D\cbYHV6`d\UVMi'

330 AXi UbWXGfUa a Uf I (3)

DfYfYei]glhY. CbY &\$\$! Yj Y Wri fgY'

7ca dfY\Ybgj YfYj]Yk cZ[fUa a Ufk]l\\ UH\bhligbhc UXj UbWXWbWdlgUbXgffi Wi fYgbchWj YfYX]b``ck Yf``Yj Y`Wi fgYg''8 Yj Ycda YbhcZk f]lljb['g_]``g'UbX'Udd`]Wlljcb`cZ [fUa a Uf'WbWdlgl\\fci [\ Wa dcgl\]cb"

417-8 AXi UbWXFfYbW Shi XIYg(3)

DfYfYei |g|hY g|l \ci fgcZUXj UbWX: fYbWftf1hYfY\ci fgUbXWbWffYbhYbfc``a Ybh|b hfYYUXj UbWX\ci fgch\Yf h\Ub (%!, ŁUbXdYfa |gg|cb cZh\YXYdUfha Ybh' ... G dYfj |gYX]bXYdYbXYbhk cf_ gdYyJUW mXYg[bYXZcf]bX|j |Xi U ghi XYbhk |h\ Wbh\bh \u2222

G dYfj]gYX]bXYdYbXYbhk cf_ gdYVJUW`mXYg[bYX7cf]bX[j]Xi U`gh XYbhk]h\ Wbhhbh | XYhYfa]bYX`Vmh\YgWdYUbX'ei U]lmicZh\Ygh XYbhydf]cf`k cf_]b : fYbW"

419 FfUbWd\cbYCi `hi fU Shi XJYg(3)

DfYfYei |g|hY. 8% cf" %"

5 b Yl Ua |bUljeb cZXnbUa |WgcZW hi fY |b h\Y: fUbWod\ebYk ef X'' Gi XmcZW hi fU gngha gž|bghjhi hjebgUbXdfUMjWg''

420 Iblic Xi Wich he FfYbW Nej Y (3)

DfYfYei]glH. CbY&S\$!`Yj Y`: fYbW`Wi fgYcf`Yei]j UYbhdfcÚVJYbWh FYUX|b['UbX'UbUnggcZfYdfYgYbHJHj Y: fYbW`bcj Yg'Ug'U`]lMfUm[YbfY''

421. IblfcXi Wicb lc FfYbW PcYlfm(3)

DfYfYei]glhY. CbY&\$\$!`Yj Y`: fYbWWri fgYcfYei]j UYbhdfcÚVMYbWrh Chi XmUbXUbUnglgcZdcYlfmUbXfYdfYgYbHLhj YhYl lg'Zfca 'h\Y: fUbWd\cbYk cf`X''

430 AXi UbWXGfUa a Uf II (3)

DfYfYei |g|hY.: F9" '\$"

5 b UXj UbWX gli XmcZ: fYbW [fUa a Ufk]h\ df]a UfmZcWgcb h\ Yh\ YcfYl]WV WbWdlg h\ Uh[ci Yfb | fUa a UlW glfi Wi fYg"

7cifgY'CZZYf]b[g']b'; YfaUb'fl; 9FL'

flk< ci fg7fYX|h: !: U`/K !K |bhMf/ClCdf|b[/Cl !Cl a a Yf

111-2 BY | |bb|b| GYfa Ub (3UbX3) AgNYXXX

: i bXLa YbHJgʻcZdfcbi bVJLljcbžWrbj YfgLljcbž[fLa a UžUbX Wra dcglljcb"; 9F`98% WbbchiVYH_YbʻZcf`WYXJhVmgli XYblgʻk \c`\Uj Y\UX'h\fYYcf`a cfYgYWbXUfmgWcc``i b]lg"H\fYY\ci fg`YWl fYUbXcbY\ci f``UV'dYf`k YY_"

211-2 Ibhfa YXJUYGYfa Ub (3UbX3) AgNYXXX

DfYfYei |g|hY.; 9F %&cf XYa cbgffUhXXdfcÚMYbWh

FY | Yk cZ| fUa a Uf/fYUX|b| cZ; Yfa Ub lM lg/Wbj YfgUl]cb UbXWa dcg|l]cb"

7cifgY'CZZYf]b[g']b'6]V']WU''@Ub[iU[Yg'fl; F?'UbX'<6FL'

Fcfa Ucf UXa]bcffYei]fYa YblgUbXWi fgYcZZYf]b[g]bB]V`]W LUb[i U Yg(GfYY_UbXHYVfYk), gYYh YSWcc`cZC\f]g]UbSh X]Yg

.@**5B**;15

%%&

7cifqY'CZZYf]b[q']b'G][b'@Ub[iU[Y'flG=; L

flL< ci fg7fYX|h:!: U`/K!K|bhMf/GCdf|b[/G!Ga a Yf

101-2 IblfcXi Wich lc Aa Yf Wb S | [b LUb [i U Y (3 Ub X 3) 101 I F, 102 I S

: i bXLa YbHJgcZ5 a Yf]WbG[[b@Ub[i U Yff5G@L]bWi XYggnbHJžgYa UbHWgZUbXdfU! a UlWcZg[| b||b[Ugk Y`UgUb ||blfcXi Wl|cb lc XYUZW`li fY'H\YgYWi fgYgXc bchgUl|gZhi h\YWfYWff]W\`i a ``Ub[i U YfYei]fYa Ybh''

7cifgY'CZZYf]b[g']b'GdUb]g\'flGD5L'

flL< ci fg7fYX|h:!: U`/K!K|bhMf/G!Gdf|b[/G!!Gi a a Yf

9 111-2 BY[]bb]b[SdUb]g\ (3UbX3) 111 F, S; 112 F, S 0 : i bXUa YblUgcZdfcbi bVJUljcbžWbj YfgUljcbž[fUa a UžUbXWa dcg]ljcb"CD5 99%Wb! bchVYhU_Yb Zcf WYX]hVmgli XYblgk \c \U Y\UXh\fYYcf a cfYgYWbXUfmgWcc `i b]lg'' H\fYY\ci fg"YMI fYUbXcbY\ci f"UVdYf k YY_"

211. Ibhfa YXJUYCcbj YfgUlcb UbXGfUa a Uf (3) TU [\hYj Yfm4\ gYa Yghf

DfYfYei |g|hY. CD5 '9%&z &cf'a cfY nYUfg'\][\gWcc``GdUb]g\ cf XYa cbglfUhYX dfcÚ! VIXIbVIn'i

7cbj YfgUljcbž`]glYb]b[Wa dfY\Ybgcbž]blfcXi Wljcb hc d\cbYl]Wg[fUa a UfYj]Yk "

212 Cca dcgllicb UbXGfUa a Uf (3) TU [\hY; Yfm4\text{ gYa YglYf

DfYfYei |g|hY. CD5 %%&&&cf`a cfY`nYUfg`\][\ gWcc``CdUb|g\ cf`XYa cbglfUhYX`dfcÚ! V/WbWh

FYj]Yk cZZ bXUa YbHU [fUa a UfUbXWbH]bi YXXYj Ycda YbhcZ\][\Yf`Yj Y Wa a i! b|Whij Y'g_|``gk |h dUflyW`U ZcWgeb gfYb[h\Yb]b[kf]hb[UbXWa deghlebU g_|``g''

213 Iblic Xi Wijcb lo H]gdUb]WCi 'li fYg(3) TU [\hYj Yfm4 gYa YgHf

DfYfYei |g|hY. CD5 '%&z &cf'a cfY nYUfg'\][\ gWcc``CdUb]g\ cf XYa cbglfUhX dfcÚ! VIX/bVk/n

FYLX|b| g UbX cl\ Yf a UYY|Ug cb gYYVWX UzdYWg cZGdUb|g\ UbX GdUb|g\ 5 a Yf|Wb WhifYg"

214 RYUNID[g]bL]HYUi fYUbXCi 'li fY(3) TU [\hY; Yfm4 gYa YgHf

DfYfYei]g]hY. GD5 '%&z&cf'a cfY'mYufg'\][\'gWcc``GdUb]g\'cf'XYa cbglfUhYX'dfcÚ! VIXIbVIn'i

8 Yi Yoda YbhoZfYUX|b[g_]``gbYWgqtfm7cfUbUnnn|b[HM lgfYdfYgYbHb[UVfcUXfUb[Y cZk f]lhMbgci fWg"

UddYf `Yj Y Wri fgYgUfYcZZYfYXcb U2cf 3mYUf fclUljcb: 311. Si fj YmcZSdUb]g\ L]hYfUi fY(3) AgNYXXX

DfYfYei |g|hY. CbY&\$\$! Yj Y GdUb|g\ Woi fgYcf Yei |j UYbhdfcÚV|YbWah Chi XmcZh\Y`|l\fu fYcZCdUbZca DcYa UXYA |c 7 |Xh\fci [\h\Y\h\\Wbh fm"

312 Si fj YmcZSdUb]g\ L]hYfUi fY(3) AgNYXXX

DfYfYei |g|hY.cbY&\$\$``Yj Y`CdUb|g\ Wri fgYcf Yei |j UYbhdfcÚV|WbWrh Chi XmcZh Y`|hMfUhi fYcZCdU|b Zfca 'h YVY| |bb|b| cZh Y% h Whohi fmhc h YdfYgYbh'

313 AXj UbWXCcbj YfgUlcb (3) AgNYXXX

DfYfYei |g|hY.*\cifgcZGdUb|g\Uhl\Y&\$\$``Y|Y`cfXYacbglfUhYX`dfcÚV|YbWh 5Xj UbWX cfU Wa a i b|WHcb k |h\ Ya d\Uggcb fYW[b|n|b[UbX i g|b[Uddfcdf]UY fY||gMz||bMfdYfgcbU_g_|``gZcfX|ZXfYbhWbM||bzbcb!|YfVU_Waaib|Wd|cb"

316 Si fi YmcZSdUb]g\ Aa Yf]Wb L]lYfUi fYlc l\ Y 19\ CYbli fm(3) AgNYYXYX DfYfYei |g|hY. CbY&\$\$! Yj Y GdUb|g\ Woi fgYcf Yei |j UYbhdfcÚV|YbWah FYdfYgYbHJj YCdUb]g\5a Yf]WbUh\cfgZfca h\Y7cbei Yghlch\Y%h\7Ybh fn"

317. Si fi YmcZSdUblg\ Aa Yf|WbL|lhfUi fYZfca l\ Y19\ CYbli fm(3) AgNYXXX

DfYfYei |g|hY.CbY&\$\$! Yj Y CdUb|g\ Wi fgYcf Yei |j UYbhdfcÚVJYbWh FYdfYgYbHJhj YCdUb|g\ 5 a Yf]Wb U h\cfgZfca 'h\Y% h\ 7 Ybh fmhc h\YdfYgYbH

319 HjglcfjW PYfgdYMij YgcZh YHjgdUbjWK cf X (3) AgNYXXX

DfYfYei |g|hY. Ubm&\$\$! `Yj Y` Wi fgY

5 Xj LbWXgli XmcZ< |gdlb|WlYfgdYMij Ygcbh\Y\]glcf]WlXij Ycda YbhcZh\YW'hi fYgcZh\YGdb|g\!gdYU]b['k cf'X"

320 SdUblg\ Zcf Bi glbYgg(3) AgNYYXYX

Cf[Ub]nUjcb*UbX`dfUMjWg`cZh\Y`<]gdUb]Wi glbYgg`k cf`X`k \]W`YI Ua]bYg'h\Y [Yc! dc`]ljWr*UbX`gcVjc!YWbca]WZUMcfg h\UiUZYMiVi glbYgg`dfcWXi fYg`]b*UfYLg`g W*Ug`UbUbWža Uf_Yljb[zUxj Yfljgb[UbXa UbU]Ya YbhYUbX`Ub[i U]YUddfcdf]UhYlc Vi glbYgg`Ybj]fcba Yblg'

325 P\cbYl]VgUbXD]VkJcb (3) AgNYYXYX

DfYfYei |g|hY. CbY &\$\$! Yj Y Wi fgY"

Dîcbi bVJU]cbž]bhcbU]cbž`Ub[i U YdUhMfbg'UbX`i gY`cZh\Y=bhMfbU]cbU`D\cbYh]W^{*} 5`d\UMh"

330 AXi UbWXGfUa a Uf I (3) AgNYXXX

DfYfYei |g|hY. CbY &\$\$! Yj Y Wi fgY'

7ca dfY\Ybgj YfYj]Yk cZ[fUa a U'k]l\ UH\Ybl]cb lc UXj UbWXW\YbWdlgUbXgfi Wi fYg bchWj YfYX]b``ck Yf``Yj Y`Wi fg\Yg"8Yj Ycda YbhcZk f]l\]b['g_]``g`UbX`Udd`]WM\]cb cZ [fUa a U`WYbWdlgl\\fci [\ Wa dcgl\]cb"

411. IblfcXi Wijcb lc H]gdUb]WDfUa U(3) AgNYXXX

DfYfYei]g]hY. CbY' \$\$!`Yj Y Woi fgY'

FYLX]b['UbX'UbUng]gcZgYYMMX'<]gdUb]Wil'Ung"Gi XmcZXfUa UUg'U']lMfUm[YbfY''

4178 AXj UbWXSdUb]g\ Shi XJYg(3) AgNYXXX

DfYfYei]gllY. G]l \ci fgcZUXj UbWX`GdUb]g\ fbf l\ fYY\ci fgUbXWbWffYbhYbfc``a Ybh]b l\ fYYUXj UbWX\ci fgcl\ Yf l\ Ub (%!, ŁUbX`Uddfcj U`cZl\ YXYdUf\a Ybh' G dYfj]gYX]bXYdYbXYbhk cf_ gdYYJÚW`mXYg[bYXZcf]bXJj]Xi U`gli XYbhk]l\ WbhYbh XYhfa]bYX`Vml\ YgWdY`UbX'ei U`]lmcZl\ Ygli XYbh\gdf]cf k cf_]b GdUb]g\"

419 H]gdUb]WCi 'hi fU Shi X[Yg(3) AgNYXXX

DfYfYei lglhY.'8% cf" %"

5b Yl Ua |bUt|cb cZi bXYf`m|b| Wu gYgcZW/hi fU d\Ybca YbUcZh\Y< |gdUb|Wk cf`X"

420 IblfcXi Wijcb lc l\ YH]gdUb]WVcj Y (3) AgNYXXX

DfYfYei |g|hY. CbY&&\$!`Yj Y`CD5`cf`Yei |j UYbhdfcÚVJYbWn'/ `|bgffi Whcf\gwbgYbh' FYLX|b[`UbXUbUnggcZfYdfYgybhLhjj YGdUb]gwbcj YgUgU`|hYfUm| YbfY'

430 AXj UbWXGfUa a Uf II (3) AgNYXXX

DfYfYei lglhY. GD5 " ' \$"

5 b UXj UVVX`ghi XmcZCdUb]g\ [fUa a Ufk]h\ df]a UfmZcWgcb h\ Yh\ YcfYh]W/ WrbWdlg` h\ Uh[cj Yfb [fUa a UhW ghi Wi fYg"

35B: 15:9

%%(

$\label{eq:continuity} \begin{picture}(2000) \put(0,0){\line(1,0){19}} \put(0,0)$

210 LUb[i U Y & CcbhhbhTi hcf]b[(3) F

7cbglXYfggWjUflWYgUgaYacfmãachjUljcbž`Ub[iUYg_]``z]bZcfaU`bYXXgUglgYggaYbhUbXW``UVcfUljcb`]b`XYjYcd]b[Ub`YZXWijYh kcf]b[UddfcUW"HkYbhnUjYWcW`\cifgcZgdYj]gXXh kcf]b[UYYfYei]fYXUjUm]b[``YjY`UbXh kcf]b[bYXXg'

220 Pf]bV/d`YgcZLUb[iU]Y&AWi]glt]cb(3)S

G fj YmcZ`Ub[i U YXYj Y`cda Ybhz`]b[i]gljWg`cZ8Ms[i]g&86bX`ch\Yf``Ub[i U Ygz`dgmWc!`]bei]gljWUbX`gcVJc`]b[i]gljWj Uf]UV`Yg`UbX`h\YX]ZZYfYbWg`VYlk YYb`UfghUbX`gYWbX``Ub[i U YUWi]glh]cb"

310 T\YL]a]hXXEb[`]g\ PfcÚyJYbhSh XYbh]b PfYK-12(3) F

- DfYfYei |g|hY. H9G@'8%\$'/ '8&\$"

96@MgMcfmtbXdftXMjV4742f]bWfdcfU-jb[@DghtXYbhgcZjUfmjb[UV]]hjYg]bhcV]!UbX • ai`hj]b[iUWLggfccagk]h\ZcWgcbaYh\cXgzUddfcUWYggghfUM[]YgzYUfb]b[ghmYg

8YdUfh a Ybh'cZ'AUh\Y a Uh]Wg'UbX'7c a d i hYf'GW]YbWY 7c"Y[Y'cZ'5fhg'UbX'GW]YbWYg

: UW i `hm

➤ Bfntb DUk gcb f1%-, Ł"DfcZ/ggcf cZA Uh Ya Uţ]VgUbX8 YdUfha Ybh7\Uf"6"G"UbXA "G"z Djhgvi f[Chlhy I b]j Yfg|hm/D\ "8 "žI b]j Yfg|hmcZB cfh\ HM Ug"

R|WUXDY\bf%*-L"5 ggc\JUYDfcZ/ggcfcZA U\\Ya U\\\Y6'G'ZI b|j YfglmcZA Ya d\]g/ A "5 "HžDi fXi YI blj Yfglm/A "GžI blj YfglmcZ5 f_UbgUž5 XXlhcbU gli XnžI blj Yfglmi cZK lgWbglbžI blj YfglmcZ5f_UbgUžI blj YfglmcZA lggci f]!Fc``U'

SHYd\Ub|YEX|Yf1%-*Ł"5ggcWUhYDfcZYggcfcZ7ca di hYfGWYbW'5'GZA [XXY; Ycf] [U 7c``Y| Y/6"GZK Ygh; Ycf[]U7c``Y| Y/A "GZ; Ycf[]UGLHYI b]j Yfg|ma'A '8]j "ZGci h\Yfb" 6UdhghH\Yd

cZA Ya d\]g"

"fl&\$\$%L"5ggcVJUhYDfcZYggcfcZ7ca di hhfCJJMbW'6"A "žI b]cb I b]j Yfg]hm?

I blj YfglmcZB Yvf°g U/D\'8 'zH 'UbYI blj Yfglm' F°m'vi fb FłWUf`

I blj YfglmcZA lgglggdd" A lgglcb Chtha Ybh

FJfghMtf Pfc[ftaa]b[Aku...
idtha YbhcZA Uh Ya UhlytUbX7ca di in.
bXYl dYfhgY]b Ufghmtf dfc[fta a]b[Wi fgYg
TYKcZTu RYgytWibWAk UX]gUk UXXXtcUZYg...
infh Y8 YdUfa YbhcZA Uh Ya UhlytUbX7ca di htf CM/hbWVUgz...
i hgtbX]b[UW]Y Ya YbhzYbhi gUga z]b[Ybi]milbXWYUhj]milb a Uh 16.

7 iff]Wi`i a.`AUh\Y a UhlWg
HYXYdUfla YbhcZZfgUa Ucf]ba Uh Ya UhlytUbXa]bcfg]ba Uh Ya Uhlyza Uh Ya Uhlyg
HYXYdUfla YbhcZZfgUa Ucf]ba Uh Ya UhlytUbXa]bcfg]ba Uh Ya Uhlyza Uh Ya Uhlyg
LPUhngYYMXGaXhYYZO;WJB[FhtONg]a Nh Ya Uhlyg Uff]ba Uh Ya Uhlyg PUhngYYMXGaXhYYZO;WJB[FhtONg]a Nh Ya Uhlyg Uff]ba Uh Ya Uhlyg PUhngYYMXGaXhYYZO;WJB[FhtONg]a Nh Ya Uhlyg Uff]ba Uh Ya Uhlyg PUhngYMhEWYO WhoyMff Nh Ya Uhlyg Ya K....
Zef gywbXUmiXi Which ff fUXYg+!%WZcf!%WZcf g

YbcbXUF*

YbcbXUF*

YbcbXUF*

YbcbXUF*

%%,

XlgMMlcbcZh\YXYdUfhaYbh'

ł Gl \ci fga U]a i a 'a UniVYUdd`]YXhck UX[fUXi U]cb Zfca 'A 5H%%%%%" 48cYgbchUdd`mhck UXh\Ya Ucf cf a]bcf"

7 iff]Wi`ia.'7cadihYf'GW]YbWY

H\YXYdUha YbhcZxfgZti f'd'UbgcZgli Xm7ca di hhf'GMYbWa Ucfz8][]hU'A YX]U Gi X]Yga Ucfz7ca di hhf'GMYbWa]bcfzUbX7ca di hhf'=bZcfa Uljcb'GnghYa ga]bcf''

I dcb Wa d'Yhcb cZh Y 7 ca di hhf CN/hbWA Ucfzh Y gi XYbhk]``\U YUb i bXyf! X'gibX]b[cZUbX Ub UddfYn/Uhcb Zcf h Y]bhhffYUhcb cZh Y) a Ub UfYlg cZgi Xmi]b '9 7 ca di hhf CN/hbW. Y Ya Ybhg UbX UfW]hWh fYzdfc[fUa a]b[WbWdlg UbX `Ub[i U Ygz 6 U [cf]h a gixUlugfi Wh fYgzUbX Wa di hhf h Ycfm'h Ya Ucf Ya d\Ughygh YdfUhlyW \\ \text{Udd']Wh}cb cZv UglwWbWdlg Zca YUW/h YfycfYzh Y[fUxi UhYk] ``VYUV Yhc Wbh]bi Y Q gi Xmi]b 7 ca di hhf CN/hbWUhh Y[fUxi UhY Y Yzcf Ybhhf h Y cVa U _ Yh'

H\Y8][]IU A YX]UChi X]Yga Ucf]gUb]bhfX]gyld`]bUmdfc[fUa 'c]b]b[5flž7ca! \cdot \alpha i b]Wh]cb5flzZUbX7ca di hff GyMbW'=lgdi fdcgY]ghc dfcXi WUghi XYbhUygh Yh]W'mz h\YcfYh]W'mzUbXh\Wbc'c[]W'mfUbYXUbXWdUVYcZY W'YbW]bh\YfYUhj YmbYk \cdot \alpha \text{UYUcZh YXyg[bzdfcXi Wh]cbzUbX]a d'Ya YbhUh]cbczX][]HU Wa a i b]Wh]cbga YX]U' \cdot \alpha \text{WXXUYg W UYYg Ugk W'dU YXYg[bzX][]HU j]gi U UbXU fU Wa a i b]Wh]cbg \frac{\pma}{\pma} \frac{\p

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105. Si fj YmcZM]WicWa di ljb[Add`]Wldcbg(3) F, S

115 Cca di Hrf SVMbW: IblfcXi Wich & Oj Yfj JYk (3) F, S

=blfcXi VijcbYl dcglb['a Ucfg#a]bcfghc h\YVYVXh\ UX]blhffYUjcbg\]dgcZVvi fgYg]b h\YÚYX UX Ya dck Yfg ch\Yfg Zcf 'U Wbh]bi ci g Yl d'cfUjcb cZhcXLhh\y h\Wb]W` gcVjMn\n"5 `Ub[i U Y.]bXYdYbXYbhcj Yfj]Yk cZ\UXk UY UX gcZk UY k]h\ Ya d\Uglg cb'dfcVYa gc'j]b[UbXU[cf]h\a XYj Ycda Ybh'7UbbchVYYUbYX Zcf ViYX]hUhY %\s)` k]h\ci hXYdUha YbhU Uddfcj U'l

, , 19]h\Yf%5) cf%6) Udd`mhch\Y6"G"gdYVJÚVWofYžVi hbchVch\"

125 Cca di Hrf SVMbWI: Pfc[fUa a]b[]b JUj U(4) F, S

DfYfYei |g|hY. 7G7 %%) "

6UglVWvbVvdlgcZdfcVYa 'gc'j]b[žU[cf]lha 'XYg[b'UbX'UbUnglgžUVglfUMiXUUInndYgžUbX'dfc[fUa 'gffi Wn fYg''; I =XYj Ycda Ybhik]``VY]blfcXi WX'UbX'h\YcV'YWncf]YbhXX'dfc[fUa a]b['dUfUX][a 'k]``VYYa d\UglnYX''Chi XYblgk]``XYg[bž]a d`Ya YbhžXYVi [ž hYghUbX'XcWa Ybhdfc[fUa g'Zcf'j Uf]ci gUdd`]Whfcbg''

205 Cca di hhf SVMbWII: A`[cf]h\a g& DUUShi Wi fYg(3) F

DfYfYei |g|h\f 767 \%) \(\tilde{z}\) A 5H\tilde{8}\) "DfYlcf 7cfYei |g|h\tilde{x}\) A 5H\tilde{8}\tilde{x}\)

5 ghi XmcZh\YWa d'Yl]lmcZU[cf]h\a gUbXU\3 UbWXXUlUghi Whi fYgž]bWi X]b['lhYyg'UbX'[fUd\g''Hcc`g'Zcf'UbUmn]b['lh\YYZÚ\JYbWhiUbXXyg][b'cZU[cf]h\a gž]bWi X]b['fY!WffYbWzX]j]XY!UbX!Wbei YfzXnbUa]Wdfc[fUa a]b['zUbX'[fYYXmiU[cf]h\a g''

220 Cca di htf RYdUf UbXMUbhhbUbW(3) S

DfYfYei]g]hY. 7G7 %%) "

5 `\UbXg\cb`UddfcUW`lo`Wa dYlMbW`]b`WbU[i f]b[z̃]bg\U`]b[z̃X]U[bcg]b[z̃fYdU]f]b[z̄ i d[fUX]b['UbX'a U]bHJb]b['a]WicWa di hfg'UbX`UggcVJUhX`lMWbc`c[]Yg''H\YWi fgY`Wj YfgVcl\ WfY\UXk UYUbX`CG'hWbc`c[]Yg''

235. Cca di hMf Eh] Vay (2) S

A Ucf gcVJU UbXYh\ JW 1gg Yg]b Wa di Hb[ž]bW X]b[]a dUMcZWa di Hrgcb gcVJMm UbXh\ YWa di Hrf dfcZ/gg|cbUNvWXYcZYh\ JW

245 FORTRAN (3) AgNYXXX

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ZW\`hmUh\YVcUXYl Ua]bUljcb Uh\YWbWi glcb cZh\YgYWbXgYa YgMf`cZgh Xn'iH\Y
Udd`]YXZW\`hmk]``UggYgg'h\Ygh XYbh\g`UW]Yj Ya YbhUbXdchYbhJU UbXk]``UXa]hh\Y
gh XYbhhc h\YdYfZcfa UbWa Ucf`cf`fYWa a YbXh\Uh\Ygh XYbhWccgYUbch\Yf`a Ucf`
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HUbgYf gli XYblgk]h, cfacfYci fg]bdf]bVldUUdd`]YXgli X]Ygk]``fY[]gMf Zcf A I G&) SXi f]b['h, Y]f UfgligYa YgMf UiI b]cb"5 hlh, YYbX cZh, YgYa YgMfZh, Ygli XYbh k]``dYfZcfa Ugcd\cacfYVcUXYI Ua]bUl]cb hc XYMfa]bYUdd`]WM]cb cZh,]gWi fgY UbXZ hi fYUdd`]YXgli X]Yg"

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b UXX|h]cb hc h YfY[i `U]cbg]bWi XYX]b h lg Catalogueza i g]Wa Ucfg UbX a]bcfg UYfYgdcbg|VYZcf Zc``ck]b[h YdfcWXi fYgzdc`]VWgzUbX[i |XY]bYgdfcj |XYX]b h Y Department of Music Handbook' FYW|U UhhbXUbWfYei]fYa YbhgzUbXch Yf]a dcflUbh dc`]VWgzVcUXYI Ua]bU]cb UbXfYW|U dYfZcfa UbWfYei]fYa YbhgzUbXch Yf]a dcflUbh a Uhf]U UY]bWi XYX]b h Y Handbook'

9bgYa VYfYei]fYa YblgUfYVUgYX'cb XY[fYYz Yj YzUbX'df]bVJdU Udd`]YX'UfYU '

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- i 7\ifWAigWYei]fYgUrYUgh*ghaYghfgcZWcfUYbgYaVYg/lkcch\YfghaYghfgaUnlVYZ\UrYXVmUbmch\YfYbgYaVYgZcfk\]Wh\YghiXYbh]geiU]ÚYX'' ?YmVcUXdf]bVJdUgUYfYei]fYXhc]bWiXY&gYaYghfgcZAIG%%(,%lnckUXh\YfYbgYaVYfYei]fYaYbh'
- i DYfZcfa UbW#9a d\Ug|g]bJc]WfYei]fYg, gYa YgNfgcZWcfU YbgYa VYg'
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- H\YcfmfYei]fYg, gYa YgMfgcZUbmMbgYa VYZcfk\]Wh\Ygh XYbh]gei U]ÚYX'' ?YmVcUFXdf]bVIdUgcb`mLFYfYei]fYXhc Wa d`YMY(gYa YgMfgcZA I G%%(,% cfA I G&\$''
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 a Ybhdf]bWdUg"? YmVcUXdfbWdUgUYfYei]fYXhc Wa d`YhY&gYa YgMfgcZd d]Ubc YbgYa VYgz&gYa YgMfgcZA I G&\$UbX&gYa YgMfgcZUbmYbgYa VY"
- ¡ A i gWA]bcfgUYYfYei]fYXhrowa d YhY(gYa YghfgcZWcfU YbgYa VYg]Zj c]W df]bVhdUgcf (gYa YghfgcZ]bgfi a YbHU YbgYa VYg]Z]bgfi a YbHU df]bVhdUg'' ? YmVcUXdf]bVhdUgUYYfYei]fYXhc Wa d YhY%gYa YghfcZd]Ubc YbgYa VYZ% gYa YghfcZA I G&SUbX&gemesters of any ensemble.

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111. Mi g|WI\YcfmI (3) F, S

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212 MigWT\YcfmIJ (3) F, S

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7ca dfY. Ybgji Yghi XmcZUXji UbWXWfca UjW. Ufa cbmjb hcbU a i gjWcZh\Y7ca a cbDfUMjWDYf]cX"H\Y[fUXi U'X]ggc'i hlcbcZh\YhcbU gngha UbXUb jbhfcXi Mijcb hc VugW &\h Wbhi fmiWa deghlcbU'dfUMjWgk]``VY]bWi XYXk |h\h\Ya UghfmcZYYa YbhUfm UbUnhjWi g_]``gYZXMij YUbXUfljW'UhYWa a i bJWhjcbcZh\YcfYhJW']XYUgUbXZcfa U'UbUnhjWi XJgWj Yfn'i

215 SYfj JWP'Unjb[I (1) F

5 Wri fgYXYg[bYXhcUgg]gicf[Ub]ghg]b1hYVri]`X]b[cZUkcfg\]dgMfj]Wr∕naa bžUbhYa ž UbXgc`cUWva dUbn]b[/UbXacXi`Ul]cb"

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A i gWV`lfYbXg l\ fci [\ci h'l\ Y k cf`X`UbX`l\ Y U Yg"=bWi XYX`Wbl\Ya dcfUfma i gW Zcf`U``lmdYg`Ug'k Y``Ug`Ull#WUzg\W`a i g\WbX`a i g\WcZcl\ Yf`W`li fYg": cf`bcb!a i g\W a Ucfgcb`n'i

219 SYfj | WP`Uhlb | II (2) S

DfYfYei lglhY. A I G'88% "

5Xj UbWX'gYfj]W'd`Unjb['g_]``g']bW'X]b['cfUcf]c`UWva dUb]a Ybh'UbX'Ú[i fYX'VUgg' d`Unjb["

220 Si fj YmcZMi gWL]hYfUi fY(3) S

DfYfYei lglhY. A I G%&C

=blfcXi Wijcb hc h\Y\]ghcf]Wi ghn\YgcZa i g\W\fci [\^]ghb]b[\LbXg\WfY!f\X\b]b[\hc \ildot\]X\\ Uk cf_]b[_bck \YX] \YcZU\V.g\Wa i g\W\Yd\fhcfmh\fci [\^]ghb]b[\LbXg\WfY.ghi \Xm\5 H\\ hb\X\Lb\W\Lb\Xf\]]\text{yk} cZa i g\Wd\Y.cfa \Lb\Wgk \]\``\Yf\Yei]f\X''

%'' 224 Fci bXLl]cbg]b C\i fW Mi g|W(3) SÍ Ej Yb MUfg

6]V]Wizh Yc`c[]W UbXd\]`cgcd\]W Zci bXUljcbgZcfa i g]Wi]b]gffrzi]bW X]b[ghi X]Yg]b`\]gfcf]W UbXWbhYa dcfUmi7\f]gd]Ub k cfg\]d UbXdfUMjW UgdYMg 1]a Ya UbU Y! a YbhzglUZfYUljcbgzvi X[Yl]b[UbXhfU]b]b[cZj c`i bhYyf^YUXYfg]b h\YWi fW'dfc[fUa "FYei]fYgUYXcVgYfj Uljcb fl \$\ci fgU]b U`cW Wi fW a i g]Wlfc[fUa "

237. Slf|b| MY\\cXg(1) S\(\text{OXXMUfg}

5 WiggcZglf]b[]bglfi a Yblg]gWbXi WMXUgUb]blfcXi Wilcb hch\YhYUW]b[cZglf]b[YX]bglfi a Yblg"

238 K ccXk]bXMYh cXg(1) FÍ OXXMUfg

5 WLgg]b h YZ bXLa YbHJ WbWdlgcZhWJb[UbXd`Un]b[h YWLf]bYhUbXgU cd\cbY'' 9a d\Ug]g]gcb h Ya Yh cXgZcf hWJb['W]]bb]b['gWcc`VUbXdfc[fUa g'

241. BflggMYhcXg(1) FÍ Ej Yb MVlfg

5 W.Leg | b `ck `VfUeg | begffi a Ybleg | g WrbXi WMX`Ug Ub `| blfcXi Wilcb 'hc 'h\Y hYUW | b [`UbX` d`Unjb ['hWb]ei Ygi gYX`] b W.Leg hYUW | b ["

242 PYfWgglcb MYh cXg(1) SÍ Ej Yb MYUfg

5 W.gg | b`dYfW.gg|cb`|bg|fi a Yblg WbXi WMX`Ug`Ub`|blfcXi W.jcb`lc`lh.YlMW.jb[`cZlh.Y`|bg|fi a Yblg`]b`lh.]gZla]`n"i

301. Cca di htf Mi glVl§Yei YbVlb[(2) K

5 b]bHcXi Wilco hca i gWgYei YbWb[i glb[Wva di hYf gYei YbWb[dfc[fUa gUbX:A =8=i WvbHc``YX`gnbh\YglnYfg'

302 TWWbc'c[m72cf MigVNUbg(3) S

H\fci [\gi XmLbX^UcfUcfmM dYf]YbWzgi XYblgVYWa YZLa]`]Ufk]h\h\YWdUJ\]]ljYg cZhWbc`c[mLgh\YmYYUYlcWa dcg]ljcbzdYfZfa UbWzUbUngjzhYUW]b[UbXfYgYUFW"

AIG

311. CcbXi Wib[I (2) F

DfYfYei |g|hY. A I G&%cf WobgYbhcZ|bg/fi Whcf"

5 b |blfcXi Wicfmgli XmcZh,Y | fUa a Uf cZWbXi Wilb| Ua YX UhXYj Ycd|b| Ui gU/Y fydyfic|fycZvLg|vWebXi Whib| dUthyfbgUbXgmyg"HyWblei YgcZWbXi Whib| k|lh UbX k lh\ci hh\YVUcb'UY\bWi XYX"

312 CcbXi Wib[II (C\cfU) (2) S

5 Woblibi Ulicb cZA I G' %k llih Ub Ya d\Ujigcb Udd`mlb[lh Y [fUa a Uf cZWobXi Wilb[' hc UWcfU gYHHb["H\YWi fgYk]`` |bHcXi WYYa YbhgcZWcfU fY\YUfgU HYWb|ei Yg Vi hk | ``ZcWgcb [Ub]b[]bWMydb[dfcÚvNbWhi]bWbXi Wh[b[g_]``gh\UhUYbYWggUm 🔓 Zcf WYUf Wa a i b]WAjcb k]h\ h\YWc]f"

313 E'Ya YbH.fmMi gWMYh cXg& MUHf]Ug(3) S

A Yh\cXgUbXa UhYf|UgZcf hYuW|b[W|`XfYba i g|W|b[fUXYg_|bXYf[UfhYb1\fci [\gl] " =bWiXYgXYa cbgffUlcb UbX cVgYfj Ulcb cZhYUW|b| Uhlx |g Yj Y "8 Yg[bYX df]a Uf] mi Zcf h\Ya i g\WXi Whcb a Ucfzh\g Wi fgY|bj c`j Yggh XmcZUk Y`!VUUbWX dfc[fUa cZglb[]b[ž`]gHvb]b[žf\mh\a [WxWWHj YzUbX]bgffi a YbHJ Uwlj]HYg'

314 CcbXi Wijb[II (Ibglfi a YblU) (2) S

5 Woblibi Ulicb cZA I G' %k ll\ Ub Ya d\Ujgcb Udd`mlb[l\ Y] fUa a Uf cZWbXi Wilb[' hc Ub |bgffi a YbHJ gYHHb["H\YWi fgYk]``|blfcXi WYYa YblgcZ|bgffi a YbHJ fY\YUfgU` hiwblei ygvi hk |``Zcwygcb [Ulb|b|]bwhyddb [dfcUvyybwhilb wbxi whlb[g_]``gh Uh'Ufy byWggUfmZcfWUfWaaib]Whlcbk |h\h\Y]bgfiaYbUfYbgYaVY

315 HlghcfmcZMigWV(3) F

DfYfYei |g|hY: A I G%&UbX: A I G'&&\$"

G fj YmcZa i gWZfca h\Y; fYY ghc h\Y6Ufcei YW%+\$\$k]h\Ya d\Uggcb h\YWUb[! |b| głm`YgUbX7cfa gcZa i glWh.fci [\ h.Y.gli XmcZWa dcgll|cbgzWa dcgYfgzlfYUlgYgz |bgffiaYbbgzUbXdYfZcfaUbWdfUMjWg"9lhbbgjjYigYcZfYWfX|b[gUbX``]ghb|b['

316 HightfmcZMigWI(3)S

DfYfYei |g|hY. A I G' %) "

G fj YmcZa i glWfca h\Y`U\Y6Ufcei Yhch\YdfYg\bhXUtik |h\ Ya d\Uglgcb h\YWUb[! |b| głm\ygUbXZcfa gcZa i gWNfci [\h\ygti XmcZWa dcglhcbgzWa dcg\fgzhfYUhg\gz |bgffi a YbhgžUbXdYfZcfa UbWdfUMjWg"9l hYbg|j Yi gYcZfYWfX|b[gUbX``]gHYb|b["

317. Fcfa UbXAbUngdg(2) F

DfYfYei |g|hY. A I G'8%&"

5 Wa dfY\Ybg|j Yghi XmcZg|b[Ya cj Ya YbhZcfa g XfUk b Zfca 'Uj Uf]YhmcZa i g|W' dYf]cXg"H\YU\]`|lmilc Uf|\W\'U\Ya i g|\W\]XYUg|b Vch\ cfU UbXk f|lh\b \Wbh\l lgk |``VY h\Ydf]a Ufm[cU cZh\]gWi fgY"

318 SYa | bUf | b Fcfa UbXAbUnglg(2) S

DfYfYei lglhY. A I G' %+"

5 gli XmcZglb[`YUbXa i `hl!a cj Ya Ybhk cf_gXfUk b Zfca Uj Uf[YhmcZa i glWf dYf]cXg" GYYMicbcZk cf_ggh X|YXk|``VY[i |XYX|bdUfhVndUfhVdUblg"H\YU\]|Imfc Ufh\W\'Uh' a i g|W/ |XYUg|b Vch\ cfU UbXk f|lhMb WbhM lgk |``h\Ydf|a Ufm| cU cZh\ |gWi fgY''

319 MUfW]b[BUbXTYWb]ei Yg(1) FÍ Ej Yb MUfg

5 Wa dfY\Ybg|j Yghi XmcZh\Ycf| Ub|nU|cbU UbX a i g|W hYWb|ei Yg Ya d`cmYX Vm l\YgWcc`a UfW|b| VUbXX|fYMtcfzhc |bWtXYUgt fj YmcZÚYXUbXglfYYhdfcWXi fYgz dfYMglcbXf]``z`\UZhlaYdUYUblfnzัUbXgliXmcZh\YfcillbYgUbXaiglWUX;cWhXVm

%'(

417. Of Ub PYXU c m(2) FÍ AgNYXXX

5 Wri fgYcZ|bgffi WijcbZcfcf[Uba UcfgcZLYj UbWXgUbX]b[žWbgXYf]b[1\ Ya Yl\cXg UbXa UYf]UgZcf YuW]b[cf[Ub"

418 Of Ub L]hhfUi fY(2) SÍ AgNYXXX

=bgfi Wjcb Zcf cf[Ub a Ucfg cZUXj UbWX gUbX]b[žWbg|XYf]b['h\Y `]hfUi fYZcf 'h\Y cf[Ub"

419 JcW/PYXU/c[m(2) FÍ AgNYXXX

7cbWdlg]b h\Yh\W]b[cZUdd`]YX; c]Wk]h\Ya d\Uglgcb h\YVY[]bb]b[gli XYbli

422 JcW/L]hfthifY(2) FÍ AgNYXXX

JcW/"|hfUi fYk |h, 'gc`c"|hfUi fYZcf`VY[]bb]b['gi XYblgUgk Y``UgWbWblfUlcb`cb`; Yfa Ub^]YXYfz fYbW'a Y g''

. A I G=7

%"*

495-67. IbXYdYbXYbhShi Xm(1-4) Ob DYa UbX

=bX]j]Xi U fYgYUfW i bXYf l\ Y[i]XUbWcZUZUW hma Ya VYffpt."

4989 SYa |bUf (1-3) Ob DYa UbX

Hc VY i gYX Uhl\ YX|gWMhcb cZh\ YXYdUfha Ybh'

5dd`]YX'Aig]W'

=bX|j]Xi U Udd`]YX'a i g|Wghi Xm|gcZZxfYX`]b U`h\YUfYUg`]ghXXYYck.

" 6Uggccb" CVcY Glf]b[g

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 7
 " < cfb"</td>
 DYfWgglcb
 Hi a c

 6
 " ; i |hf"
 D]lbc
 H WU

 9
 " : i hf"
 Ulcd\cbY
 Jc]W

OOO RYMPU AHNDXLDW

5 dUgg#ZU`zbcb!WYX]hWri fgYfYei]fYXcZU`a i g|Wa UcfgUbXa]bcfg"

121-2 221-2 C'UgP | Ubc (1) F, S SYei YbW

: cf i\ Ybcb!_Ym\cUXa i g\Wi Ucfglo dfcj]XYZ b\WicbU g_]`\gz]b\Wi X]b[\Ufa cb]n]b[\iotz lf\bglogb] \iotz \lambda d\bnib[\iotz]a dfcj]g\b[\iotz d\unib[\universet \minterprecess{\pi} \rightarrow \minterprecess{\pi} \righta

131. C'UggJc]W(1) S

%'+ 5 Wri fgYXYg[bYXZcfa i g]Wa U'cfgk \cgYUdd`]YXUfYU]gch\Yfh\Ubj c]W': i bXUa YblUg' cZX|Wijcb UbX'j cWi'dfcXi Wijcb k |``VY'gfYggYX"

Ga U``[fci d`]bgffi Wijcb Zcf h\YVY[]bb]b[[i]HLF]gf''A i gWYVX]b[g_]``gUYbchfYei]fYX'' Hcd]Wg`WcfX]b[žVUgfWd]W]b['dUHMfbgžVUgfWWcfX`fYUX]b['g_]``g''B chUdd`]WW`Yhc` A I G'a U'cf#a]bcf'

213 C'UggP]Ubc (1) PUgg/FU]`F

7ci fgYWbhbhlgh YgLa YUgA I G&/(žVi hcZMfYXcb UdUgg#ZU)`VUglg'

214 GfUXYXC`UggP|Ubc (1) F

: cf`bcb!a i glWa Ucfg'k |lh``]lhìYcf`bc`d]lbc`VVW[fci bX"9a d\Uglg'cb`fYUX]b[`g_]``g` UbXVUglWhWb|ei YbYYXYXZcf`Wi fWzWUggcca zUbX'dYfgcbU`Yb^cna Ybh'

325 C'UggP]Ubc (1) K Í Ej Yb MYUfg

: cf`_YmVcUX`a U`cfg`cb`milc`XYj Y`cd`Zl bWjcbU`g_]``g`g[\HfYUX]b[`z`\Ufa cb]n]b[`z` lfUbgdcg|b[`zUWva dUbnjb[`zUbX`]a dfcj]g|b["A YYjgHk]W`k YY_`n"

001I, 001K, 001J. Ncb-CfYX]hAdd`]YXMi g|WF, K, S, Si

=bXlj |Xi U`Udd`|XX^Yggcbg7cf`ghi XYblgk \cXcbchbYYX`cf`XYglfYi b|j YfglmMYX|h':cf` V|``|b[`difdcgyg1h.]gk.]```VYHYUHX`UgU%MYX|hWnifgYVYfYdYUHX''

\$\$% i VfUggëk ccXk |bXëgff]b[gëdYfWgg]cb'cf'[i]htf' \$\$% i d]Ubc'cf'cf[Ub' \$\$% i c|W

7cbWflgUfYdYfZcfa YXYUW gYa YgMf"FY\YUfgYgh\fYYha YgUk YY_"

155, 255, 355, 455, C\ La VYf EbgYa V Yg(1) AgNYYXYX

DYfZefa UbWcZ`]hYfUi fYZefj Uf]ci gWa V]bUl]cbgcZj c]WgUbX#cfjbyfi a YbhyWa ! dcgYXgdYNJÚW`mZefga U`Yf[fci dg"A YYhglk]WYUW k YY_"

165, 265, 365, 465 Ub]cb Ub]j YfglmHUbXVY`C\c]f (1) F, S

5 Xa |gg|cb VmU X|H|cb"H\YWc|fk]``f|b[`|hfUi fYZcf'!) cWU YgcZ9b[`]g\\UXVY`gë i g|b[j Uf|ci gf|b[]b[UXXUa d]b[hWb]ei YgUxXglYMU YZXMg"H\Y7\c]fk]``dYfZcfa]b Wi fWYgzgWcc`gzUx`cbWa di g"FY\YUfgUgUY\YX" 1]a Ygk YY_`m'

181, 281, 381, 481. PlUbc EbgYa VYg(1) F

Ca U`d]Ubc [fci dgcf[Ub]nYXZcf]bgffi Wijcb]bd`Unjb[aig]WZcfacfYh\UbcbYd]Ubc` ▶ Ugk Y`UgZcfd'Unjb[d]Ubc Xi YlgUbXlf]cg"A YYlglk]Wk YY_m'

ក្ត្ "191, 291, 391, 491. Ub]cb Ub]j Yfglm6]b[Yfg(1) F, K, S

DfYfYei |g|hY. A I G%S, fR&\ci fgLUbXgi WWggZi `U X|h|cb"

7cfYei |g|hY. A I G&S, ž' S, žcf (S, UgUddfcdf|UhYhc h\Yghi XYbhỹr Y) Y"

H\]gYbgYa V`YdYfZcfa gi bUWva dUb]YXUbXUWva dUb]YXWcfU`]lhfUi fYXfUk bZca j Uf]ci gdYf]cXgzghn`YgUbXW\`hi fU`VcX]YgcZfYdYflc]fY'`G]b[YfgdfYgYbhdYfZcfa UbWg UgdUfhcZUgdf]b[lici f`cZWi fWYgUbXgWcc`gzcWUglcbU`dYfZcfa UbWg]b`cWij Ybi YgUbXk |lh lh Y`zUWgcb`Gna d\cbmCfWYgffU'

230 AWWa dUbn|b[(1) S

5 Wwa dUbnjb['Ufngcb[žcdYfUjWtbX'cfUrcf]c gYYMjcbgžj Uf]ci g`]bgfi a YblU'k cf_g'

320, 420 OdYfUK cf_g\cd (1) F

DYZfa UWcZcdYUgWbYgUxUf]UgzcfcZZ ``cdYUg"A UMf]UgZcfdYZfa UWk]``` %'- VYWcgYbUWYfX]b[lclhYg_]``gUxUV]]llYgcZh\cgY]blhYWi fgY"

AIG

8YdUfhaYbh'cZ'D\mg]Wg 7c``Y[Y'cZ'5fhg'UbX'GW]YbWYg

: UW i `hm

KMYL. HUN WM f1%+(!, , ž%-(E"I blj YfglmDfcZYggcfcZD\ngdVgUbX8YdUfna Ybh7\Uff"6"C"UbX`D\"8"zI blj YfglmicZBcfh\`HM Ug/5XX]hjcbU`ghi XmzCU_`F]X[Y5ggcVJUhX`I blj YfglhYg"

DU JXA. KUXf1% - & % - - L"DfcZ/ggcf cZD\ngJVg26"G"UbX`A "5 "zī blj YfglmicZCci l\`: `cf]XU/D\ "8 "z̃B cfl\. '7Ufc`]bUGHJYI blj Yfglmi

7 iff]Wi`i a

%(\$

- di fgi YUhYUW]b[WdfYYf]bYYa YbHJfmcfgYWbXUfmgWcc
- Ybhr Yb[]bYyf]b[zcbYcZh\Y\YUh\dfcZ\gg|cbgzcfUbU`]YX\YUh\UYX/
- VYWa YUdfcZ/gg|cbU#]bXi glf]U'd\ng|V|gh/cf
- Wobljbi Ygli XmicZd\ng]WycfUfYUhXVUYXUhlh\Y[fUXiUhY`YjY"

I. MUcf]bP\nedVaj 38gYa Yehlf\cifg

- $5 \text{ "} D \text{ } \text{nglVg' \& \% \& \& \check{z} \& \& \check{z}' \& \check{z}' \% \check{z}' \% \check{z}' \& \check{z}' -) \text{ } \check{z}' \& \check{z}' \text{ } \check{z}' \& \check{z}' -) \text{ } \check{z}' \& \check{z}' \otimes \check{z}' \otimes \check{z}' -) \text{ } \check{z}' \otimes \check{z} \otimes \check{z}' \check{z}' \otimes \check{z}' \check{z}' \otimes \check{z}' \check{z}' \otimes \check{z}' \check$
- 6" DfYfYei]glHyg]bAUh. 8%728%28%2"% iA i ghYYUddfcj YXCdYMU Chi X]Yg

II. MUcf | b Eb | | bYYf | b | P\neg Vaj 73 gYa Yg Yf \ci fg

- 6" D< M& %z& &z' %/z' % z' %(z' &) z' (\$\$Í & \cifg
- 7" 9; F %%2%) ž&%5ž&) \$z\$&+\$z\$&+) ž& \$z*('z') &(\delta*cf'() \$\s\85) \cdot cf'(+\$\s\((-\)\%z\) (-, \(\left() \)\$\((-\)\)\$
- 8" 9; F#D< M&*&Í (\cifg
- 9" 9: F#D< M' *SÍ ' \ci fg
- : " 91 Ya dh'Zfca 'h\YfYei]fYa YbhcZUa]bcf

III. MUcf | b P\ng | W SV/MbW 148\cifg

- 5" 7\Ya |g|fmi9881%&z&88zZh\fYY\ci fg7<9YYMij YgÍ %\ci fg
- 7" 6]c`c[mĺ , ∖ci fg

IJ. M]bcf]bP\ngdVay 24gYaYgYaf\cifg

- J. TYUWYf L|Whogi fY|b P\ngg|Wg(GfUXYg7-12)
 - 5" 7ca d'YhYh YfYei |fYa Ybhgg\ck b UVcj YZcf h YD\ng|Wa Ucf"

G=7G

- 6" DfcZYgg|cbU 9Xi Wt]cb. 98 I %) \$\tilde{z}\$, \$\tilde{z}\$ &\tilde{z}\$ (% \tilde{z}(' ' \tilde{z})\tilde{z}) \$\tilde{z}\$ (% \tilde{z}(' ' \tilde{z})\tilde{z}) \$\tilde{z}\$ (% \tilde{z}(' ' \tilde{z})\tilde{z}) \$\tilde{z}\$ (% \tilde{z}(' ' \tilde{z})\tilde{z}) \$\tilde{z}(' ' \tilde{z})\$ (% \tilde{z}(' ' \tilde{z})\tilde{z}) \$\tilde{z}(' ' \tilde{z})\$ (% \tilde{z}(' \tilde{z})\tilde{z}) \$\tilde{z}(' ' \tilde{z})\$ (% \tilde{z}(' \tilde{z})\tilde{z}) \$\tilde{z}(' \tilde{z})\$ (% \tilde{z}(' \tilde{z})\tilde{z}) \$\tilde{z}(' ' \tilde{z})\$ (% \tilde{z}(' \tilde{z})\tilde{z}) \$\tilde{z}(' \tilde{z})\$ (% \tilde{z}(' \tilde{z})\tilde{z})\$ (% \tilde{z}(' \tilde{z})\tilde{z}) \$\tilde{z}(' \tilde{z})\$ (% \tilde{z}(' \tilde{z})\tilde{z})\$ (% \tilde{z}(' \tilde{z})\tilde{z}) \$\tilde{z}(' \tilde{z})\$ (% \tilde{z}(' \tilde{z})\tilde{z})\$ (% \tilde{z}(' \tilde{z})\tilde{z}(' \tilde{z})\tilde{z}(' \tilde{z})\tilde{z}(' \tilde{z})\$ (% \tilde{z}(' \tilde{z})\tilde{z}(' \tilde{z})\tilde{z}(' \tilde{z})\$ (% \tilde{z}(' \tilde{z})\tilde{z}(' \tilde{z})\tilde{z}(' \tilde{z})\tilde{z}(' \tilde{z})\$ (% \tilde{z}(' \tilde{z})\tilde{z}(' \tilde{z})\tilde{z}(' \tilde{z})\tilde{z}(' \tilde{z})\tild
- 7" 7ca d`YhYh\YUdd`]WWYdcfhlcbgcZh\YDfU |g="
- 8": cf UXX|h|cbU ||bZcfa U||cbžgYYh Y8||fYMrcf cZHMWYf 9Xi Wh|cb"

5ggYgg a Ybh'cZ'AU^cf

GhiXYbh'Cf[Ub]nUh]cbg

H\YScVMmcZP\ngVyShiXbbg(SPS) gla i `UhgUb Uk UfYbYggcZd\ngVyUbXh\Y fYUhX`gVMbWgzUbX`Uwi Ulbhg gli XYbhg k]h\ dfcZ/gglcbU`cddcfhi b]lifyg k]h\]b 'h\Y X]gVMb\YgzUbX`Uwi Ulbhg gli XYbhg k]h\ dfcZ/gglcbU]ga `UbX`df]XY]b 'h\Yd\ngVW`gVV\YbWgzUbX`Ugglgg gli XYbhg]b gli Xnjb[ždfYdUf]b[žUbX`dfYgYbh]b['h\Wb]W`a Uhf]U" A Ya VYfg\]d |gcdYb hc Ubnighi XYbh]bhYfyfhX`]b D\ngVy"

GhiXYbh'5 kUfXa

H\YP\ngl\gR\gYt\WAk\UX]g[]j Yb\nnh\YZW\mcZh\Y8\dUha\Yb\cZD\ngl\ghc\frac{1}{2}h\Yght\Xbhk\cdf\gybhg\h\Y\ydif\gy\U\dU\frac{1}{2}h\Yght\Yh\Yf\gy\U\a\text{a i gh\\U}\Y\Yb\Ucf\[][]bU k cf_Uxa i gh\Ydf\gybh\XUhUg\U\zf\[] []cbUzcf bUhcbU dfcZ\gg|cbU a Y\hlb[] df|cf hc h\Y[] fUxi Uhcb"

H\Y**FfYg\a Ub P\ngdWgAk UX**]g'[]j Yb'hc'h\YZYg\a Ub'ghi XYbh'Wa d'Yh]b['D< M & %& &k \c'\Ug'g\ck b'ci hgHbX]b['gWc'Ugh]WW]Yj Ya Ybhz 7\f]gh]Ub'gYfj]WE'UbX'gWcc``gd]f]h'

$7cifgY'CZZYf]b[g']b'D\mg]Wg'flD<ML$

flL< ci fg7fYX]h/: !: U`/K !K]bhMf/QlCdf]b[/G !G a a Yf

%(%

111. Pf]bV/d`YgcZh\YP\ngdW\SV/YbV\rg(4) F, K, S, Si

U gž ž

424. P\ng/W(RYgYUfW(1-3)S

DfYfYei lglhY. D< M' %%'

H\Yghi XYbhir bck `YXI Y|g|bhi fUhXX\mildd`|WhcbcZUg|a d`Yd|YWcZcf|| |bU k cf hc |bW XYU |lhfUh fYgYUWUbXg a a UmdUdYcbUhcd|WcZWffYbh|bhfYgh|bd\ng|W I bXYf h Yg dYfj |g|cb cZUZW/ hna Ya VYfžh |gk cf_ a UniVYXcbYcZZg|hYUhUbUlcbU `WcfUrcfmcf Wa dUfWYfYgYUfW ZWY]hn'i

430 EldYfla YbhU P\ngl\yLUVcfUcfm(3) FÍ Ej Yb MYUfg

DfYfYei |g|hY. D< M' %%/ 'A 5H'&%"

A cXYfb Y1 dYf|a YbHUtcbžfYgYUFWžXUUUWi |g|t|cb UbX UbUng|g|'H\Yi\YcfnzidfUM|W UbX fYdcfflb[cZfYgYUW |b UgWybl|ÚWzcfa Un|g XYa cbgffUYX l\ fci [\ Yl dYf]a Yblg |b'Urca |Wabi WYUFzgc`|X'gHUHzh\Yfa cXnbUa |WazUbX'cdHWg"CbY`YWnffYz(``UV`\ci fg# k YY_"

498 SYa | bUf (1-3) S

DfYfYei]g|hY. && \ci fg`cZd\ng|Vg'UbX''i b|cf#gYb|cf`gHLbX|b[" G_]``g|bˈg\MbhlÚWUbXˈhWWb|WvˈdfYg\bhUlcbezk f|lhhb UbXcfUžk]``VYdc`]g\YX"H: VY 😈 i gYX`Uhl\ YX|gMM|cb`cZh\ YXYdUfha YbhZcf`a U`cfg#a |bcfg`cb`n'i

180280380480 Shi XmAVfcUXPfc[fUa g(1-4) AgNYXXX

5 ``Wri fgYgUbX1\.YlfUdd`|WHcbaighvYXYÚbYXUbXUddfcjYXdf]cf1c1fUjY"

19567. SdYMU Shi XJYg(1-4) Ob DYa UbX

@ck Yf! Yj Y [fci d gli X]Ygk \]W Xc bchUddYUf]b h\YfY[i `U XYdUfha YbHJ cZZYf]b[g"

39567. SdYMU Shi X|Yg(1-4) Ob DYa UbX

I ddYf! Y, Y [fci d gli X]Ygk \]W Xc bchUddYU |b h YfY] i 'Uf XYdUha YbHJ cZYf]b[g" %('

49567. IbXYdYbXYbhShi Xm(1-4) Ob DYa UbX

=bX|j |Xi U ghi Xmii bXYf h\Y [i |XUbWcZUZUW\`hma Ya VYffgt".

4989 SYa]bUf (1-3) AgNYXXX

H: VYi gYX'Uhh YX|gMMhcb cZh YXYdUfha Ybh'

AW5ZYY'GW\cc`'cZ'6 i g]bYgg'5X a]b]ghfUh]cb

8YUb

R. KYIN AVg\Yf f88\$(1:8 YLb cZh\YA WJZYYCWcc`cZ6i glbYgg 5 Xa]b]gffUlcb UbX DfcZ/ggcfcZAUf_Yfjb["6"5"UbXA"6"5"z5UWgcbj]``YCHLYIb]jYfglm/A"5"GZIb]jYfglmi cZ5 `UVLa U< i blgj | ``Y/D\ "8 "žI b]j YfglmcZ5f_UbgUg"

A | gg|cb GhUhY a Ybh

H: dfcj |XYUei U]|mii bXYf[fUXi UY:Vi g|bYgg YXi Wh]cb k |h\]b U7\f]gh]Ub WbhM hž

- Dfcj JXYUb JbhM fUhX_bck `YX[Y!VUgYUMcggX]gMd`]bYg
- @cWhYbYk cddcfhi b]h]YgZcf [fck h\
- =bhy fuhrzuh ubx Yufb|b| |b Y YfmWugfcca
- 9g/LV]g\ a i h U`mVYbYÚYJU fYUIJcbg\]dgk]h\ h\YVi glbYggVva a i b]lm"

%((

IJ. M]bcf]b MUbU Ya Ybh 18\ci fg

5 "A; H'% ž'(% ž'(, /A 5H% (6" I ddYf @Yj Y A; H9 YM hjj Yg

J. M]bcf]b MUbU Ya YbhZcf Ncb-Bi g|bYggPfcZYgg|cbUgi 21\ci fg

5"577'8%%UbX'97: '8%%

6" A; H' % ž' (, /A? H' & /97: '(%)

7" I ddYf! Yj Y 6i glbYgg YYMljj YÍ '\ci fg

JI. M]bcf]bMUf_YI]b[Í 18\ci fg

7c i fgY'CZZYf]b [g']b'5WWc i bh]b ['fl577 ξ

flk< ci fg7fYX]h': !: U`/K !K]bhhf/GlCdf]b[/Gi !Gi a a Yf

211. Pf]bV/d`YgcZAWvi bl]b[I (3) F

5 b']blfcXi WicfmWri fgY]bWi X]b['ghi XmcZdfcZYgg]cbU'UWvi bl]b[zgc`Ydfcdf]Yhcfg\]dgz UbX'dUfbYfg\]dg'

212 Pf]bV/d`YgcZAWvi bl;b[II (3) F, S

DfYfYei]glhY.577 88%

414 Ai X|H|b[II (3) F, SÍ Ej Yb MYUFg DfYfYei]g|HY. 577 (%" 5 b UXj UbWX Wri fgY]b U X|H|b[žUdd`m|b[WrbWdhg'UbX'HWVb]ei Yg'a UgHYfYX]b 577

]ghcUW]Yj Y`cb[!hYfa Wkd]hU`[fck h\ Vm]bj Ygh]b[]b`a Uf_YhUVYI "G"Wa a cb`ghcWg" 7ci fgYa UmVYfYdYUhXXcfUa U]a i a `cZ* \ci fgWhX]h'

411. Ibh/fa YXJUYMU\(\)icY\(\)bca]\(\)i(3) S

DfYfYei]glhYg 97: 88%UbX'8%&"

340 SdcfhMUf_Yllb[(3) S

DfYfYei |g|hY.A?H'&"FYYNdfcWYWYX|hD9KG'(\$"

6UgWa Uf Yhlb[WbWddlg]bh\Ygdcflg]bXi gffm: i bXUa YblU hWblei YgcZLXi Yfhglb[ž gUYgždfca chlcbžZ bXlfUgb | žUbX ci fbU | ga k | ``VYY d`cfYX | b fYU | cb kc gdcflg"

341. SdcfhIbZcfa Ulcb MUbU Ya Ybh(3) S

DfYfYei |ghY.7CA %&\$UbXA?H'& "FYYNdfcW/WfYXhD9KG' (%' GYYD9K G' (%Zcf Wvi fgYXYgWi)dhcb"

350 PfcZ/gg|cbU SY`|b| (3) S

DfYfYei lglhY. A? H' & "

H\Yfc\YcZh\YgUYgdfcZYgglcbU k |h\|b h\Ya Uf_Yhb| dfcWgg"9a d\Uglg cb XY Y! cda YbhcZgY`]b['fYgdcbg]V|`]lfYgžlfa YUbX'hYff]lcfma UbU Ya YbhžUbX']bhYfdYfgcbU' 19::0:@OO> Waaib]Whobg]``gh\fci[\fc`Y!d`Ung"=bWiXYgUbUnglgcZh\YdgnWc`c[]WiVUglg cZgY`]b[]b Vch\ Wbgi a Yf UbX`]bXi gff]U a Uf_Yhg"

351. RYIU`MUF_YIIb[(3) F

DfYfYei lglhY. A? H' & "

9l Ua |bUHcb cZh Ya Uf_YHb[a |l k |lh |b h YfYlU` Ybj |fcba Ybh 5 bUnglg cZfYlU` głfuły milb a yfwuxiglbi zwyca yf fyulcbozux lbi ybłofmwblife`"9j Ui ulcb cZ fYhU\`ghY`cWhcbgUbX'ghcfY`Unci hg"

419 AXi Yfflgb[MUbU Ya Ybh(3) F, S

DfYfYei]g|hY. 'A? H' & "FYYJdfcW/ VfYX|h. '7CA' (%"

H\YYWbca |WUbXgcV|U fc`YgcZUXj YfHgb| |b WobhYa dcfUfmVi glbYgg''9a d\Uglgcb' WMUHcbž|a d`Ya YbhUhcbžUbXY| Ui Uhcb cZWa dU|[bgh\fci [\h\YUbUng]gcZWMUH]Y dfcWgygža YX|UfYgci fWgžVi X| YHb| žUbXgcVIU fYgdcbg|V|`|hn'i

424 MU_YIIb[RYgYUW (3) F

DfYfYei lglhY. A? H' & UbX'A 5H% ("

% 7 h

j

%)'

9" I ddYf@Yj Y`6i g|bYgg9`YWljj YgÍ *\ci fg `J=" A]bcffYei]fYa Ybhg`bcbY

5ggYgg a Ybh cz AU cfg

DfcÚŊNbWi]b UWvi bhlb[žYWbca]\WztÚbUbWza UbU Ya Yblza Uf_Yhlb[žei UbhlHlhj Y WbWdlgzUbXlh Ylf]bhlf fUlcb k]``VYUgygyXlh fci [\lh Y9HGA Ucf:]YXhlgh"9UW gi XYbhdi fgi]b[U6C65 XY[fYYk]``VYfYei]fYXhc HU_Ylh]ghlgh]b'A; H(() "

8 Ya cbgffUYXU) `]hmhc UggYggUbXUbUmnYXUUUbX`ch\ Yf`dYfl]bYbh]bZcfa Ul]cb`hc` [XYbh]ZmUbXfYgc`j Ya UbU Yf]U dfcVYa gk]``VYYj Ui UYXVUgYX`cb`ghi XYbhgfgi WYgg! Zi `Wa d`Yh]cb`cZh\ YWddghcbYWri fgYZA; H(()"

7cifgY'CZZYf]b[g

7ci fgYCZZYf]b[gZcfh\YDD5dUfU`Yh\cgY]bh\YlfUX]h]cbUdfc[fUagcZh\YAW5ZY GWcc``cZ6i glbYggUgXYhU]`YXUVcj Y'

5Xi'h'GhiXlYa

6UW\Y`cf'cZ'GW]YbWY']b'Cf[Ub]nUh]cbU`'@YUXYfg\]d

Dfc[fUa'@YUXYfq\]d

BUYUFUFTFIFTH - L''8 FYWACF CZIN Y LAUNCH DEC FUA Z7\UF CZIN Y8 YdUfa YbhcZ 7cbhbi |b| 'Gri X|Yg'UbX5ggcVVUhYDfcZYggcf"6"5"zi b|j YfglhncZA |W|| Ubz5bb5fVcfz/ A "6"5 "z̃FcVYfHA cff]g·7c``Y| Y/9X'8 "'7UbX|XUYz̃I b]j YfglmcZA Ya d\]g'

H\YA W5ZYYGWcc`cZ6i glbYgg5Xa |b|glfUlcbcZZYfgl\Y@YUXYfg\]dZcf5Xi`hI b! XYf[fUXiUY7c\cflpzLAUNCHZXY[fYY!Wad'Yh]cbdfc[fUa"H\YDfc[fUa]gU U]'UVY k]h Yh Yf U; Yb Yf U 9a d \ Uggcf U 5 ``] YX < YU h 9a d \ Ugg]b h Y6UWY cf c ZCMYbW =]b Cf[Ub]nUlcbU @YUXYfg\]d XY[fYY"H\YWa d YhYXYgViJdlicb cZh\Ydfc[fUa UbX . • Wolfundozcfa Ułcobžjo UXXIIIco lic jligUXa jegjco UbXUNIXYa jWYei jfYa YoligUY cWlYX ö |b h Y "7 cbhbi |b| Chi X|Yg 8 YdU ha Ybh gYMicb cZh Y Catalogue"

7c"Y[Y'cZ'9XiWUh]cb'UbX'<iaUb'GhiX]Yg

:UWi`hm

T\ca UgR. RcgYVfci [\f\%-*L"8YUb`cZh\Y7c``Y[YcZ9Xi Wh]cb`UbX<ia Ub`Gi X]Yg`UbXDfcZYggcf`cZ9Xi Wh]cb"6"5"žA "5"žUbXD\'8"žC\]c G'UhYT b]j Yfglm'i

Abb S]b[`Yhcbfl%,) E"5 ggcVJUY8 YUb cZ9Xi WHcbUX5 ggcVJUYDfcZ/ggcf cZCdYVJU`9Xi WHcb"6"GZi b]cb I b]j YfglmrA "9X"UbX9X'8 "Zi b]j YfglmcZA Ya d\]g"

DchijYMnthif% - (L'5 gglgtbh8 Ytb Zcf HWWYf 9Xi Whlcb tbX5 WYX]hUlcb tbX5 ggc WlUh'DfcZ/ggcf cZ9Xi Whlcb" 6"Gz@ta Vi h\ I blj Yfglmr(A "9X"zI blcb I blj Yfglmr(9X"8 "z I blj YfglmrcZA Ya d\]g"

H\Y7c``Y[YcZ9Xi Wh]cbUbX< i a UbChi X]Yg\ci gYgUfYUhj YmXlj YfgY[fci d]b[cZUWXYa]VX]gVhd`]bYgž]bWi X]b[h\YCWcc`cZ9Xi Wh]cbUbXh\Y8YdUfha YbhgcZCcVhU`K cf_žCcVhC`c[mUbX:Ua]mChi X]YgžDgnWc`c[nžD\ng]Wi 9Xi Wh]cb!K Y`bYgglCdcfh

GW\cc``cZ'9XiWUh]cb

7c"Y[Y'cZ'9XiWUh]cb'UbX'<iaUb'GhiX]Yq

: UW i `hm

AbbS]b[`Yncbf%,) L'5ggcVLLY8YLbcZ9Xi WL]cbUbX5ggcVLLYDfcZVggcfcZCdYV[U` 9Xi Whcb"6'GzI blcb1 blj YfglmrA '9X"UbX'9X'8 'zI blj YfglmcZA Ya d\lg'

9X'8 'žI blj YfglmcZA Ya d\lg'

M]WYYK. Ah.]bgf%-, E"5 ggcWUhYDfcZ/ggcfcZ9Xi Wh]cbUbX8]fYWhffcZh\Y9X'G" •• UbX9X"8"fD!%HzzUWgcb"6"GzI b]cb1 b]j Yfg|lm/A "9X"UbXD\"8"zI b]j Yfg|lmcZA Ya! d∖]g"

MY]bXUC`U_YfR\$\$\$L"5 ggjglbhDfcZ/ggcf cZ9Xi Wljcb UbX8]fYWlcf cZl\\Y7YbhYfZcf 9Xi WHcbU DfWMW 6"5 "z@la Vi l\ I b]j Yfglma'A "9X"zlbX9X'8 "zJlbXYfV] h'

AbbUC`|ZZcfXf% - %L"5 gg|gl.bhDfcZ/ggcf`cZ9Uf`m7\|`X\ccX'9Xi Wh|cb"6'G"UbXA "G"z I b|j Yfg|mcZHIbbYggYYUiA Uft|b/5 XX|lt|cbU gli XnžA cbHyggcf|žCli B |Wc Ug A cbHyg gcf] 7YblfYz@cbXcb"

NUbWkiM. EUg Ymif%-, Ł"5 ggcVJUhY DfcZYggcf UbX'8]fYMicf cZh\YA "9X"z; Yfa Ublck b" 6"5 "žH]b|lmI b|j Yfg|lm/A "9X"žHM Ug 5 / A I b|j Yfg|lm/9X"8 "žI b|j Yfg|lmcZA Ya! $d \mid g'$

C\U^YgA. Fck `Yff%-) E'5 ggc\ULYDfcZ\ggcf cZ9Xi Whlcb UbX G\b|cf J |WDf\g|XYbh Zcf I blj YfglmFYUlcbg" 6"A "žI blcb I blj Yfglm7 A "7"A "žB Yk "Cf YUbg H\Yc`c[]Wb" %) -GYa |bUfm'D\ '8 'zA |gg|gg|dd| GLHYI b|j Yfg|m'i

JYbb|ZYf Gfcj Yf%--E"5 gglgHbhDfcZ/ggcf cZ9Xi WHcb UbX8 |fYWfcf cZh\YA "5"9X"Z ; Yfa Ublick b"6"G"UbXA "9X"zA |gglggldd| GUYYI b|j Yfglmx'9X"8 "zī b|j YfglmicZA Ya! $d \mid g'$

RUd\ LY; YfYthif% - +Ł"DfcZYggcfcZGdYVJU 9Xi Wt]cbUbX5VkJb[8]fYvkicfcZt\ YA "9X"z ^UWgcb"'6'G"A]XX`YHMbbYggYYGLUYI b]j Yfg|lmrA "5 "ZA "GZD\ "8 "ZJ UbXYfV]`hI b]j Yf! glm

MYYgglUE. MUh. |gf%-, L"=bgfi WofcZ9Xi Wh|cbUbX8 |fYWhcfcZ7`|b|Wr9l dYf|YbWg" 6'GžI bli YfglmcZ5 'UVLa U'A '9X'žI bli YfglmcZA Ya d\lg'

KYbbYth NYk a Ub fR\$\$%L"5 ggcVVLHYDfcZ/ggcf cZ9Xi WHcbU @YUXYfg\ |d UbX'8 |fYWhcf cZh,YA "5 "9X"z\Wgcb" 6"5 "zI b|cb I b|j Yfg|lm/A "9X"zA "5 "zUbX'9X"8 "zI b|j Yfg|lmcZ A Ya $d \mid g'$

T\ca UgR. RegYVfci [\f%-*E'DfcZ/ggcfcZ9Xi Wh]cbUbX8YUbcZh\Y7c``Y[YcZ9Xi! Which UbX < i a Ub Chi X|Yg" 6"5 "zA "5 "zUbXD\"8 "zC\]c ChUhYI b|j Yfg|hm

RUXn6\UXvi fbf8\$\$8L"5 ggc\ULYDfcZ/ggcfcZ9Xi Wl-lcbU@YUXYfg\]dž8]fYWicfcZh\Y 9X'G"UbX9X'8"fD!%&E; Yfa Ublok b'UbX91 YWltjj Y8]fYWlcf cZ; Yfa Ublok b'7Ua di g" 6"Gz: fyyx!< Ufxya Ub I b]j YfglmrA "9X"UbXD\"8 "zī b]j YfglmcZA [gg]gg[dd]"

CUa]``Y SYLFWhff% - ' !'' 5 ggcV|LH? DfcZ/ggcf 'cZ9Xi WLf|cb" 6"G"Z@LbY 7 c``Y| Y/A "9X"Z I blj YfglmcZA Ya d\lg/D\"8 "žCci h\Yfb=`\lbc\gI blj Yfglm"

E]nUYh JU [\b-NYYnf8\$\$8."5 ggc\/UhYDfcZ/ggcf cZ9Xi Wh]cb"6"5 "\centilde GnfUWgYI b]! j Yfglm/A "9X"žI blj YfglmcZCfY cb/D\"8 "žCfY cb GLHYI blj Yfglm"

IJ. M|bcf|bPfcZYgg|cbUEXiWh]cbTU|`cfYXZcfTYUWYfL|WhgifY

- 5" 9 Ya Ybłufm?!*Í (- \ci fg
 - %' 98I % \$\tilde{z}\ \\ \tilde{z}\ \\ \tilde{z}' \) \(\tilde{z}' \) \(\tilde{z
 - &" 5FH')+žAIG'), žD9KG')-
- 6" 9Uf m7\]'X\ccX'DfY?!' () &cf')) \ci fg
 - %' 98 I % \$\tilde{z}\ \tilde{z}\ \tilde{z}' (\tilde{z}' (\tilde{z}') \tilde{z}') \tilde{z}')' \tilde{z}')(\tilde{z}') \tilde{z}') \tilde{z}') (\tilde{z}') \tilde{z}') (\tilde{z}') \tilde{z}') \tilde{z}') \tilde{z}') (\tilde{z}') \tilde{z}') \tilde{z}'
 - &" D9K G&&cf FYX7fcgg:]fgh5]Xk]h\ UXi `hžW]`X/ `]bZlbh7DF
 - ' "' D9K G") -
- 7" A]XXY; fUXYg(!, Í ', \ci fg
 - 98I '%) \$\tilde{z}\&' \tilde{z}\& \\$\tilde{z}' \& \tilde{z}') (\tilde{z}')) \tilde{z}') *\tilde{z}(' &
- 8" GdYMU 9Xi WhlcbÍ '&cf") \cifg
 - %' 981 % \$\tilde{z}\ \tilde{z}\ \
 - &" D9K G'&&cf FYX'7fcgg: |fgh5 |X'k |h 5 Xi hž7\|Xz=bZlbh7DF
- J. RYei | fYa Yblg Zcf GYbYfU CcfY UX B.S. CcfY UY HJ`cfYX Zcf | b| lifU lifUWYf `]Wbgi fY. SYYnni f UYj | gcf Zcf XYHJ`g

5ggYgg a Ybh cz AU^cfg

5 Xa |gg|cb hc UbXWbh|bi UbW|b h YHMWYf 9Xi Wh|cb DfYc[fUa UbXh YDF 5 L=G" ="Yl Ua |bUh|cb UY|bhfY| U dUhg cZh YUggYgga YbhcZ9Xi Wh|cb a Ucfg"

Gh i XYbh Cf [Ub]nUh]cb

KUJdUDY JUP],]bhfbUjcbU < cbcf CcVMmjb 9Xi Whjcbž|gXYX]WhXhc gWc`Ufg\]d`UbX`H W`YbW]b YXi Whjcb"

T\YSh XYbhTYbbYggYYEXi Whjcb AggcYkUjcb]gWa dcgYXcZgh XYbhgcb h\YWa! di gk \c UYdfYdU]b[hc h\UW"=\gdi fdcgY]ghc cZXf]lga Ya VYfgU`h\Ycddcfh b]hJYgzfYgdcbglV]hJYgzUbXdfj]`Y[YgcZh\YB U]cbU 9Xi Wh]cb 5 ggc\JUJcb UbXh\YH\bbYggYY 9Xi Wh]cb 5 ggc\JUJcb UbXhc Uwi UbhZ hi fYh\UWYfgk]h\h\Y\]gdcfnzYh]\WgUbXdfc! [fUa cZh\Ycf[Ub]nYXh\UW]b['dfcZ\gg|cb"

%*%

GhiXYbh'5kUfXg

H\YNcfUSa Jh BU_Yf Sh XybhTYUWY cZh YMUF Ak UX]g dfYgYbhYx hc h\Ui gi XYbhk\cz]b h\Y1 X| a YbhcZh\Y8 YdUha YbhcZ9Xi Wh]cbz\Ug XYa cbgfUhX hc h\Y\][\YghXM fYY]b Vch h\YW^Y[YUbX'dfYdUUcfmWLggfcca gh\cgYg_]``gUbXUh lf]V hYg\XY hc VYWUUMMf]gl]WcZci lgHbX]b[Wfl]UYX WLggfcca 'hWWYfgUbX'k\c' g\ck g[fYUhghdfca]gYcZUW]Yj]b[h\]ggfUh g]b mYUfghc Wa Y'5 b Uk UfX]g[]j Yb hc cbYgh XYbhWfh]Znjb[hc hYW?!, zcbYhc; fUXYg+!%&UbXcbYhc h\Ygh XYbh]b CdYMU 9Xi Wh]cb"

7cifgY'CZZYf]b[g']b'9XiWUh]cb'fl981Ł

flE< ci fg7fYX|h/: !: U`/K !K |bhhf/GGdf|b[/Gi !Gi a a Yf'

K]h h Y MullicbgcZ98 I % \$z\&' z\& \$z\UxC9*&\ z\U`YX` Whicb UxzglY\U`YX` ! Whicb Wri fgYg\U YUgUdfYfYei |g|hYUXa |gg|cb hc h Y H\UWYf 9X` Whicb Dfc[fUa fH9DE" 5 ```Wri fgYgk]h `UYX`YI dYf]YbW`UbX`YUW`Yb\UbWX`gh XYbhihYUW]b[`Wri fgYfYei]fY dfccZcZ`]U\]]hni]bgi fUbW'

150 Fci bXLljcbgcZAa Yf]Wb EXi Wljcb (2) F, K, S

< jgfcf]Wržd\]`cgcd\]WržtbXgcVjtc`c[]WrVtgYgi bXYf`njb[1\xXYj Ycda YbhcZ5 a Yf]Wb`YXi Wr]cbU']bgf]h YfcYcZh,YgWcc`gžUja gcZYXi Wr]cbžtbXfc`YcZgtUhz``cWržtbXZXXYfU'U, YbVJYgk]```VYYa d\UgjnYX''88!\ci f`UYXYI dYf]YbWrfYei]fYX''

233 PYfgcbU Qi U]lflYgcZFZZXMjj YTYUWYfg(1) F, S

5 b Yl d`cfU-jcb'cZdYfgcbU'ei U]l-jYgcZYZZYMjj Yl-MWYfgl\\fci [\UÚYXYl dYf]YbWUbX` [fci d'X]gMygdcb"

%*&

250 Iberli Wilch TYWbc'c mib h YC'Uzercca (2) F, K, S, Si

DfYfYei |g|hY. 7G7 %\$) "

5 Wi fgYXYg|| bYX hc a YYnglUY |bgfi WicbU hYWbc c| mgUbXUXg'' 9a d\Uglg |g cb' Wa di hhf U X|cži |XYcžUbXcdhWhWbc`c[mUg]h|gi gYX]b h YWUgfcca "

o y Ycda YbhcZfYLX]b[g_]``g]b WbhbhhtYlgk]h Ya d\Uggcb h\Ygi Xmg_]``gi gYX

o j Ycda YbhcZfYLX]b[g_]``g]b WbhbhtYlgk]h Ya d\Uggcb h\Ygi Xmg_]``gi gYX

lb a]XXYUbXgYWbXUfmgWcc`dfc[fUa g'FYei]fYg&) WcW_\ci fgcZWUggfcca k cf_
i bXYf h\Yg dYfj]gcb cZh\YWUggfcca 'hWWYf UbX'UW``Y[Yg dYfj]gcf"FYei]fVY---gYWbXUfmYXi Wh]cb gh XYblg"

EUfmC\]`X\ccXIb-le YF

Cci fg/gI-J I (351-356) ZcWgUtthblicb cb th Yibhi fUlcb cZttWbc c mLbXch Yf Wffybh |sei YezidfcVYa gUbX'dfUMjWg |b h\YÚYX"7i ffYbh|sei YezidfcVYa gUbX'dfUMjWg h\Ui k | ``VY]bW XYXUY`YUfb]b[gmiYdfYZYfYbWgz]bW glcbzbUllcbU glLbXUfXgzX]j Yfglmz UbX`ZUJI\\ UbX`YI\\ [Vg''CcfYei |g|Hng||bWi XYU%)!\ci f UYX`YI dYf|YbWrUhi\\ YdfYgWi[VYX` `Yj Y"5``WIfmi

8 I 7 5H-CB

356 Ibg/fi WijcbU DYg[bJI(4)F,S

DfYfYei]g|hY. 98I ")' UbX") (UbXH9D5 Xa]gg|cb"7cfYei]g|hY. 98I ")) "
8 Yg[b UbX]a d Ya YbHJqcb cZ]bgfi Wqcb]b a]XXY gWcc ``k]h UhYbhqcb hc h Y

421. TYUW|b| HYU'h UbXP\ng|W EXi Wheb |b h YSYWbXLfmSWcc \ (3) F, S

5 Wi fgYhc dfYdUYh\Ygh XYbhlc Wffmci hl\Y\YUh\ UbXd\ng\W YXi Whlcb dfc[fUa Uhl\YgWVbXUmYj Y"FYei |fYg&) WcW\ci fgcZWUzgfcca k cf_i bXYfl\Yg dYfj |glcb cZh\YWUgfcca 'h\UWYf'UbXUW\`Y| Ygi dYfj |gcf''

5 gli XmcZdf|bWd`YgzdfWNWgzUbXa Yl\cXgcZhVW|b| a cXYfb^Ub| i U Yg|bgWvbXUfm gWcc`"FYei |fYg&) WcW\ci fgcZWUbgfcca k cf_ i bXYf h\Ygi dYfj |g|cb cZh\YWUbgl fcca "MUWYf UbX'UW" Y| Ygi dYfj |gcf"|b k c "Ub[i U Y "UvcfUcf]Yg cf Ub Yei |j UYbh Uddfcj YXYI dYf]YbW'FYei |fYgX|ZXfYbh`Y| YgcZ|bdfi Wlcb |b h\YgLa Y`Ub| i U Ycf]bgffi Wqcb]b lk c ``Ub[i U Yg''

424 TYUW|b| Mi g|W|b SYWbXLfm&Wcc` (3) F

DfYfYei lglhY. 98 I " & UbXH9D 5 Xa lgglcb"

A Yh\cXgUbXa UYf]UgZcf h\cgYk \cd`Ub hc hYUW di V]VgWcc`a i gWUbX]bgfii a YbHU a i glWb a [XXYUbX\][\gWcc`"FYei]fYg&) WcW\ci fgcZWLggfcca k cf_i bXYf h\Y gi dYfj |g|cb cZh\YWUgfcca hYUWYf UbXUW^`Y| Ygi dYfj |gcf''

425 TYUW]b[ScVIU Shi X|Yg]b SYWbXLfm6Wcc`(3) F

A Unif[UgUbXa Yh\cXgZcf hvW]b[gcWU ghi X[Yg"F Yei]fYg8) WcW\ci fgcZWUgfcca k cf_i bXYf l\Yg dYfj]g|cb cZl\YWLggfcca lYUWYf UbXUW``Y| Yg dYfj |gcf"

426 TYUW|b| SdYYW UbXT\YUfYAflg(3) K

DfYfYei lgllY 98 I " & UbXH9D5 Xa lgglcb"

A UNIFJUgUbXa Yh\cXgZcf MVW]b[gdYYW/ h\YUIYYUI'ng"FYei]fYg&) WcW\ci fgcZWUgg fcca k.cf_i bXYf hYg dYfj |g|cb cZhYWUgfcca hYUWYf UbXUW^Y| Yg dYfj |gcf"

430 Eb\UbWXSli XYbHYUW|b| /El hYbXYXF|YXEl dYf|YbW|b EUfnC\] X\ccX(14)

DfYfYei]ghY. 5 Xa]gg|cb hc ghi XYbhhYUW|b["DUgg#: U\`" 5 gya Yghhfz%cKghYXggcZghiXXhMhhWW|b[k|hh ZAZI:XUmgindhyfid]qXXYldYf|YbWkcf_|b[:,]cb"A k |h\ |bZbhgUbXnci b| W|`XfYb |b YUf`mW|`X\ccXgYhhb|g"Bcch\Yf Wi fgYgaUmVY

19567. SdYMU Shi XJYg(1-4) Ob DYa UbX

@ck Yf! Yj Y [fci d'ghi XjYgk \]W Xc bchUddYU]b h\YfY[i `U XYdUha YbhU cZZYf]b[g'

39567. SdYVJU Shi XJYg(1-4) Ob DYa UbX

I ddYf! Yj Y [fci d'gh X]Ygk \]W Xc bchUddYU]b h YfY[i 'U XYdUha YbhU cZZYf]b[g'

495-67. IbXYdYbXYbhShi Xm(1-4) Ob DYa UbX

=bX]j]Xi U fYgYUfW i bXYf h\Y[i]XUbWcZUZUW`hnia Ya VYffQL"

4989 SYa |bUf (1-4) Ob DYa UbX

Hc VY i gYX Unih YX gWMhlcb cZh YXYdUfha Ybh'

- &" A |b|a i a; D5 cZ&) |b U`Wi fgYk cf_ Uhl b|cb l b|j Yfg|m
- '"=bhYfj |Yk k |h\h\YHYUWYf9XiWhlcbCWYYb|b[7caa|hhYY
- (": |YXY| dYf|YbW||bYXi Wh|cbUh|\YUddfcdf|UY| fUXY`Y| Y/ÚYXY| dYf|YbW UNG IFYXIN fci [\hfUbgZH WYX]ha i ghVYj Yf]UYXk ||h UWi fgYXYgW]dHcb cf gm``Uvi g |bX|Wvh|b| h\YhcHU`\ci fg Wva d`YhYXUbXh\Yd`UWa Ybh'
-)" QUHgZUMcfmgWcfYgcb h\YDDCHfFYUX|b[1%(žA U\\ 1%' žK f|h|b[1%' Hžcf 5 7H f17ca dcglhYcZ&&MzcfC5HfFLf17ca VlbYXgWfYcZ%\$&\$L"
- *" 5 ddfci U cZh Y9Xi Whcb 8 YdUfha Ybh'
- +" 5 ddfcj U cZh YHUWYf 9Xi Whcb 7ca a llhyy"

Add`|Whleb he h\YTEP"98I %) Sz: ei bXUlebgeZ5a Yf|Wb 9Xi Whlebzg\ei XVY 🕰 HU Yb Xi f|b| 1\text{h YgYwbXgYa YgHf cZh YZYg\a Ub mYU cf Xi f|b| 1\text{h YÚfghgYa YgHf UZHf YldYf]YbWf|bUbUddfcj YXgYHi|b[|gUgcWa d`YHX"6nWa d`YH|b[h\YUXa |gg|cbdfcWgg: YUFmlbthYWFY YWYYYfzUghi XYbhlgUVYhcHU YWri fgYgthUnfYei |fYUXa |gg|cbhcthY H9Dk\Yb h\YmUYcZXYYX"5 ghi XYbhk\c\UghtUgXYfYXh\YYei li UYbhcZ98I % S ┺ g\ci `X`a U_YUdd`]WHcb hc h\YH9D`]a a YX]UHYmii dcb YbhfUbWhc I b]cb"

CebHbi Uleb | b h YTEP: =b cfXYf hc fYa Ulb | b h YH9DZc``ck | b [UXa | gg|cbžh Ygfi ! XYbha i gha UlbhUlb U; D5 cZ&) |b U`Wi fgYk cf_ž|b h Ya UcfžUbX|b h YdfcZ/gglcbU` YXì Which WrfY'' 5 fYWa a YbXUhch Zica h\Ygh XYbhig a Ucf XYdUfha Ybh |g fYei |fYX Xi f|b| 1\ Y1 b|cf mYU Zcf Woblbi Ulcb |b 1\ YH9D'Cli XYblga i ghgi WYggZ ``mWa d`YhY` Uppygga YbhglU Yg%UbX'&cZh\Y'dcfh7c`|c dfcWgg'

AXa | gg|cb hc ghi XYbhHYUW|b|. Ghi XYbhga i ghÚYUb Udd | Wh|cb | b cfXYf hc VYUX| a ||HNXhcgi XYbHMUV||b| VYZcfYh YdcgNXXYUX||bYXi f||b| 1h YgYa YgMfdf|cfhcgi XYbh htwlb["5dd`]whcbguyu U`wy]bhy9xi whcb8yduh ybh'Chyffyei |fya ybhg ZcfghiXYbhhYUW]b[UfYUgZc``ckg

- % A lbla i a gwffygcb U`Udd`lwWYdcfhlcbgcZh\YDfU lg=gYflYg'
- '&" A |b|a i a ; D5 cZ&") |b'U`Wvi fgYk cf_"
- '' '' A |b|a i a ; D5 cZ&"+) |b h Ya Ucf/gca Ya Ucf XYdUha YblgfYei |fYU\|| \Yf a |b|a i a; D5 |b h Ya Ucf"
- · ("· A |b|a i a ; D5 cZ&"+) ·]b h YdfcZ/gg|cbU YXi Wh]cb WfY'
- ') "DofhRo`]o UggYgga YbhighU Y" a i ghVYgi WYggZi ``miWa d`YhYX"
- **" 7ca d`Yhcb cZh\YdfcZygdcbU`YXi Whcb WfY"
- +" @UW bc a cfYh Ub cbYWi fgYZcf Wa d'Yhcb cZh YYbXcfgYa YbhfYei]fY. a Ybhg"
- " FYWa a YbXUlcb Zfca llvYa Ucf XYdUla Ybli
- '- " 5 ddfcj U'cZh\Y8 YUb'cZGh XYblg"
- %" 5 ddfcj U cZh YHUWYf 9Xi Whcb 7ca a llhyy"

K \] Y bc Wri fgYg a UmVY hU_Yb Xi f]b[h\ Y gYa YgMf cZgli XYbhhYUW]b[zgli XYbh htw/b/gya |bufgufy\YXa 1

cZh Ygʻcdljcbg]gʻU UʻWYh fci [\hY5 gg]gʻUbh8 YUZf HWWf 9Xi Wljcb"
AddYUgʻH\Y9Xi Wljcb 8 YdUha Ybh]gWUf YXk]h\hYfYglcbgV]]lmhc Zc``ck h\Y
YgʻUV]g\YXdc`]WygZef UXa]gg]cb hc UbXWa d`Yljcb cZh\YH9D'H\YHMWYf 9Xi Wljcb
7ca a]lhYZk\]W]bW XYgʻfYdfYgʻbhUlji YgʻcZh\YZW mzfca Uwcggh\Yi b]j Yfg]mz]g
h\YH9DWcfX]bUljb[UbXdc`]Wha U_]b[VcXnzffh\Yi b]hUbX]gʻYglcbgVYZef Uzgʻf]b['h\Uh\YYgʻUV]g\YXdc`]Wha U_]b[VcXnzffh\Yi b]hUbX]gʻYglcbgVYZef Uzgʻf]b['h\Uh\YYgʻUV]g\YXdc`]Whoff
dfUhJW]gbchVY]b[Zc``ck YXzh\YHWWf 9Xi Wljcb 7ca a]lhYYgʻto 'XVYWbhUhXX''
H\YHWWf 9Xi Wljcb 7ca a]lhYY]gUgc h\YUddYUgWa a]lhYZef h\YH9D'5``UddYUg
Zef j Uf]UbWZca YgʻUV]g\YXdc`]WhiDXdfUhJWg\ci XVYdfYgʻbhXX]b k f]ljb[hc h\Y
8 YUb cZh\YGWcc``cZ9Xi Wljcb UbX< i a UbChi XJYgʻH\Y8 YUb k]``WbgXyfk\Yh\Yf
h\YUddYU`a Unzk]h\]b YgʻUV]g\YXdc`]WnzVf fUbhX''=Zh\YUddYU`\UgVYb XYb]YXVm
h\Y8 YUbzh\Ygʻi XYbha UmWccgYhc XJfYWh\YUddYU`hc h\YHWWf '9Xi Wljcb 7ca!
a]lhY''H\Ygʻi XYbhg\ci XWbhUMh\YWUJfa Ub`cZh\YH97`UbXdfYgʻbhh\YUddYU`]b`
k f]ljb["5 Zhf h\YH97`\UgWbg\XffYXh\YUddYUzh\Ygʻi XYbhk]``VYbcljUYX]b k f]ljb[cZh\YWa a]lhYygʻXYhffa]bUljcb''

Aggygga YbhcZgli XYbhci HWa YgʻGli XYblg UYYYei JfYX hoʻg Va JhiUdfcZyglcbU`

%+\$ dcflizc`]c Unʻ(glu[Ygh\fci [\ci hh\Ydfc[fUa "H\Ydcflizc`]c j Yf]UYgUwi Jghlcb cZ_bck `!

YX[Yzg_]``giUbX Xlgdcglhcbg fYei JfYX Vm]bghli hlcbUzgluhi bUhcbU glubXUfXg''

Hc VYUXa JhhX hoʻgli XYbhhYUWJb[zgli XYbhg a i ghiUgc Uwi JfYdUgglb[gwfYgcb U``

Udd`]WWYdcfhcbgcZh\YDfU Jg=UgXYhYfa JbYX Vmh\YHYbbYggYYGUhY8 YdUfha Ybh

cZ9Xi Whlcb"H\YDfU Jg=g\ci `XVYhU_Yb Uh`YUghcbYgYa YghYf df]cf hoʻh\YVY[]bb]b[`cZgli XYbhhYUW]b[hoʻUgqi fYfYW]dhcZdUgglb[gwfYg'

:]bUbW]U``=bZcf a Uh]cb

+b UXXJIJcb le li JlJcbžUZYYk]``WYWU[YXU``gli XYblgYb[U YX]b Yb\UbWXgli XYbli hWW]b[UbXYI hYbXYXUYXYI dYf]YbW'Th\]g]gi gYXle a YhidUfhcZh\YYI dYbgYgcZh\Y WcdYfUJb[hWYY gJdYbXUbXhfU Y YI dYbgYg]bWffYXVmh\Yi b]j Yfglmig dYfj]gcf" 5 a Uhf]UgZYY]gUgc WU[YXZcf gli XYbhhhWW]b[UbXUddfcdf]UhYWi fgYgh\fci [\ci h h\YWff]W`i a UbXle Wj Yf WggXJfYMimfYUhXhc h\YWi fgYcf" WcfUcfni'7i ffYbh a Uhf]UgUbXYI dYf]YbW'ZYgUY]bXJWhX`]b h\YÎ:]bUbVJU -bZcfa Uljcbi' gYMjcb cZ h\YCatalogue"

Dfc[fUagcZ'GhiXm']b'HYUW\Yf'9XiWUh]cb

Chi XYblgʻgYY_]b[``]Wbgi fY]bʻgYWbXUfmUfYUgʻa i ghWa d`YhYh\Ya Ucfʻ]bʻh\YYb! XcfgYa YbhUfYUUbX`h\Y cZ6i glbYgg5Xa]b]glfUljcb gYMljcb cZh\Y *Catalogue*7cf``]Wlbgl fYzd`i g'h\Y GYMbXUfmi DfcZ/gglcbU 9Xi Wlljcb"

Bi glbYggTYWbc`c[m7-12.7ca d`YhYh\Y5 Wbi bl]b[ž9Wbca]Wg#:]bUbWžA UbU Y! a Ybhzcf A Uf_Yl]b[a Ucf Ugci h]bYX]bh\YA W5ZYYCWcc`cZ6i glbYgg5 Xa]b]glfUl]cb'gYMl]cb'cZh\Y CatalogueZcf``]Wbgi fYžd`i g'h\YGYWbXUfmDfcZ/gglcbU'9Xi Wl]cb"H\]gcYbXcfgYa YbhUfYU]gcZXfYXUgXi U``]Wbgi fYk]h\6i glbYgg9Xi Wl]cb'+!%&"

B]c`c[m7-12.7ca d`YhYh\Y6]c`c[ma Ucf Ugci h]bYX]b'h\Y8 Ydh'cZ6]c`c[mgYMjcb`cZh\Y*Catalogue*Zcf``]Wbgi fYžd`i gh\YGYWbXUfmDfcZygglcbU'9Xi Wh]cb"

C\Ya |gfm712.7ca d`YhYhY7\Ya |gfma UcfUgci hi|bYX|b1hY8Ydli'cZ7\Ya |gfmi gYMjcb cZhY CatalogueZcf``|Whog fYd`i glhYGYWbXUfmDfcZygglcbU'9Xi Whjcb",

C\Ya |gfm7-12&P\ng|W7-12Xi U YbXcfgYa Yblg 7ca d`YhYh\Y7\Ya |W\#D\ng|W}a U'cf Ugci h`|bYX'|b h\Y8 Ydh"cZ7\Ya |gfmgYWljcb cZh\Y CatalogueZcf``|Wbgi fYzd`i g`h\YGYWbXUfmDfcZ/gg|cbU '9Xi Wh|cb"

EUFmC\]'X\ccXEXi WPfYK-3'7ca d'YhYh\Y@YUfb]b[: ci bXUllcbga U'cf UbXh\Y DfcZYgg]cbU' 'cf Ya\Ya Q i WEDf Y q

]b h\Y8 Ydh'cZA i gWgYMjcb cZh\Y *Catalogue* d`i gh\YGYMbXUmDfcZ/ggjcbU '9Xi Wl h]cb '7cfY'

Mi glWEXi Whlcb, JcW/GYbYfU Mi glWK-12 '7ca d`YhYh Y6UWYcf'cZA i glWXY! [fYYWfYk]h Ya d\Ugg]b A i glW9Xi WhlcbzHfUW Zcf'; YbYfU#7\cfU'=bglfi Wicf'Ug'ci h]bYX]b h Y8 Ydh'cZA i glWgWhlcb'cZh Y Catalogue'd i gh\YGYWbXUfmDfcZYgglcbU'9Xi Whlcb'7cfY'

P\ng\W EXi Which K-12:7ca d`YhYh Ya U`cf`]b D\ng\W '9Xi Which UbX'< YUh Ug`ci h]bYX]b h Y8 Ydh'cZD\ng\W '9Xi Which XY bYggzUbXCdcfhgYMich cZh Y`Catalogue`Zcf``|Whogi fYzd`i gh YCXWbXUfmDfcZYgglcbU '9Xi Which"

SWcc`ScVIUKcf_Yf, PfYK-127ca d'YHYh Ya Ucf]b GcVIUKcf_UbXh YdfYgViJVXX

< i a Ub Chi X]Yga |bcf ci h]bYX |b h\YCcV|U K cf_ gYMjcb cZh\Y Catalogue''
SdUb]g\ 712 7ca d`YhYh\YCdUb]g\ a U'cfZHYWYf 9Xi Wh]cb lfUWZLgci h]bYX |b h\Y

8 Ydli'c Z@Ub[i U YgYMjcb cZh\Y Catalogued`i gi\YGYWbXUfmDfcZ/gglcbU`9Xi Wljcb" SdYMU EXi Wljcb Cca dfY\Ybgj YK-12 "7ca d`YhYh\Ya U'cf`]b`CdYMU 9Xi Wljcbž h\Y7ca dfY\Ybgj Y?!'%Ya d\Ug\g\Us\Xh\YDfcZ/gglcbU'9Xi WljcbiU`cfYXZcf^`[Wbgi fY

Jb CdYMU '9Xi Whlcb Ugci h]bYX]b h Y8 Ydh"cZ9Xi Whlcb gYMlcb cZh Y Catalogue' SdYMU EXi Whlcb McXIÚYX K-12. 7ca d 'YhY h Ya U'cf ']b 'CdYMU '9Xi Whlcb zh Y A cXIÚYX?! '%Ya d\ UglgïUbX'h YDfcZ/gglcbU '9Xi Whlcb 'HJ 'cf YX Zcf '`]Wbgi fY]b 'CdY! WU '9Xi Whlcb 'Ug ci h]bYX ']b 'h Y8 Ydh"cZ9Xi Whlcb 'gYMlcb 'cZh Y Catalogue' 'H: 'UXX' 9'Ya YbhIfm?!, zUXX; 9C '8% 'UbX'8%* /D< M' \$%cf " %\$zUbX'5 FH') +"</p>

SdYYWCca a i b]Wd]cb & T\YUHY K-12Xi U YbXcfgYa Yblg 7ca d YhYh YH YUfY/CdYYW a Ucf k]lh HMWYf@]Wbg fYYa d\UggUgci h]bYX]b h Y8 Ydh cZ7ca a i b]Wl hcb 5 flggYMjcb cZh Y Catalogued i gh YCYWbXUfmDfcZ/gg|cbU 9Xi Wd]cb"

J jg U AfhK-12.7ca d`Yhrh Ya Ucf jb 5 fhUgci hjbYX jb h Y8 Ydh'cZ5 fhgYMjcb jb h Y Catalogue Icf ``j Wbgi fYzd i gh YGYWbXUfmiDfcZ/gglcbU '9Xi Whjcb''

AXXJIJcbU YbXcfgYa Ybh

%**+** '

b]Wh]cb h; fci [\YW\dfc[fUa\UZYMX\"; fck h; UbXX\]; Ycda YbhcZh; Y]bX\]j [Xi U Ug Yl dcgYXhc UMj]Img\ci `XcW\f\"5 bch\Yfg[] b]U\WbhUgdYMcZYX\ Wh]cb Ybj YcdYX\mi h; YXYdUfa Ybh]ga YUb]b[Z\`i gYcZ`Y]g fYi bXYf h; Y\WbWdhcZk Y`bYgg\"Dfyg\M]dl]cb dfc[fUa gUfY\a d\Ug\nX\]b Yl YU\g\#k Y`bYgg\"9Xi Wh]cbcZgdcfha UbU Ya Ybhghi XYbhg]bWi X\ga cfU UbX`Yh\]W fYgdcbg\[Y\]lmi]b h; Y\N gbYggcZgdcfh' 9Xi Wh]cbcZUh; Yh\WfUbYfg]bWi X\gdf\[Y\b\] Ybhj Ya YUg fYgUbXfY\U\]HUb h\W! b]ei YgcZUh; Yh\Wfu f]g\H\ X\fc[fUa\]g\H\ [\hk\]h\ \h\ \f\]

9Xi Which cZUh YhiWfUbYg]bWi XYgdfYj Ybhij Ya Yug fYgUbXfY\U)]hLilch hW!
blei YgcZUh YhiWfUbYg]bWi XYgdfYj Ybhij Ya Yug fYgUbXfY\U)]hLilch hW!
blei YgcZUh YhiWfUbYf flYg"h\Ydfc[fUa]gHu [\hk]h\ Uh Yh hbgj YWjb]W fYei]fYa Ybh'
I dcb [fUXi Uich k]h\ h\Y6"C"UbXh\Y5 h\ YhjWfUb]b[a Ucfzh\Ygi XYbhi]gY][]VYhc
ghZcf h\YB 5H5 6C 7zUh YhjWfUb]b[WfhjUWi]cb Yl Ua]bUlcb"
? bck]b[YXi Which]gUWbhibi ci gdfcWgzh\Ydfc[fUa g\ci XWMUhYUbXa UbhUb
Ub Ybj]fcba Ybhihfci [\aciy a ybhYd dYf]YbWgk\YfYj Ui YgWLfjUWhcb UbXYd dY

100 FlhbYggZcf HYUh (1) F, K, S

HAYYZZYMgcZj ccXdYfgcbU ÚlbYggcbYUW jbXjj JXi UžcZÚlbYgglfUbjbj cb hAYj Ufjci g gngtha gcZh.YVcXmiUbX\ck h.YVcXmfYgdcbXghcYl.YfWgYk]``VYUfYUgcZYad\Uglg''

*108 KU_]b[7cf F]lbYgg(1) Ob DYa UbX

KU_|b| UgUZcfa cZYIYfVkgYhcXYjYcdÚlbYgg"6ch_bck`YX|YUbXdfUNkjWcZh\Y \YUh\VYbYÚlgcZkU_|b| UfYYad\UglnYX"7cifgYaUnVYfYdYUhXcbW7zfUbUXX|! %+* hcbu WXX]hfYei]f]b[fYgYUfW UbXU\][\Yf`Yj Y`cZUMij]hn'i

*110 Jc``YnVU` (1) K

*111. BUXa |blcb (1) F, K

113 E'Ya YbltfmNi lflllcb (3) S

9 Ya Yblumdf | bVld YgcZbi lf | llcb UbX l\ Ylf Udd | Wllcb lc | l\ Y | bX| | Xi U UbX l\ YZla!

*115 Sbck S_]]b[(1) Ob DYa UbX

5 b]blfcXi Wijcb hcg_]``g#dfcdYf XfYgg#gUZYhn#UbXWbX]h]cb]b[hWWb]ei Yg/Udd`]WJ]cb` cZg_]``g``YUfbYX1\fci [\Uk YY_!`cb[ÚYX1f]d"

*116 CUbcYUbXK \]hYK UhYf RUZHb[(1) Ob DYa UbX

5b]blfcXi Wycb lc XYj Ycd g_]``gUbXdfcj]XYdfcdYf]bgfi Wycb]b l\YUfYUgcZgUZYm\

*117-27. KUUYI (1) F. S UXKUUYII (1) S

6`cWgz_|Wgzglf|_Ygzdi bWYgUbX bYWggLfmglUbWgZcf Yl YWllcb k |```VY lUi | \hlc XYj Ycd'g_]``žglfYb[l\\žUbX'[YbYfU\\YUl\\"

*119 AfWYfm(1) K

120 TYLa Sdcflg(1) F

: i bXla YbłU g_]``gžfi `Ygžl\YWb]ei YgžlbX glfUN/j mcZl\Yla gdcflg''

%,\$

415. P\ngc\c[mcZElYfVkgY(3)S

D\ngjc`c[]W`WUb[Yg`k\]W`cWWf`Xif]b[`UbX`UAMf`d\ngjW`UMij]lmi]bWiX]b[`WfW!`UcfnāfYgd]fUcfnāYbXcWjbYzUbXbYfjciggngMaUlWXYghaYbhg''

, 416 TYglgUbXMYUgi fYa Yblg]bHYU'h UbXP\ng|W EXi Wh]cb(3) F

6UglVglUlglJW dfcWXi fYgži gYcZglUbXUXJnYX llyggžbcfa gžgMYYb]b['llyggž[fUX]b['dfcWXi fYgžUbX'llYghWbglfi Wljcb 'Zcf' g_] ``gUbX ``YWi fYa Ullf]UgdYfU]bb['lc '\YUll 'UbXd\ng]W 'YXi Wl]cb "A 5H% fYWa a YbXYXVYZcfYlU_]b['l\]gWi fgY'

419 Of [Ul]nUl]cb UbXAXa]b]gffUl]cb cZP\ng|W EXi Wl]cb UbXSdcfh(3) F

5 Xa]b]gfUt]j YdfcVYa g]bUXYdUfha YbhcZd\ng]WYXi Wt]cb]bt\YV]ImgWcc`gngtYa ž fi fU`X]gf[]WgžYYa YbHJmUbX\][\'gWcc`gUbXW``Y[Yg'

421. SdcfhPgnWc`c[m(3)S

DfYfYei |g|hY. DGM&% "FYYNdfcW/ WYX|h DGM(&&"

5 dd`m]b[VlgjVtlgmWc`c[]Wi'df]bVJd`Ygfrc WtUW]b[glhi Ul]cbg"8 Yg[bYXfrc UJXWtUWYg]b'a chjj Ul]cbzWa a i b]Wtl]cbzUbXWtUW]b[a Yh\cXgch\Yf'h\Ub'g_]``gXYj Ycda Ybh''

425 Ci ffYbhlggi Yg]b Sdcfh(3) F

7cbhla dcfUmhlfybXgUbXWbhlcj YlgU]ggi Yg]b gdcfhik]h\ Ub Ya d\Uglg cb ÜbUbWz a UbU Ya YbhzYh]WgzcVlc`c[nzia Uf_Yl]b[UbX`Y[U]ggi Yg"+bW XYgUb cb[c]b[fYj]Yk cZgdcfhVi glbYgg^ci fbUgUbX'di V]WldcbgUgk Y`UgYj YbhWej YfU Y"

431. C\i fWM]b]gfmIbhfbg\]d/F]YXEldYf]YbW(3)AgNYXXX

5 72````gYa YgYY`]b Ü`cW`Wi fW`fWYYUJcb dfc[fUa žMA 75 cf: 75"H\Yghi XYbhk]```X]fYM;U`cW!]bzcf[Ub]nYUXUmWa d`dfc[fUa zgi fj Ym72cf fYMYUJcb bYYXgzWbXi WiUgdYMUfYMYUJcb XUmzYWH\Yghi XYbhk]```_YYdU`c[cZ\]g#\YfUMjj]lmmk f]lYUa UcfdUYfUbXgdYbX*\ci fgdYfk YY_cbg|lY'

435 Ibh (1-6) F. K. S. Si

=bhMfbg\]dcddcfhi b]lflYgi bXYf Uddfcdf]UYYgi dYfj [g]cb7zf UgdYYJÚYX'h]a Yzk]h\ gdY!
VJÚWfYei]fYa Yblg XYhYfa]bYX`Vmh\YXYdU'ha Ybhgi dYfj]gcffYg"') \ci fg]bhYfbg\]d` Yl dYf]YbWffa]b]a i a cZ%(\$\ci fgLfYei]fYX7zf YUW\ci fcZWYX]h'DfYfYei]g]hY. >i b]cf gLbX]b[UbXWbgYbhcZh\YXYdU'ha Ybh'

461. El YfVlgYTYgf]b[UbXPfYgViJdl]cb (3) S

DfYfYei |g|hY. D9K G(%) ž(%*"

ł D\ng|W 5 Wij |lm7ci fgYgUdd`|WWYhch\Y; YbYfU 7cfY7i ff|Wia

5h\`Yh]W'HfU]b]b['AU^cf'UbX'Dfc[fU a A]gg]cb'GhUhY a Ybh

H\Ya |gg|cb |g|c dfYdUY\|| \ `mYZYMij Y5 h\ `Yh|WHU|b|b['dfcZ\gg|cbUg'k |h\]b Ub Ybj |fcba YbhcZa YX|W gMYbWUbX7\f]gh|Ub ZJh\ "=b UW\fXUbWk |h\ H\bbYggYYgHJY\ WXYUb 5 h\ `Yh|WHU|bYf |gUdYfgcbzk \c i dcb h\YUXj |WzWbgYbhUbXcfU cf k f]lhYb dfYgMjdh|cbgcf fYZ\ffUgcZUd\ng|\UbWff|Ygci hh\ YdfUM|WcZdfYj Ybh|cbzfYW[b]lhcbz Yj Ui Uhcbza UbU Ya YbhzXlgdcglh|cbzffYUa YbhzcffY\U)`|hUhcbcZUh\ `Yh|Wb1 f]Yg'6m dfcj |X]b[Uei U]lmX|XUM|WUbXW|b|W YXi WhcbYl dYf]YbWhc ci f ghi XYbhzk Yk]``` dfYdUYh\Ya ZcfUXj UbWXYXi Wh|cb cf UbYbhm`Yj Y WYYf|b Uh\ Yh]WfU|b|b["

7 iff]Wi`ia

AWWYXJHLHcb: H\Y5h\YHWHUb]b[Dfc[fUa cZI b]cb I b]j Yfglm]g UWWYXJhYX Vm h\Y7ca a]gg|cb cb 5 WWXJHLHcb cZ5 ``]YX < YUh\ 9Xi Wh]cb Dfc[fUa gff755 < 9DL''

- %": i ``mUXa]lh\Xhc I b]cb I b]j Yfg|hmUgUXY[fYYgYY_]b[ghi XYbh'
- &" D9K G'&(\$k |h\U[fUXYcZ6'cf\][\Yf'U\\ bXa |b|aia'7IA; D5'&")"
- ' " 7ca d'Yhob cZUdd']Whlob ho 5H9DfYhi fbYXho h\Y8]fYMdf Vm5df]`%'
-) " 7i ffYbh7DF WfHÚWHcb a UbhUbYXZcf h\YXi fUhcb cZh\Ydfc[fUa "
- *" G[| bYX`U, fYYa Ybhla`UX\YfY\a`hWb]W`g\LbXUfXg`cZh\Ydfc[fUa`z`UX_bck`! YX[Ya YbhcZI b]cb@`Trainer`Student Handbook"
- +" 5dd`]Wblga UmVYUg_YX'lıc`]blYdfj]Yk 'k]l\ 'Ub'5H9D'Wa a]lHYYlıc`dYfgcbU`mi Yj Ui UHY'dchYbl}U'lıc Wa d`YHY'l\ Ydfc[fUa"

`7 c i fgY`CZZYf]b [g`]b`5h\`Yh]W'HfU]b]b ['fl5HŁ

flŁ< ci fg\NYX]h': Ì: U`/K ÌK]bh\rf/GìGdf]b[/GiÌGiaa Yf

265. Ah `YI]WIFUb]b[C`]b]W/ I (3) F

DfY#7cfYei]g]hY. D9K G'&% ž&&&ž&(\$"

=bgfi Wjcb]bÚfghUXUbXVUgWIh`YhJWfUb]b[WbWdlpg]blfcXi WjcbhcUh`YhJWfUb]b[`\fi,\fi\\\fi\]
fcca Ybj]fcba YbhzVY[]bgXYj Ycda YbhcZg_]``g]bk cf_]b[k]h\ UWhYUh`YhJWb1 f]Yg"
=bWi XYgg_]``Yj Ui Uhcb Zfca D9K G8% UbX88&Ugk Y`UgWri fgYa UhYf]U"

275 Ah `YIJWIfUb]b[C`]b]W/ II (3) S

DfY#7cfYei]g|hY. D9K G'&% ž&&&ž&(\$\/5H' *\$"

Df]a Uf]`m`UvcfUrcfmVlgXX]bgffi Wijcb`Wij Yf]b['h\Y\UbXgcb`dgnWca clrcf`g_]``gdfY! gYbhXX]b5H'*\$"9j Ui Uf]cbcZ_bck `YX[Y[UbYX]b"*\$UbXh]gWii fgY"

350 AXa |b|gffUlcb cZAh `Yl]WIfUb|b| Pfc[fUa (3) S

5 b cj Yfj]Yk cZa UbU Yf]U g_]``gbYWggUmZcf Ub`YZZVNij Y5 h`YljWHUb]b['dfc[fUa ']bW X]b['fYWfX`_YYd]b[ž[fci d cf[Ub]nU]cb UbX`fYVNi]ha YbhžUh`YljWfU]b]b['fcca 'XYg[bžgWYXi `]b['UbX]bgi fUbWdfcWXi fYg'

360 T\YfUdYiHVMcXU]HYg(3)F

DfYfYei |g|hY. D9K G8% "

5 XYLJ YX gli XmcZh Yh YfUlYi lJWa cXU]lJYg bcfa U`mi lJ]nYX VmUh YJWfUbYfg lc lfYLligdcflgfYUhX]b'i f]Yg" Gi XYblg k]```VYYl dcgYX lc Uk]XY j UJYmcZW]b]W hWb]ei Ygi lJ]nYX Vmgdcflga YXJWbY Gli XYblg k]```VYfYei]fYX lc XYa cbglfUhYVch dfWhW UbXh YcfYlW _bck `YX[YcZh YgYa cXU]lJYg"

361. UddYf BcXmFj Ui Uljcb UbXTfYUa Ybh]b Ah `Yl]WfUb]b[(3) F DfYfYei]g|h'. D9K G'8% ž(% ž6=C '88%"

365 Ah YHWIFUb|b| C`|b|W/ III (3) F

DfY#7cfYei |g|hYg D9K G8% ž888ž8(\$/5H' *\$ž' *%'

Df|a Uf|`m`UVcfUrcfmVUgYX`|bgffi Wijcb`Woj`Yf|b[Th\Y\UbXglcb`dgnWcachcf`g_]``gdfY!

5 Xi UbWX If Ub|b| Zcf I\ YWfYcZWa a cb U\ YfWb'i f|YgcZh\ Y`ck Yf VcXn'i

: i fh\ Yf |bgffi Vh|cb |b^ck Yf VcXmYj Ui U|cbgUbXh\ YfUdYi ||Wa cXU||h|Yg"=bWi XYgg_|```

=blM[fUNgd\Ufa UWc[]WUdd`|Whcbgzcf[Ub]nYXVmVcXmgngtNa gzk |l\ [YbYfU a YX]W

Df]a Uf]miWcfUcfmVlgiX]bgfi Wijcb Wj Yf]b[hY\UxgcbdgnWca che gbhhX]b5H' *%'9j Ui UjcbcZ_bck 'YX[Y[UbYX]b' *%UbXh]gWi fgy'

370 Lck Y BcXnEj Ui Ujcbg& TfYUa Ybhjb Ah 'YijWlfUbjb[(3) S
DfYfYei]glhY.5H' *%'

5 Xj UbWXhfUb]b[Zcf h YWfYcZWa a cb Uh 'YijWb1 f]YgcZh Y ck Yf Vc.

375 Ah 'YijWlfUb]b[C']b]W IJ (3) S
DfYfYei]glhg 5H' *) Z' +\$"

: i fh Yf]bgfi Wijcb]b ck Yf VcXnhj Ui UjcbgUbXh YfUlYi hJWa cXU]hJYg' Y Y Ui Ujcb UgHi [\h]b Wi fgYUbX]b 5H' * \$Z' +\$"

455 GYbYU MYXJWbY & P\Ufa Uw c[m]b Ah 'YijWlfUb]b[(3) S

=bhf fUhgd\Ufa Uw c[]Wldd]Whjcbgcf[Ub]nYXVnVcXngngha gzk]h [Yb
WbX]hjcbgUbXX]gW] hJYgcZh cgY]bj c j YX]b d\nglW UMij]hni

465 Ah 'YijWlfUb]b[C']b]W J (3) F
: i fh Yf]bgfi Wijcb]b Yf YlygYf\Uj HJicb hWb]ei YgUbX5Ha UbU Ya Y
g_] ``Yj Ui Ujcb UgHi [\h]b Wi fgYUbX]b 5H() \$Z(*\$"=bW XYgcZZWa di
XYj Ycd g_] ``g]b k cf_]b[k]h Uh 'YijWb1 f]Yg'

475 Ah 'YijWlfUb]b[C']b]W J (3) S
DfYfYei]glhig 5H()) Z(*)" : i fl\ Yf |bgffi Wqcb |b Yl YfVqgYfY\ UV|`|lLHcb l\YWb|ei YgUbX5Ha UbU Ya Ybh'=bWl XYg g_]``Yj Ui Ułjeb UgʻiLi [\h]b Woi fgYUbX]b 5H() \$z̄(*\$"=bWi XYgcZZWa di gWjb]Wi hc

DfYfYei |g|hYg 5H()) ž(*) "

: i fh\Yf`]bg\fi Wqcb`]b`d\Ufa UW`c[mUbX`[YbYfU`a YX]W`WbX|hcbg"=bWt XYg`g_]``` Yi Ui Uhcb UghLi [\h]b Wri fgYUbX]b 5H()) "

%,&

5j U`W`Y`]b YUW XYdUfha YbhU`dfYÚl "

180280380480 Shi XmAVfcUXPfc[fUa g(1-4) AgNYXXX

5 ``Wi fgYgUbXl\YfUdd`|Wl\cb'a i ghVYXYUbYXUbXUddfcj YX'df|cf lc lfUj Y''

19567. SdYMU Shi XJYg(1-4) Ob DYa UbX

@ck Yf! Yj Y [fci d gli X]Ygk \]W Xc bchUddYUf]b h\YfY[i `U XYdUfha YbHJ cZZYf]b[g"

39567. SdYMU Shi X|Yg(1-3) Ob DYa UbX

I ddYf! Yj Y [fcidgh X]Ygk \]W Xc bchUddYU]b h YfY |i 'U' XYdU ha YbHU c**ZY**f]b | g'

495-67. IbXYdYbXYbhShi Xm(1-4) Ob DYa UbX

=bX]j]Xi U fYgYUfW i bXYf h\Y[i]XUbWcZUZUW`hma Ya VYffpL"

4989 SYa |bUf (1-3) Ob DYa UbX

H: VY i gYX U'h YX|gViM|cb cZh YXYdU'ha Ybh'

8YdUfh a Ybh'cZ'DgmW\c`c[m 7c``Y[Y'cZ'9XiWUh]cb'UbX'<i a Ub'GhiX]Yg

: UW i `hm

TYfYgUK Yghf%, ' Ł":DfcZYggcf'cZDgnWc`c[miLbX'8 YdUfha Ybh7\Uff"6"5 "zI b]cb I b]! j YfglmrA "5 "zgX'G'zUbX'9X"8 "zI b]j YfglmrcZA Ya d\]g"

J]bb] LY][\B`UUWfl%-%L"5ggc\JUHYDfcZYggcf`cZDgn\Vc`c[n\"6\"G\"ZI b]cb`I b]j Yfg]lm\'

DGM7 < C@C: M

7cifgY'CZZYf]b[g']b'DgmW\c`c[m'flDGML

flE< ci fg7fYX]h/: !: U`/K !K]bhhf/GGdf]b[/Gi !Gi a a Yf

213 IblfcXi Wijcb lc PgnWc'c[m(3) F, K, S, Si

5 'gi fj YmcZh\Y'j U']ci g'UYUg']bW XYX']b 'h\YÚYX'cZdgnWc`c[nžii glb['h\YV]c!gcVJU' UbX'gVJYbh]ÚWUddfcUWYghc'i bXYfglUbX]b['VY\U]cf''

219 DY; Y'cda YblU PgnWc'c[m(3) K, S

DfYfYei |g|hY. DGM8%"

< i a Ub XYj Ycda YbhZca 1\\YdfYbUU gU Yh\fci [\c`XYf UXi `h\ccX"9a d\Ugig 'Ya c! h\cbUzgcVUzd\ng\Wza chcfzUbX'dgn\Wc`c[]W XYj Ycda YbhcZh\Y]bXjj [Xi U"

*225 Si fj YmcZEl WdllcbU]llYg(3) F, K, S, Si

GYYG9 883) 72cf Woi fgYXYgWi]dl]cb"

311. Shthleflygzef h YBY U JefU SVJYbWg (3) F, S

DfYfYei]glhY. DGM&% "FYWYa a YbXYX A 5H%% "

6UglVglLljglJW a YUg fYgUbXWbWdlgbYWggUfmhci bXYfglUbXdgnWc`c[JW`]lhfUi fYz k |lh Udd`|Whlcb hc lh YVY\Uj |cfU gVMbWgk |lh Ya d\Uglgcb Yl dYf|a YblU XYg[b"

312 IbXi glf]U PgnWc`c[m(3) F

The politic of the po

315 H]glrfmcZPgnWc`c[m(3) AgNYXXX

DfYfYei]glhY. DGM8%"

H\YXYj Ycda YbhcZdgnWc`c[m2fca]lgYUf`mVY[]bb]b[ghch\YdfYgYbhk]h\Ya d\Uglg

323 T\Ycf]YgcZPYfgcbU]lm(3) F DfYfYei |g|HY. DCM&% "

DGM7 < C@C · M

%,*

8YdUfhaYbh'cZ'GcW]U`'Kcf_ 7c``Y[Y'cZ'9XiWUh]cb'UbX'<iaUb'GhiX]Yg

:UWi`hm

MUfmAbbYPcYf%-*E"5 ggc\JUYDfcZ\ggcf`cZCc\JU`K cf_žDfc[fUa`8]fY\\frac{1}{2}\text{tbX8Y!} dUfa Ybh7\Uf"6"5 "ZJUbXYfV]`hi b]j YfglmA' "G'GK "ZI b]j YfglmcZ@ci]g]``Y/A "8]j "Z Gci h\Yfb`6Ud]ghfh\Yc`c[]\W`GYa]bUfnz5"7"G'K "

TYMTMB'U_`YmfR\$S' E"5 ggc VJUH'DfcZ/ggcf cZCcVJU K cf_"6"GZCU < ci glob CHUH'I b]! j Yfglmx'A "GK "UbXD\"8 "Z6Ufmi b]j Yfglmx'5 "7"GK "Z@"7"GK "

Reginb K] `gebf%-) E'5 ggcVJUHYDfcZ/ggcfcZGcVJUK cf_UbXCcVJUK cf_:]YX8]fYMicf" 6"GZHMbbYggYYGUHYI b]j Yfglma'A "GGK "ZI b]j YfglmcZHMbbYggYY"

A]gg]cb GhUhY a Ybh

H\Ya Ucf Ugc Ya d\UghYgdfYdUfUljcb Zcf [fUXi UhYgli Xhii; fUXi UhYgZca l\Y6CK dfc[fUa UfYY][]VYlc Udd`mZcf UXj UbWXglubX]b[]b [fUXi UhYdfc[fUa g`YUX]b[lc U a Ughffyjb gcVJU k cf_ XY[fYYZA CK "

7 iff]Wi`i a

5 ghi XYbha U'cf]b[']b'' E gh YYXj Y'' E gh YY

.GC7=5@.KCF?

5Xa]gg]cb FYei]fYaYbhg hc h\Y GcW]U Kcf Dfc[fUa

5 gi Xybha UmXyWLY Ua Ucf]b GcyJU K cf_ i dcb UXa]gg|cb lc l\ Yi b]j Yfg|mi 8i f]b['l\ Yglf]b['gya Yghf cZh\ Ygi Xybh\gcd\ca cfYm\Uzh\ Ygi Xybha U_YgUb Ud! d`]Wl]cb Zcf Yblfm]bhc l\ Ydfc[fUa "H\ YZc``ck]b[UYfYei]fYa Yblg Zcf UXa]gg|cb lc l\ Ydfc[fUa "b l\ Ygcd\ca cfYm\Uf.

- 7ca d`YhYUb`Udd`]WVr]cb'Zcfa "
- CbYZWV`hmifYZYfYbWzcbYdYfgcbU`fYZYfYbW'
- < Uj YUh`YUgh&"&):71 A; D5"

 - 7ca d'YhYhY; YbYfU'UbX'6"G'K "CdYYJÚW7cfYdfYZ/fUVmdf]cf hc'dfc[fUa UXa]gl glcb"
 - 7ca d'YhY Ub jbhYfj jYk k jh hY GcVJU K cf_ Dfc[fUa 5Xa jgg]cbg 7ca a jhYY' ? bck jb[ma U_jb[UZUgYcfU cf k f]hYb glUYa YbhXi f]b[hYUXa jgg]cb dfcWgg Wb fYgj hjb XYb]U cZUXa jgg]cb hch Ydfc[fUa "HY YGcVJU K cf_ Dfc[fUa 5Xa jgg]cbg 7ca a jhYYa UmfYei jfYci hgXYYj Ui Uljcbg Ugygga Ybhg UbX#cf cd]b]cbg cZdfcZyglcbUgUgJgXYYa YX bYWggUm
 - Dcgygyh ygydyfgcbu ei u llyg Cyzuk u ybyggya duh nic v ywlj llniddfyyulob czzj yfglnidfczygolobu wa a lla yblitbxu llyg u u u gycz bck 'yz y '
 - G[[bUglUha Ybh]bX]Wh]b[hUn\Y#g\Y\UgfYUXUbXk]``Zc``ck h\Y7cXYcZ9h]WgcZh\YBUhcbU'5ggcWUhcbcZCcWU'K cf_Yfg"

5ggYgg a Ybh'cZ'AU^cfg

Gh XYblga i ghWa d'YhYCK (-\$k]h\ Ua]b]a i a cZ(&(WcW\cifg]b Ub Uddfcj YX'gc\JU'gYfj]\W'U YbWiYi f]b[Cdf]b[cZh\Y]f gYb]cfmYUf"Chi XYblga i gh\Uj YUa]b]a i a '&') 'CK'; D5 hc Ybfc``]b 'CK' (-\$'UbX'(&": cf'[fUXi U]cbžCK' (-\$'a i ghVYWa d'YhX'k]h\ UdUgg]b[[fUXYUbX'(& k]h\ U6 cf\][\Yf"CK' (& \Ydgh\Ygh XYbh]bhY[fUYUbX'Y] Ui UhYU`h\Y_bck `YX] Yzj Ui YgUbX'g_]``gWij YfYX]b dfYj |ci gWi fgYk cf_"

GYb]cf GK a Ucfga i ghWa d`YhYUgYb]cf WdglobYdcfHÚ]c WbHJb]b[dYfgcbU Ug gYgga YbhgHHYa YbhgUbXYl Ua d`YgcZk cf_ Wa d`YhXX]b1\Ydfc[fUa "H\Y8 YdUfha Ybh k |``fYHJ|b1\YdcfH%c`]c"

Gyblefgk | ```HU_Yh\Y5fYU7cbWblfUlcb5W]Yj Ya YbhHygh]b CcVJU K cf_ f575HL |b'CK '(-\$"9l Ua |bUlcbfYg 'lgUYi gyXhc Wa dUYdYfZcfa UbWk |l\ bUlcbU bcfa g UbXhc UgyggglfYb[h\gUbXk YU bYggYg]b h\Ydfc[fUa "

; YbYfU`:bZcf a Uh]cb

H\YGcV|U`K cf_Dfc[fUa`]g`UWWYX]hXX`Vmih\Y7cibV|V`cb`GcV|U`K cf_'9XiWU]cbž %&8 8i YGfYYhžGi]hY) \$\$z5 YIUbXf[UzJ5`&&'%!'()+"

H\Y8]fYMrif`cZh\YGcVJU`K cf_Dfc[fUa`]gfYgdcbg]V`YZcf`cj YfU`UXa]b]gffUljcb`cZh\YDfc[fUa"H\YX]fYMrif`]gUj U]`UV`YXi f]b[cZÚW\ci fglrcUbgk Yf`ei Ygl]cbgfY[UX]b['h\Ydfc[fUa`zYad`cna Ybhcddcfhi b]l]YgzdfcZYgg]cbU`UggcVJUljcbgUbX``]Wrbgi fYgzUbX`ch\Yf`ei Ygl]cbgfYUhXhch\YgcVJU`k cf_dfcZYgg]cb"

H\YCcVJUKcf_:]YX8]fYWicf\Ugdf]aUmfYgdcbgV]]hmicfh\YÚYXYXiWh]cbWa!dcbYbhcZh\YDfc[fUa]bWiX]b[]ad`YaYbhUh]cbcZÚYXdfcWggYgUbXdfcWXifYgUbX`aUbhUb]b[YZZYMijYkcf_]b[fYUh]cbg\]dgk]h\ghYgZÚYX]bgfiWicfgZUbXghiXYbbg"

5 [YbWn:]YX =bgfi Watfg g dd Ya Ybhl\YYXi Wd]cbU dfc[fUa]b gcVJU k cf_ Vm dfcj]X]b[gi dYfj]g|cb lc gyb]cf gli XYblgk \c UYWa d Yl]b[(&(\ca

GC / = D ® KCF /

225 RYUlcbg\ |dg MUff|U YUbXFUa |`|Yg(3) F, S, Si FYMdfcW/WYX|h'OC7'88) "GYYOC7'88) 'Zcf'XYgW]dl]cb"

300 Hi a Ub BY\ Uj]cf UbXh\ YScVJU Ebj]fcba YbhI (3) F

DfYfYei |g|hY.CK Dfc|fUa 5Xa |gg|cb"

5b Yld`cfUljcb cZl\Yl\Ycf]YgUbX_bck YX[YcZ\i a Ub V]c!dgnWc!gcVJU!gd]f]li U! With fU XY, Yeda YbhZfea Vlfth htfei [\notib[UXi ih.ceX]b h.YWbhM heZh\YfUb[Y G a i b]h]Yg"H\Y]a dUMicZgcWU UbX'Wwbca]WZcfWg cb'\i a Ub'XJ Ycda Ybhk]""VY Y d'cfYX'k]h\ 'gdYWU UhYbhbhcb'hc''J Ui Uhb['h\YcfmUbX']hg'Udd']Wh]cb'hc']ggi Yg cZ 5 \i a Ub'XJ Yfghh"

301. Hi a Ub BY\U j lcf UbXh\YScWU Ebj]fcba YbhII (3) S

DfYfYei |g|hYg CK Dfc| fUa 5 Xa |gg|cb UbX CK "\$\$"

H\]g\Wi fgY\Wbh]bi Yghc a U_Yi gYcZh\YdYcd`Y!]b!gngha g'h\YcfYh]\W cf]YbhLh]cb\UbX fYUM) W k]†

335. ScVIV Pc`|Wh(3) S

CcVJU k YZIY dc`]WizVch.`\]glof]WV`mUbX`WffYbh`mzZcWglb[`cb`]lg'a U'cf`YYa Yblg`UbX`VUglVglfi Wi fYzUgk Y`Ugdfcj]X]b[UVUglgZcf`Yj Ui UljcbcZgcVJU k YZIY'dc`]VJYgz'dfc[fUa gzUbX'gYfj |VYg'

338 C\]`XfYb UbXFUa]`]YgUhR]g_ (3) S

7\UMMf]gf]Wg`UbX`bYYXg`cZZLa]`]Yg`Uhif]g_`UbX`dc`]VJYg`UbX`dfc[fUag'h\UxXfYgg` h\cgY`bYYXgzk]h\UHMbljcb`hc`f]g_`dUHMfbg`cZUM`gYzg`VgfUbW`igY`UbX`UM`gYzaYbHU`]``bYgg`UbX`dcj`Yfhn'i

340 ScVJU K cf_ SYfj JVVg]b SWcc`g(3)

DfY#7cfYei |g|hY. GK 88\$

370 GYbXYf UbXScVJYlm(3) S

DfYfYei |g|hY. CC 7 '88%" FYYJdfcW/ VJYX|h CC 7 " +\$"GYYCC 7 " +\$"Zcf XYgVJJdh]cb"

400 Pcdi 'UlcbgUhRlg (3) F

401. ScVJU K cf_ PfUNJWk]h IbXjj]Xi Ug FUa]`]YgUbXGfci dg(3) S

%-%

423 SYb]cf SYa |bUf |b ScVIU K cf_ PfUNIW (3) S

DfYfYei |g|hYg 5 Xa |gg|cb hc CK : |YXDfUMJWa "7cfYei |g|hY CK (-\$"

Chi XYbhefYi | Yk j Uf|ci gecVVU k cf dfcVVeeYezibWi X|b| YWv`c| | WV enetYa gi'n YcfreiWb! hUMaTUbXVA/bhfUMad\UgYgcZgcVjU'k cf_jbhYfjYbhJcbžgcVjU'k cf_jU'i Yg'UbX'Yh\]VAgZUbX' |bhffj YbHj Yfc YgUbXa YhcXg"7 UzgdfYgYbHJlcbgUbXUWgYgli XmdUdYf UfYfYei |fYX" : [YXDfUM]Wa Yl dYf]YbWgUfYdfcWgyXUgh\YmfYUhYhcWUgfcca WbhYbh'

490 ScVNUKcf_F|YXPfUM;VNa (9)S

🖸 DfYfYei |g|hYg 5 Xa |gg|cb/GK ; D5 &) cf \ |[\ Yf" 7 cfYei |g|hY. CK (& / DfcZYgg|cbU @|!

U]]|mi-bg ftbW'

"""
DfcZ/gg|cbU ÚYXYI dYf]YbW]bUZWW mlUddfcj YXWa a i b|lmiU YbWa/di V]Wf df]j UNZ

"""
Wf VY |lookf Wkf ('Gh XYb)ga i gha YYhk |lh h Y ÚYX]bgfi Wicf Zcf cbY\ci f#k YY_]b UZW!lc!ZWgi dYfj]gcfmWbZfYbWlc X]gWgg WgYgUbX'gii XYbhdfc[fYgg"H\Ygii XYbhk]``Wa d`YhYUa]b]a i a cZ(&(WcW\cifg]b` l\YU YbWwZXcWa Ybl\X`cb`Uk YY_`m`c[`UbXU'ci fbU"H\YUdd`]Wvl|cb 7cf`ÚYXd`UW! a Ybha i ghVYgi Va]lhhXZcf Uddfcj U cZh\YGcVJU K cf_ : [YX8]fYVhcf bc ``UhYf h\Ub' a |XIhMfa cZh\YdfYWX|b[:U`gYa YghMf"DUgg#:U]`"

5j U`W`Y]b YWW XYdUfha YbhU dfYÚl.

180280380480 Shi XmAVfcUXPfc[fUa g(1-4) AgNYXXX

5 ``Wi fgYgUbXh\YfUdd`|Whcb a i ghVYXYÚbYXUbXUddfcj YX'df]cf hc hfU Y"

19567. SdYWU Shi X|Yg(1-4) Ob DYa UbX

@ck Yf! Yj Y | fci d gli X|Ygk \ |W Xc bchUddYU |b h YfY| i `U XYdUfa YbHJ cZXf|b| g''

%-& 395-67. SdYMU Shi XJYg(1-4) Ob DYa UbX

I ddYf! Yj Y | fci d gli X|Ygk \ |W Xc bchUddYU |b h YfY| i `U XYdUfa YbHJ cZXf|b| g''

495-67. IbXYdYbXYbhShi Xm(1-4) Ob DYa UbX

=bX|j |Xi U fYgYUfW i bXYf l\ Y [i |XUbWcZUZUW \ma Ya VYffbt"

4989 SYa |bUf (1-3) FOb DYa UbX

H: VYi gYX Uhl\ YX|gVMHcb cZh\ YXYdUfha YbhZcf a U'cfg cb`m'

- 6" OC 7 '&\$) z̄' ' ' z̄' +\$z̄(%&̄(&&z̄(&) /7< F '&((z̄7CA '&) z̄97: '(%) z̄DGM&% / OK '' ')
- 7" GYYMi*\cifg'Zfca '&X|ZZMfYbhUfYUg
 - %'' OC 7 '' %\$\overline{z}' % \overline{z}' &\overline{x}' &\overline{z}' &\overline{x}' &\overl
 - &" DGM' % ž' &(ž(% ž(&) ž(')
 - ' "' D9K G'%% ž' \$%ž' &)
- 8" Cdl|cbU Yl dYf|YbW. gli XmUh: cWgcb l\Y: Ua |\mi-bg||h lYa Unig Vg||h lYaf cbYcf a cfYWi fgYgUvcj Y"CYYl\Y8 YdUha Ybh7\Uf Zcf XYHJ\g"

II. FUa]`mShi X|Yga |bcfl 21\ci fg

- 5" OC 7 '&& ž(&)
- 6" %) gYa YgMf \ci fgZfca &X|ZZMfYbhUfYUgg\ck b |b = 6"z7"z8 "cZl\Ya Ucf"

5ggYgg a Ybh'cZ'AU^cfg

GcVjc`c[ma Ucfgfci bX'ci hih Ylf'dfc[fUa k]h h Ylk c WddgcbYWi fgYg GC 7 (%-UbX(&&"=b'(&&:ghi XYblgYb[U]Y]b cf][]bU gcVjU fYgYUW h UhXfUk gi dcb h Ylh YcfYh]!
W _bck `YX[YUWi]fYX]b (%"5 a Ucf cf][]bU fYgYUW UbXcfU dfYgYbHJjcb UfYlh Y
Wa i `Uhj Yci hWa YcZh Ya Ucffgdfc[fUa "

H\YWdgcbYWi fgYgZcf: Ua]`miQi X]Yg'a Ucfg]bWi XYCC7'(&) z'(&&:UbX'(\%''=b''(&) gi XYblgUWi]fYl\YcfYl]W'_bck `YX[YUgkY``Ug'dfUM]W' Udd`]Wl]cbg''CC7'(&&:U`ck gl\Ygi XYbhlc Yb[UY]b`gc\UU`fYgYUW`UbX'(\%UZcfXgfYU``]ZYUdd`]Wl]cbcZ_bck `YX[YUbXfYgYUW''=bUXX]l]cblc Ubcf][]bU`fYgYUW'dUdYf UbXcfU`dfYgYbHJ]cbz a UcfglYghl\YfU)`]lmi]b`UYXk cf_"

Gh i XYbh Cf [Ub]nUh]cbg

P] GUa a UMi, bUlcbU gc\UU g\\YbW\cbcf gc\\W\nzig\Y_glc [a dfcj Yg\Wc`Ug\]d [b' gc\UU gli X]Yg/lc [bgd]fYg\fi]\Wlc \i a Ub]lm\wnUb [bh\cdot][YbhUddfcUW lc l\ Ygc i l|cb cZgc\\U dfcVYa g/UbX lc Yb[YbXYf gna dU\wnlck UXg cl\ Yfgk]l\ X]ZYfYbhcd]b]cbg \\
\(\text{UX} \) bgl]li l|cbg'' Gli XYblg k\c`\U Y\Wa d`YhX &\S\ci fg cZgc\\U g\\YbW k]l\ \U \'6\cdot \U Y\U'g\\D'\Wa Ya Y\Yg\] |\VYZcf a Ya VYfg\]d''

ScVk`c[]glg]bMclicbcZXfgCcWc`c[nic Ua]`mGi X]YgUbX<ia UbGi X]Yga Ucfg#a]bcfgcddcfli b]liYgZcfZY`ck g\]džgcWc`c[]WV`bYlk cf_]b[žUbXlc[i]XY]bXlj]Xi Ug]b'l\YUYX/lc cdYb'l\YUYX'cZGcWc`c[mlc dfcgdYMlj Ygli XYblg/UbXlc XYa cbglfUhY7\f]gliUb``cj Yl\\fci[\a]b]glfmcddcfli b]liYg"

Gh i XYbh 5 kUfXg

H\YP] GUa a UMi SWc`Ufg\]d MYXU`]g`dfYgYbhYX`lo`l\Y[fUXi Ul]b[`a Ya VYf`cZ l\YgcVMmik]l\ l\Y\][\YghiUWXYa]WU YfU Y''

7cifgY'CZZYf]b[g']b'GcW]c'c[m'flGC7L

flL< ci fg7fYX|h/: !: U`/K !K |bhhf/GGdf|b[/G !G a a Yf

211. Pf]bVkd`YgcZScVkc`c[m(3) F, K, S, Si

5b | blfcXi Wich hc h\Yg\Whl\U\\end{aligned} XmcZ\i a Ub VY\U | cf | b | fci d g\text{y\thib} | g'

213 ScVNU PfcV Ya g(3) SÍ Ej Yb MYUfg

5 dfWMW jbhfcXi Wjcbhcigca YcZh YgdYVIÚWWbhYa dcfUmgcVJU jggi Yggi W UgWJa Yž Xca Ygj]Vj jc YbWzUbXUW\c`UbXXf A hc Q

Aadh

Yl dUbX|b[cddcfhi b]h]Yg"Hcd]Wy CYl i U XYj Ycda YbhžZ bWh]cbUbXXngZ bWh]cbžW`hi fU`UbX'gcWc'ldgnWc`c[]Wv"]ggi YgžUbX'7\f]gd]UbžYh\]Wv"UbX'a cfU"fYgdcbgYg"

411. Ibh/fbg\]d (3) F, K, S, Si

DfYfYei |g|Ng 8%CC7 \ci fg|bW X|b['(% cf'(&) /(&&UbXXYdUha YbHU Uddfcj U" 5 'ÚYX'g|h Ulcb |b UWa a i b|lmU YbWh'G dYfj |g|cb k |``VYdfcj |XYX'Vml\YU YbWh' UbXXYdUha Ybh'5 'ci fbU UbX'fYgYUW dUdYf UfYfYei |fYX"

417. T\YH]glcfmcZScVJUT\ci[\h(3)F

DfYfYei]ghYg * \ci fgcZCC7]bWi X]b['CC7' &%''

8YdUfhaYbh'cZ'7cbh]bi]b['GhiX]Yg 7c``Y[Y'cZ'9XiWUh]cb'UbX'<iaUb'GhiX]Yg

Dfc[fUa'@YUXYfg\]d

BUFVUFUPYffmff% - - L"7\UffcZh\Y8 YdUfha YbhcZ7cbl]bi]b['Gh X]Ygz8]fYMrcfcZh\Y LAUNCH'Drc[fUa z'UbX'5 ggc\JUhYDrcZ/ggcf"6"5 "zi b]j YfglmcZA]W][Ubz5 bb '5 fVcfz A "6"5 "ziFcVYfhA cff]g7c``Y[Y/9X'8 "'7UbX]XUhzi b]j YfglmcZA Ya d\]g"

7CBH-B1-B; GH18-9G

A HG

%-+

; YbYfU 7cfY"5``Wi fgYk cf_UthYa dhYXa i ghXcWa YbhU7I A; D5 cZ&\$cf`][\Yf" H\YUdd`]Wbha i ghVYUn`YUgh&(mYUfgZcfU YUbX'dfcj]XYXcWa YbhUhcb cZUn`YUgh lk c mYUfgcZfYYj Ubhk cf_Yl dYf]YbW"

Dfc[fUa'GdYW]ÚW'Dc`]W]Yg

DfY.6CC@Dfc[fUa 5 Xa]gg|cb U`ck glfUbg2Af`gli XYblgk \c`\Uj Ybcha YhDfc[fUa 5 Xa]gg|cb FYei]fYa Yblghc HU_Y; YbYfU 7cfYUbX9`YWlj YgVma YYljb[cb`ml b]j Yfglmi 5 Xa]gg|cb fYei]fYa Yblg"7ci fgYgk]``VYcZZYfYX`]b h\YYj Yb]b[g]b Vch\Zl```gYa YgNf`UbXUWYYUNXZcfa Ug"

7fYX|hZcfDf|cf@Mfb|b[z7D@za UniVYUk UXYXZcfM dYf]Ybh]U `YUfb|b[i glb[i dcfhl Zc`]c!glmYXcWa YbhUh]cb cZ`YUfb|b["Chi XYbhga i ghiVYZ ``miUWdlhX`UbX`fY[]ghfYX`]b h\Y6CC@Dfc[fUa VYZcfYg Va]lh]b[h\YdcfhZc`]c"5 a U]a i a cZ%) \ci fga UniVY Uk UXYX`hck UXgh\Y6CC@h\fci [\7D@"7\YW`k]h\h\Y7D@8]fYMcfZcfUdd`]Wh]cb UbXZ ``XYU]`g"

I b|cbI b|j Yfg|mdUflyVdUYg|bgYj YfU VYYX|hVmYl Ua |bUlcbdfc|fUa gZc``ck |b| '

19567. SdYMU Shi XJYg(1-4) Ob DYa UbX

@ck Yf! Yj Y [fci d'gh X]Ygk \]W Xc bchUddYU]b h YfY[i `U XYdUha YbhU cZZAf]b[g'

39567. SdYVJU Shi XJYg(1-4) Ob DYa UbX

I ddYf! Yj Y [fci d'gli X]Ygk \]W Xc bchUddYU]b h YfY[i 'U' XYdUha YbhU cZZAf]b[g'

<CC@.C:BIFG=B;

C**U^cHYKUXLU'gcb**'f%---E''5ggcVJUNYDfcZVggcf'cZBifglb["'8]d`caUz6UdljghAY! acf]U'<cgd]HU/6"5"z'ChYd\Ybg7c``Y[Y/A"GzHMUgKcaYbÑyIb]jYfglhm/D\"8"z'Ch'' @ci]gIb]jYfglhm

JJ``KYVVf%, +Ł"5ggcVJUYDfcZYggcfcZBifglb["6'GB'zAiffUnGUYIb]jYfglmrA'GB'zIb]jYfglmrcZ9jUbg]``Y/D\"8'zIb]jYfglmrcZHbbYggYYzAYad\]g'

A]gg]cb'GhUhY a Ybh

H\Ya]gg|cb`cZh\YGWcc``cZBifg|b[`]ghc`VY`NW`YbW!Xf]jYbž7\f]ghWbhYfYxzdYcd`Y!ZcWgYxzUbXZhifY!XfYMXk\]`YdfYdUf]b[`eiU]ÚYX`]bX|j]XiUgZcf`UWfYYf`]bh\YWf]b[`zh\YfUN i]WhYWf]b[`dfcZxgg|cb`cZbifg|b["

7 ifflWi`ia

H\Ydfc[fUagcZh\YGWcc``cZBifgb['UfYUddfcjYX'Vmih\YHbbYggYY6cUX`cZBifgb['UbX'UWXX]hX`Vmih\Y7caa]gg]cb'cb'7c``Y[]UhYBifgb['9XiWh]cb"'77B9'aUmVYWbHWXXUhCbY8idcbh7]fWYZBK'G[]hY)'\$ZKUg\]b[hcbz87'&\$\$'*!%&\$cf'&\$&", +"*+%

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DŲ JXS. DeWYfinff%-*ŁDfYglXYbhiUbXDfcZ/ggcfcZ7\f]gl]Ub'Cli XJYg"6"GZI blj YfglmcZ 5 `UMa UU:6]fa]b[\Ua /A "8]j "Z; fUW*H\Yc`c[]Wb'CYa]bUfm/A "8]j "ZCci lkk YglMfb'6U:ll]gli H\Yc`c[]Wb'CYa]bUfm/A "5 "ZHM Ug'7\f]gl]Ub'I blj Yfglm/D\"8"ZI blj YfglmcZHM Ug'U:5f`]b[! lcb/5XX]ll;cbU`gli Xnzi8fYk I blj Yfglmi

EXBfntbhft&s(£CdYMU;5 gglgtbhirc h\YDfYglXYbhtbX@MtffYf]bDc`]hWCMMbW'6"5"UbX' >'8"ZI blj YfglmcZA [gglgdd]"

DYYAbb Ci VfYUh ff%-+L5 gglgUbhltc lh YDfYglXYbhZcf 7ca a i b]lmiUbXHi ghYFYUljcbg"6"Gz 6YhY 7c``Yl Y/A "6"5 "zC_ U\ca U7 |lmi b|j Yfglm'i

C]bXnMYfX]h f% - *L9l YWljj Y5 gjgl.bhic h YDfYglXYbh' KU\nBUYgf% - \$L9l YWljj YGWMUmic h YDfYglXYbh'

7Uadig'A]b]ghf]Yg

TcXXE. BfUXnff% **EA]blgthf lc lh YI blj YfglmiUbX=bgfi Wicf cZ7\f]gfJUb Cli X]Yg"6"GZI b]cb I blj YfglmiA "8]j "ZCci lh k Ygthfb 6Udlf]gfiH\Yc`c[]W/ CYa]bUfm
DUbUJUa YgfR8S' E

AbXmPYHj[fYk fRSS(E8]fYWcfcZQH XYbhA]b]gf]Yg"6"5"ZI b]cb1 b]j Yfg]m"i5XX]H]cbU gh Xmï Cci h\Yfb6UdHghH\Yc`c[]WcYa |bUfm"

Si rlbbYF. Mcg YnfR\$\$\$L8 |fYMicf cZQi XYbhCi lfYUW"6"G"UbXA "5 "="GZI b]cb1 b]j Yfglm'i MUbXnBYh N]j YbfR\$\$' L5 Xa |b|gfUlj Y5 gg|glUbl'

5h\`Yh]Wg

DU JXB'UWglcWff%+' E8 JfWhitf cZ5 h\ `Y4]WfUXDfcZYggcf cZD\ngW' 9Xi Wl]cb"6'GZI b]cb'
I b]j YfglmrA "9X'ZI b]j YfglmcZA Ya d\]g/9X'8 "ZI b]j YfglmcZCci h\ Yfb'A]gglggddd]"
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A HUbhYWhitb"6"5 "ZI b]cb I b]j YfglmrA "9X'ZI b]j YfglmcZF

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JUSYBUVYY BYHgff%+(LFY[]gffU"6"5"ZI b]cb1 b]j Yfglmr'A "9X"ZI b]j YfglmrcZA Ya d\]g'5Xl X[h]cbU ghi XmzI b]j YfglmrcZA Ya d\]g"

AbjlUTcXXft88SSL5gglgUbhFY |glfU"5"GzzUWgcb'GUhY7ca a i b]lm7c``Y[Y/6"G"UbX A "5 "9X'zI b]cb I b]j Yfglm"

A`]WFUffUf f% - +Ł'GYMMtIfn"i5 "G'zz Wycb GLHY7ca a i b]lm7c``Y[Y

Ji XmT\ca UgfR\$\$\$&5WXYa]WFYWfXg"6"5 "žI b]cb1 b]j Yfg|m"

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GhiXYbh@YUXYfg\]d'8YjY`cdaYbh

NYU RU YF f8\$\$&L7ccfX|bUcf cZCi XYbh@YUXYfg\|d8Yj Ycda Ybh'6'GZI b|cb1 b|j Yfglm"i

GhiXYbh'Dfc[fUaq

MUF_JUXYHHUUFfR\$\$%128]fYWhcf`cZGi XYbhDfc[fUa g"6"5"%z ci [\hcb*7c``Y[Y/A "G9"%5"%ZYX` I b]j Yfg]hth

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BftbXcb Bcmtb fR\$\$&L5 gg[gftbh8]fYMcf cZK Y`bYgg"6"GzI b]cb I b]j Yfglm"

PU `DYgWYbYgfRssst:8 |fWkicfcZ7ci bgY]b[GNfj |WgUbX5gg]gHbhDfcZ/ggcfcZDgnWcc[mi 6"5"zI blj Yfg|lmcZ: `cf|XU/Dgn'8"zFcgYa YUXGWcc`cZDgnWcc[mi

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; Yf a Ubhc kb 7U a dig

RUXM6\UXM6bf88\$ E9\WMtj Y8\fYMcfcZ; Yfa Ublck b7Ua di gz8\fYMcfcZ9X'C"UbX 9X'8'z; Yfa Ublck bUbX5ggcVJUYDfcZ/ggcfcZ9Xi WdfcbU @YUXYfg\\d"'6'Gz: fYYX!< UfXY! aUb1 blj YfglmxA "9X"UbXD\"8"zI blj YfglmcZA |gglggldd|"

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DcbUXHc`gjb[Yff88\$' LFYWi]lMf"6"GZGci l\Yfb=``]bc]gI b]j YfglmrA "6"5"zI b]cbI b]j Yfglmr BY\ PcnbYf8, (ž8\$\$%L7ccfX]bUrcfcZA "9X'z9X'GZUbX9X'8"Dfc[fUa g"

GYf]_US]a a cbgfR8\$\text{ L"FYWdhcb]gh"

Si YTUn`cf f%--Ł7ccfX]bUcf cZ; fUXi Uh'6i glbYggDfc[fUa g'

L|bXUT|HiYfR\$\$' Ł7ccfX|bUcf cZA "5 "9X" Dfc[fUa'

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Shij Yb L. BU_Yff% - SL5 ggcVJUhYJ]WDfYgXYbhZcf 5 WXYa]WFYgci fWgz8 |fYMcf cZhY@]!

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&'% H\ Yc`c[]Wl'CYa]bUfmrA "5 "zI blj YfglmcZ? Ybhi Wmr5 XX]l·]cbU ghi Xnzī blj YfglmcZCci h\ 7 Ufc`]bUUbXI blj YfglmcZA Ya d\]g"

JMbb]YBmfXf%-) ŁCYf]Ug7ccfX]bUcfUbX7]fWUlcb5gg]gLbli6"5"zIb]cbbX

K YbXmJ YtiYinf888%1.8]fYWicf Zcf 5 `i a b] FYU]cbgUbX 5 bbi U 'Gi XYbhG ddcfli' 6 'G6" 5 "ž I b]cb1 b]j Yfg]hn

Ai VfmHUff]gf88S(E;]ZgDfcWgg]b['7ccfX]bUcf"6'GZA i ffUmQUMYI b]j Yfg]lm'i BY]bXUMcggf%-' EGWMUfmž5 i a b]#5 bbi U;]j]b["

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KUh YfbYC\i HYf88S E5ggcVJUh'J JWDfYgJXYbhZcf9bfc``a YbhCxfj JWgUbX1 blj YfglmFY!

`UlcbgUbX5gglgUbhDfcZ/ggcfcZ7ca a i bJWhJcb5flg"6"5"5"K]``JUa '7UYm7c``Y[Y/6"5"2

I blj YfglmcZGci lh YfbA]ggggldd]/A "5"2Gci lh k YghA]ggci f] GUHYI blj YfglmcD\"8"2I blj Yf!
glmcZGci lh YfbA]ggggldd]"5XXJHcbU gli Xmz9gWrUXYDcfli [YgYCf]YbHWcUbXHJdY]

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CZUWY'cZ' I b] j Yfg]hm'7caaib]WUh]cbg

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a YbhGMj]WgUbX5 gg]gUbhDfcZ/ggcfcZ7ca a i b]Wh]cb5flg"6"5 "žK]``]Ua '7UYmn7c``Y[Y/6"5 "žI b]j Yfg]mncZGci lhYfbA]gg]gd]d]/A "5 "žCci lhk YghA]ggci f] GUHYI b]j Yfg]mn7D\"8 "ž
I b]j Yfg]mncZGci lhYfbA]gg]gg]dd]"5 XX]l]cbU ghi Xnzi9gW/UXYDcfli [YgYCf]YbhUwcUbX
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g., Ji Ub]HÜCchbYff%-&L5ggcVJÜY8]fYMcfcZIb]j YfglmiFYUlcbg

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5 WAYa JWFY[i `Ur]cbg 5 WAXYa]WabhM[f]hnži&% 5b5iX]hX7ci fgYž&8 7\Ub[YcZ7`UgYg#8fcd!5*XX*z%!&\$ 7 Ugg 5 HMbXUbWz 88 7cbWffYbh9bfc``a Ybhž&\$; fUXi UljcbFYei]fYaYbhgž&%&+ < cbcf 'Gi XYbhgž%+ Ei Ubł]lmcZK cf_ž&\$ CWc`Ugh]WFY[i`Ur]cbgž‱ K Jh XfUk U: fca 'GWcc'ž&\$ 5 World blyb[ž%()ž%(,ž%)) 5 WAXYa]WHMfa g **7£WX]Y**ak:]₩HZ%* : i ``!Ha YGh XYbhž% ; fUXYgUbXEiU]lmi7fYX]lpgz/% A Ucf UbXA]bcfž%!%ž&+ Bia VYf]b[ˈcZ7ci fgYgž%+ Cf[Ub]nUlcb cZh\Y7i ff]W\i a ž(-Chi XYbhi7 `Ugg|ÚWM;cbž%+ 5 WMX]hLl]cb UbX A Ya VYfg\]dž(

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