



# ARTS1660

hfcXi Wcfm? cfYUb '5

HYfa 'CbY' #'&\$&%

7ci fgY`Cj Yfj JYk

GHJZ`7cbHJW`8YHJ`g

7cbj Ybcfg

B Ua Y	9a U]	5j U]`UV]`]m	@cW]hcb	D\cbY
; ]!<mi b`G\]b	[ "g\]b4 i bgk "YXi "Ui	H"6"5"	F cca `&\$&ž	- ' , ) `%+ ' %
			A cfj Yb`6fck b	

@YW]i fYfg

B Ua Y	9a U]	5j U]`UV]`]m	@cW]hcb	D\cbY
; ]!<mi b`G\]b	[ "g\]b4 i bgk "YXi "Ui	5g`5Vcj Y	5g`5Vcj Y	5g`5Vcj Y

Hi hcfg

B Ua Y	9a U]	5j U]`UV]`]m	@cW]hcb	D\cbY
F cgU`>cc`M b`MJb[	^c"n]b[ 4 i bgk "YXi "Ui	H"6"5"	F cca `&*, ž	- ' , ) `%* - *
			A cfj Yb`6fck b	

GWXcc`7cbHJW`bZcfa Uhjcb

GWXcc`cZ<i a Ub]hYg`UbX`@Jb[ i U[ Yg

@cW]hcb. `GWXcc`C Z]WžA cfj Yb`6fck b`6i ]X]b[ ž`@Yj Y`ž&),

CdYb]b[ `<ci fg. `A cbXUm! : f]XUmž - Ua `!` ) da

D\cbY. `ž\*%&`- ' , ) `%\* , %

: U! . `ž\*%&`- ' , ) ; +\$)

9a U]: [\U`4 i bgk "YXi "Ui](#)

# 7ci fgY'8YHJ]g

7fYX]hDc]bfg '\*

## Gi a a UfmicZhY'7ci fgY

H\]g'Wci fgY'dfcj ]XYg]b]fcXi Wc'fm'Yj Y'h ]h]cb]b'? cFYUb'Ub[ i U[ Y'Z'ca 'U'Wca a i b]W]h] Y'UbX'fUg\_!VUgYX UddfcUW' H\Y'a YX]i a 'cZ]b]g]f]i W]cb]g'9b[ 'g' UbX'Zk \YfYj Yf'Uddfcdf]UHY'Z? cFYUb' H\fc] [ \ 'h]g'Wci fgY'Z mci 'k ]'XYj Y'cd'VUg]W]Wca a i b]W]h] Y'g\_]g]b'? cFYUb'h'fc] [ \ 'j U]f]ci g'gdYU\_]b[ 'UbX'k f]h]b[ 'UW]h] ]h]Yg' H\Y'Wci fgY'VY[ ]bg'k ]h' h'Y'? cFYUb'gci bX'gm]h]a 'UbX'VUg]W] fY'Y]b[ g'UbX']b]fcXi W'g'U'bi a VYf'cZ [ fUa a Uh]W]g]f]i W]h] fYg'UbX'j cW]Vi 'Ufm]h'Uh]UfY'YggYb]h]U'hc'VUg]W]Wca a i b]W]h]cb]b'? cFYUb'"J cW]Vi 'Ufm UbX' [ fUa a Uh]W]g]f]i W]h] fYg'UfY'Yi dFYggYX']b' < Ub[ Yi 'UbX'dfYgYb]h]X'k ]h]b'h'Y'Wc'b]h]i hcZ'W'hi fU'm fY'Yj Ub]h]c]d]W]g' H\Y'hc]d]W]g'Wc]j YfYX']b'h'Y'Wci fgY']b]Wi XY']b]fcXi W]h]cb]g'UbX'[ fY'Y]b[ g]Z? cFYUb'U'd\UVY'h] Yi W]Ub[ ]b[ ]b]Z'fa Uh]cb]Z'cZ]f]b[ 'UbX'Ug\_]b[ 'Z'Wci b]h]b[ 'Z'h]'b[ 'h'Y'h]a Y'UbX'a U\_]b[ 'Uddc]b]h]a Yb]h]Z X]g]W]gg]b[ 'XU]m]fci h]b]Yg'Ug'k Y'Ug'ZcX'Z'h]Uj Y'U]b[ 'UbX'd'UW]g']b'? cFYU'"K \YfYj Yf'Uddfcdf]UHY'Z'h'Y Wci fgY'i h]j]g]Yg'? !dcd'a Uh]f]U]g'UbX'f]W]V]f]f]YU']U]f]"

H\]g'Wci fgY']g'U'VY[ ]bb]Yf]g]Yj Y'Ub[ i U[ Y'Wci fgY'"5'gh] XYb]h]k \c'Uj Y'UX'gca Y'Yi dYf]Yb]W'k ]h' h'Y' Ub[ i U[ Y'Z'Y]h]Yf'Ug'U'Yf]h]U] Y'Ub[ i U[ Y'cf'h'fc] [ \ 'd'fYj ]ci g]b]g]f]i W]cb]Z'a i gh]Z'"]b'h'Y'd'UW]a Ybh ei Yg]h]cbb]U]fY'Uj U]UV'Y'Uh'f]h]g. #k k "Uf]g"i b]gk "YXi "Ui #AU#g]h]Xmi g#fYgci f]W]g]i ddc]f]#Ub[ i U] Y! d'UW]a Yb]h]g" Mci 'k ]'bch]VY'dYfa ]h]X'hc'Ybfc'"]b'U'Ub[ i U[ Y'Wci fgY'h]Uh]g'hc'YUgmiZ'f'mci "'Z'h]g cW]W]fg]Z'mci 'k ]'VY'fYei Yg]h]X'hc'W]Ub[ Y'mci fYb]fc'a Yb]h]"

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

% F YWc [ b]gY'VUg]W]gci bXg'UbX'gci bX'Wca V]b]Uh]cb]g]b'? cFYUb  
 & F YUX'UbX'k f]h] < Ub[ Yi 'Uddfcdf]UHY'm  
 ' " GdYU\_'k ]h' fYUgcbUV'm]UW]W] fU]h' d'fcbi b]W]Uh]cb'UbX']b]c]b]Uh]cb'i g]b[ 'g]a d'Y'gYb]h]b]W'd'U]h]f]bg k ]h]b]h]c]d]W]g'fY'U]h]X'hc'gi f]j ]j U]!Yj Y'Ub[ i U[ Y'i gY  
 (" F YUX'g'c]f]h]h]i h]g'k \]W]Wc'b]h]b]g]a d'Y']b]Z'fa Uh]cb'k ]h]b]h]c]d]W]g'fY'U]h]X'hc'gi f]j ]j U]!Yj Y'Ub[ i U[ Y'i gY  
 )" 9I d'U]b]UgdY'W]g'cZ]j YfmXUm']Z]f]b'? cFYU]Z]b]Wi X]b[ 'ZcX'Z'd'UW]g'cZ]j ]g]h]g'c]d]b[ 'Z'bi a VYfg]Z'Yh]W"

## HYUW]b[ 'G]fU]h] [ ]Yg'

F Uh]cb]U'Y

? cFYUb'G]h]X]Yg'Uh]i BGK 'dfcj ]XYg'gh] XYb]h]k ]h' h'Y'c]d]c]f]h] b]h]m]h]c'XYj Y'cd'U'VU'Ub]W'cZ'Wca dY]h]bh ? cFYUb'Ub[ i U[ Y'g\_]g'UbX']b]XYd'h]'\_bck'YX[ Y'UbX'i bXYfg]UbX]b[ 'UVci h? cFYU'"5F HG%\* \* \$]g'h]Y'j Yfm Z]fg]h]cZ'h]Y'7ci fgYg'h]Uh]U]a 'Uh]UX] Ub]W]b[ 'h'Y'gh] XYb]h]c'U'Zi Ybh]Wca a UbX'cZ'h]Y'? cFYUb'Ub[ i U[ Y"

5F HG%\* \* \$f]g'Wc'b]h]b]h]g'XYg][ bYX'hc'\Y'd'h]Y'gh] XYb]h]a Y]h]a a YX]U]h]'Ub[ i U[ Y'b]Y]Xg']b'f]d]fc'Y]W]X]L Yj YfmXUm]g]h] Uh]cb]g]b'? cFYU'UbX'c]f]b]b]h]f]U]W]cb]g'k ]h'? cFYUbg]b]'5i g]f]U]U]Z]UbX'hc'Yb]UV'Y'h]Y'gh] XYb]h]b] d]U]h]W'Uf'hc'

- ]b]fcXi W'h]Ya gY'j Yg'UbX'[ fY]h]d]Ycd'Y'Z
- Yi W]Ub[ Y']b]Z'fa Uh]cb]UVci h]k \YfY'h]Ym]UfY'\YUX]b[ 'Z'f'fUg'd]U]f]h]cZ'h]Y [ fY]h]b[ g]Z
- cZ]f'UbX'Ug\_'Z'f'fY]Z]Yg]a Yb]h]Z
- Wci b]h]b'? cFYUb]Z
- h]'h'Y'h]a Y'UbX'a U\_Y'Uddc]b]h]a Yb]h]Z



# 5ggYgga Ybh

## 5ggYgga YbhHUg\_g

5ggYgga YbhHUg_	K Y][ \h	8i Y'8UH	Gh XYbh@YUfb]b[ Ci hWta Yg'5ggYggYX
A ]X!HYfa 'HYgh	' \$i	⊖'K YY_)	%ž&ž(
DfYgYbhU]cb'	&)i	: f]XUmžK YY_ '%\$	%ž' ž)
: ]bU''9i Ua '	( )i	: cfa U''9i Ua 'DYf]cX	&ž( ž)

## 5ggYgga Ybh8YHJ]`g

5ggYgga Ybh% 'A ]X!HYfa 'HYgh

GhUfhXUH. 'Bch5dd]WVY

@Yb[ h. '&\ci fg

8YHJ]`g.

H\Y'A ]X!HYfa 'HYghfi bg'Zf'rk c'\ci fg'UbX'Wcbg]gh'cZei Ygh]cbg'cb'dfcbi bWU]cbžj cWUvi 'UfmUbX  
[ fUa a Uh]W'dUfhYfbg'Ug'k Y''Ug'Wta dfY\Ybg]cb'ei Ygh]cbg'hc'hYghk \Uh\Ug'VYYb''YUfbh'hi g'ZJF"

: YYXVUW\_k ]''VY'[ ]j Yb]bX]j ]Xi U''m'hYghg\YYhg'k ]''VY'fYh fbYX'hc'mci 'k ]h'a Uf\_g'UbX'Wta a Ybthg"

Hi fb]h]b'gYH]b[ . 'H\]g' ]g'bchU'Hi fb]h]b'Ugg][ ba Ybh

5ggYgga Ybh&. 'DfYgYbhU]cb

GhUfhXUH. 'Bch5dd]WVY

@Yb[ h. 'Hc'VY'Z]bU'gYX'h'fci [ \ 'WUgg'X]gW'gg]cb

8YHJ]`g.

9i dfYgg]b[ 'mci fgY'Z]b'gdYYW'cf'Wcbj YfgU]cb]'b'? cfYUb'VUgYX'cb'hY'gW]dhdfYdUFYX''H\Y'dfYgYbhU]cb  
k ]''VY'Z]a YX'UbX'gi Va ]hYX'Y'YW'fcb]WU''m'H\Y'hc'd]Wgžk \]W'g'g'ci 'X'VY'fY'Yj Ubh'hc'hY'7'ci fgYž'hY'a cXYž  
k \Y'hY'f'gdYYW'cf'Wcbj YfgU]cbž'UbX'fi bb]b[ 'h]a Y'cZ'hY'j ]X'Ycžk \]W'g'g'ci 'X'bchVY'a cfY'h'Ub  
) 'a ]bi h'g' ]b'WUgY'cZgdYYW'UbX'%'\$'a ]bi h'g' ]b'WUgY'cZ'Wcbj YfgU]cbž'UFY'hc'VY'Z]bU' ]gYX'h'fci [ \ 'WUgg  
X]gW'gg]cb"

⊖X]j ]Xi U''ZYXVUW\_/a Uf\_g'UbX'Wta a Ybthg'k ]''VY'Ya U]YX'hc'mci "

Hi fb]h]b'gYH]b[ . 'H\]g' ]g'bchU'Hi fb]h]b'Ugg][ ba Ybh

5ggYgga Ybh' . : ]bU''9i Ua





5df]

		7 cbj YfgUhc
	Hi hcf]U`	DfUW]W`k cfXg`UbX`dUhtYfbg`]b`l` b]h+`Wcb]bi YX"
	Hi hcf]U`	DfUW]W`k cfXg`UbX`dUhtYfbg`]b`l` b]h, "
K YY_- . %& 5df]`!`%* 5df]	@YWh fy	HU_]b[ `UVci hZ` h`fy`d`Ubg""9l dfYgg]b[ `k`UbhgZ` ]bWdUV`]m]UbX`Wcb]Ugfg" `l`g]b[ `XYgW]d]cb]j YfVg" l`b]h-`7 cbj YfgUhc
	Hi hcf]U`	DfUW]W`k cfXg`UbX`dUhtYfbg`]b`l` b]h, \$



g

'F Ygci fWg'

-G\]bž; 'UbX'5'6i nc'k ]h '>MUb[ 'UbX'7'?]a "'f&\$&\$E"'=adMS` [ '3Uf[a` , 4aa] #'K YV  
b"

ca '=adMS` [ '3Uf[a` , 4aa] #'K YV'9X]hcb'UbX'hY'gci bX'Z'Yg'UfY'Uj U]UV'YžZ'YY'cZWUf[ Yž  
Ybtg:]b'5F HG%\* '\$j ]U'A ccX'Y"

hYa [ c'hc'hY'f#YI hVcc\_'a UHyf]U'gfZc'XYf'cb'mci f'A ccX'Y'dU[ Y'UbX'W]W\_'YUW'cZhY'Z'Yg"  
dUfng'cZhY'HYI hVcc\_'9I d'UbU]cbg'UbX'K cf\_Vcc\_žYUW'cZk \]W'W'bg]gh'cZ%\$'i b]hg  
YbYX'UbX'df]bHY'Vm5WcVUhF YUXYf" H\YmUfY ]DUXg'UbX'5bXfc]X'HUV'Yhg'Z]YbX'mf  
[ 'Gci bX'Z'Yg'UfY'Zc'f'hY'9I d'UbU]cbg'dUfHcb'nž'cf[ Ub]gYX']bhc'%'\$'ddh' Z'Ygžk \]W'W'Wb'VY  
\$'Dck YfDc]bH"

WYX'hc'df]bhici hmc'i f'ck b'W'c'mcZhY'HYI hVcc\_'UbX'hc'i gY'hY'gci bX'Z'Yg'Zc'f'ghYb]b[ 'UbX  
dfUW]W'Zc'f'U'a ]b]a i a'cZ'k c'\ci fg'dYf'k YY\_"

h Uh'hYmUfY'U' W'c'dmf][ \hYX'a UHyf]U'g"8c'bchX]ghf]Vi hY'UbmcZhYa 'k ]h'ci h8f'; ]  
k f]hYb'W'c'bgYbH"

XYX'F Ygci fWg'

i>UY'>i b[ 'Gcb[ "'f&\$&\$) E"'FZW=adMS` >S` YgSYW E fdgUfgdW GeWS` V 5a` fWj fž@cbXcb.  
X[ Y"

Y'='C b!]bY'"GY'čb[ '? cfYUb'"Vm?]b[ 'GY'čb[ 'bgh]h hYžGYci 'ž? cfYU"

Gi Va ]gg]cb 'cZ5ggYgga YbhiHUg\_g

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

Ẓmci 'YbWci bHYf'U'dfcV'Ya 'k \Yb'UH'Ya dh]b[ 'hc'gi Va ]hmc i f'Ugg][ ba YbhiH'fci [ \ 'Hi fb]h]bž'd'YUgY  
HY'Yd\cbY'9I HYfbU'Gi ddcfhcb'-', ) " ' ' %cf'Ya U] 'H'Ya 'cb'YI HYfbU'HY'hgi ddcfh4 i bgk "YXi "Ui "'Gi ddcfh  
\ci fg'UfY', .\$\$Ua '—%\$. \$\$da 'cb'k YY\_XUmg'UbX'-. .\$\$Ua '—) . \$\$da 'cb'k YY\_YbXg'fI \*) 'XUmg'U'mYUfI" Ẓmci  
UfY'i bUV'Y'hc'gi Va ]hmc i f'Ugg][ ba YbhiXi Y'hc'U'Zi 'hk ]H'Hi fb]h]b'mci 'a UmiUdd'mZcf'Ub'YI HYbg]cbž'Vi hmc i  
a i ghfYH]b'mci f'h]W\_Yhbi a VYf'Z'ca '9I HYfbU'Gi ddcfhfU'cb[ 'k ]H'UbmicH'Yf'fY'Yj UbhXcW a YbfgL'hc  
]bWi XY'Ug'Yj ]XYbVW'hc'gi ddcfhmc i f'YI HYbg]cb'Udd'jW]h]cb" Ẓmci 'Ya U]'9I HYfbU'Gi ddcfhmc i 'k ]`  
Ui hca UH]W]`mfYW]j Y'U'h]W\_Yhbi a VYfž'Vi h]Zmci 'HY'Yd\cbY'mci 'k ]` i 'c WZW]`mfg\_g cf'UbY'"

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

D`U[ ]Uf]ga `]g`i`g]b[ `h`Y`k`c`f`X`g`c`f`]X`Y`U`g`c`Z`c`h`Y`f`g`i`U`b`X`d`f`Y`g`Y`b`h]b[ `h`Y`a` `U`g`m`c`i`f`c`k`b`" `#`W`U`b`h`U`\_`Y`a` `U`b`m`  
Z`c`f`a`g`Z`Z`c`a` `X`Y`]V`Y`f`U`h`Y` `W`X`Y`U`h]b[ `h`c` `U`W`W`Y`X`Y`b`h`U` `m`i`W`c`d`m]b[ `Z`c`a` `U`g`c`i`f`W` `k` ]h`c`i`h`U`W`\_`b`c`k` `Y`X[ `Y`a` `Y`b`h`

I`B`G`K` `[`f`c`i`d`g`d`U[ ]Uf]ga `]b`h`c` `h`Y` `Z`c` `c`k` ]b[ `W`U`h`Y`[`c`f`]Y`g.

- i bXYfgHUbX'mci f'f][ \hg'UbX'fYgdcbg]V] ]hYg'Ug'U'gh XYbhUhl BGK
-

## 5 WUXYa ]WbZcfa Uh]cb

: cf`YggYbh]U`gh XYbh]bZcfa Uh]cb`fY`Uh]b[ `tc.

- fYei Ygth]Zcf`YI H`bg]cb/
- `UhY`gi Va ]gg]cbg`[ i ]XY`]bYg/
- fYj ]Yk `cZa Uf\_g/
- I B GK `<YU`h`UbX`GUZY`midc`]WYg/
- YI Ua ]bUh]cb`dfcW`Xi fYg/
- gdYW]U`W`bg]XYfUh]cb`]b`hY`Yj Ybhcz]`bYgg`cf`a ]gUXj Ybh fY/
- gh XYbhYei ]mUbX`X]gUV`]m/
- UbX`chYf`YggYbh]U`UWUXYa ]W]bZcfa Uh]cbz`gYY