



## ARTS4249

HYfa`Cby`#`&\$%-

HYfa`Cby`#`&\$%-

7 ci fgY`Cj Yfj ]Yk

`GHZZ7cbhJW`8YHJ`g`

`7cbj Ybcfg`


7ci fgY'8YHJ]`g

7fYX]h'Dc]bHg '\*`

Gi a a UfmcZ\Y'7ci fgY

5ggYgga Ybh

5ggYgga YbhHUg\_g`

5ggYgga YbhHUg_	K Y][ \h	8i Y'8UHŸ	Gh XYbh@YUfb]b[ Ci hWta Yg'5ggYggYX
@YUfb]b[ 'DcfhZc`]c`	) \$i	, '5df]'`&\$%- ž%*. \$\$	%ž&ž{
9ggUmi	) \$i	%>i `m&\$%- ž%*. \$\$	%ž&ž ž{

5ggYgga Ybh8YHU]`g

5ggYgga Ybh% '@YUfb]b[ 'DcfhZc`]c`

GHUfhXUHŸ. 'Bch5dd`]WUV`Y

@Yb[ h. ( \$\$\$`k cfXg

8YHU]`g. 'Gh XYbftg'XcW a YbhŸY]f'fYgdcbgYg'hc`UbX'UbU'mg]g'cZfYUX]b[ 'a UHŸf]U'g'X]gW ggYX`]b`hY`Z]fgh\*  
k YY\_g'cZŸY`Wci fgY"Gh XYbhia i ghgi Va ]h, \$\$`k cfX'fYgdcbgYg'hc`fYUX]b[ g'VYZcfY`WUgg`]b`('cZ\*`k YY\_g"  
H\cgY'fYgdcbgYg'k ]`VY`fYj ]gYX`UbX`fYgi Va ]HŸX`UhŸY`YbX'cZk YY\_ , `k ]h`Ub`UXX]h]cbU` , \$\$\$`k cfX



F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

@]ghcZk YY\_mfYUX]b[ g'dfcj ]XYX`Uh\Y`g]UfhcZHYfa` %cb`hY`A ccX`Y`Wci fgY`dU[ Y"

F YWca a YbXYX`F Ygci fWg

5XX]h]cbU`fYWca a YbXYX`fYUX]b[ g'cb`hY`hcd]Wg`Wci YfYX`]b`K`YY\_g`&`h`\*`UfY`Uj`U]`UV`Y`cb`A`ccX`Y`Wci fgY`dU[ Y"

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

:`cfa`U`ZYXVUW`Zca`ghi`XYbfg`k`]`VY`Wc`YWYX`j`]U`a`m9I`dYf]YbWf`UbX`k`]`VY`i`gYX`h`]a`dfcj`Y`Z`h`fY`]h`fU]h]cbg`cZ\]g`Wci`fgY`"`#Zcfa`U`ZYXVUW`]g`U`gc`j`Yfmk`Y`Wca`Y"

Gi Va ]gg]cb`cZ5ggYgga YbhHUg\_g

Gi Va ]gg]cb`cZ5ggYgga YbhHUg\_g

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

Ẓmci `YbWci bhYf`U`dfcV`Ya `k \Yb`U`H`Ya dh]b[ `hc`gi Va ]hmc`i f`Ugg][ ba YbhHfci [ \`Hi fb]h]bžd`YUgY  
H`Yd\cbY`9I H`fbU`Gi ddcfhcb`-` , ) `` `` ` %cf`Ya U]`H`Ya `cb`YI H`fbU`H`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`mYUfL` Ẓmci  
UfY`i bUV`Y`hc`gi Va ]hmc`i f`Ugg][ ba YbhXi Y`hc`U`ZU`i`hik ]H`Hi fb]h]b`mci `a UmiUdd`miZc`f`Ub`YI H`bg]cbžVi hmc`i  
a i ghfYH]b`mci f`h]W`Yhbi a VYf`Zca `9I H`fbU`Gi ddcfhfU`cb[ `k ]H`UbmchYf`fY`Yj UbhXcW a Ybhgk`hc  
]bWi XY`Ug`Yj ]XYbW`hc`gi ddcfhmci f`YI H`bg]cb`Udd`]W]h]cb" Ẓmci `Ya U]`9I H`fbU`Gi ddcfhmci `k ]`

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

D`U[ ]Uf]ga `]g`i g]b[ `hY`k cfXg`cf]XYUg`cZchYfg`UbX`dfYgYbh]b[ `hYa `Ug`mci f`ck b" `hWUb`hU`Y`a Ubm  
Zcfa gž`Zca `XY`]VYfUHY`WXYU]b[ `hc`UWV]XYbhU`mW`dm]b[ `Zca `U`gci fW`k ]h`ci hUW\_bck`YX[ Ya Ybh`

I BGK `[ fci dg`d`U[ ]Uf]ga `]bhc`hY`Zc`ck ]b[ `WUHY`[ cf]Yg.

7 cdm]b[ .`i g]b[ `hY`gUa Y`cf`j Yfmg]a ]Uf`k cfXg`hc`hY`cf][ ]bU`hYI hcf]XYU`k ]h`ci hUW\_bck`YX[ ]b[ `hY`  
gci fW`cf`i g]b[ `ei chU]cb`a Uf\_g" `H\]g`U`gc`Udd`]Yg`hc`]a U[ Ygž`UfhUbX`XYg][ b`dfc`YWgž`Ug`k Y`Ug`  
dfYgYbhU]cbg`k \YfY`gca YcbY`dfYgYbh]g`UbchYf`g`]XYUg`cf`k cfXg`k ]h`ci hWYX]h`

hUddfcdf]UHY`dUfUd`fUg]b[ .`7`Ub[ ]b[ `U`ZYk`k cfXg`UbX`d`fUgYg`k`Y`a cghmifYU]b]b[ `hY`cf][ ]bU`  
ghfi W`fY`UbX`#`f`dfc[ fYgg]cb`cZ]XYUg`cZ`hY`cf][ ]bU`ž`UbX`]bZcfa U]cb`k ]h`ci hUW\_bck`YX[ Ya Ybh`H\]g`U`gc`  
Udd`]Yg`]b`dfYgYbhU]cbg`k \YfY`gca YcbY`dUfUd`fUgYg`UbchYf`g`]XYUg`cf`k cfXg`k ]h`ci hWYX]hU`bX`hc`  
d]YW]b[ `hc[ YhYf`ei chYg`UbX`dUfUd`fUgYg`]bhc`U`bYk`k \c`Yž`k ]h`ci hUddfcdf]UHY`fYZYfYbW]b[ "

7 c`i g]cb.`k cf\_]b[ `k ]h`chYfg`Vi hdUgg]b[ `cZ`hY`k cf\_]Ug`U`dYfgcb`g`]bX]j ]Xi U`k cf\_]7 c`i g]cb`U`gc`  
]bWi XYg`dfcj ]X]b[ `mci f`k cf\_]hc`UbchYf`gh`XYbhVYZc`fY`hY`Xi Y`XUHYž`cf`Zc`f`hY`di fdcgY`cZ`hY`a



- i bXYfghUbx'mci f'f][ \hg'UbX'fYgdcbg]V]h]Yg'Ug'U'gh XYbhUhl BGK
- VY'Uk UfY'cZd'U[ ]Uf]ga ž'Wc'dmf][ \hž' BGK 'Gh XYbh7cXY'cZ7cbXi W'Ubx'5W'W'dhUV'Y'I gY'cZ I BGK '⇒H'F'Ygci f'W'g'Dc`]W'h
- VY'Uk UfY'cZ'Y'ghUbxUfXg'cZVY\Uj ]ci f'YI dY'W'X'cZYj Yfmcby`]b'h'Y'I BGK 'W'a a i b]m
- 'cW'W'h'gYfj ]W'g'UbX' ]bZ'fa U]cb'UVci hl BGK 'UbX'I BGK '@]VfUfm

Gca Y'cZ'Y'gY'UfY'Ug'k ]''VY'ZJa ]]Uf'hc'mci ž'c'h'Yfg'k ]''VY'bYk "; U]b]b[ 'U'gc`]X'i bXYfghUbx]b[ 'cZU''h'Y fY'UH'X'UgdY'W'g'cZ9@-G9'k ]''\Y'd'mci 'a U\_Y'h'Y'a cgh'cZ'mci f'gh X]Yg'Uhl BGK ""

[\h'hd.##gi V'Y'W'i \]X'Yg" \]VfUfm'i bgk "YXi "Ui #' \]gY#\]Vci h' \]gY](#)

5 WUXYa ]WbZcfa Uh]cb`

: cf`YggYbh]U`ghi XYbh]bZcfa Uh]cb`fY`Uh]b[ `rc.

- fYei Ygh]Zc`fYI h`bg]cb/
- `Uh]`gi Va ]gg]cbg`[ i ]XY`]bYg/
- fYj ]Yk `cZa Uf\_g/
- I BGK `<YU`h`UbX`GUZY`midc`]WYg/

