



# SOCW4015

< cbc i fg 'F YgYUfVX 'H\Yg]g

HYfa 'C.bY''##'&\$%-

7ci fgY`Cj Yfj ]Yk

`GHZZ7cbhJW`i8YhJ]`g`

`7cbj Ybcfg`


7ci fgY'8YHJ]`g

7fYX]hDc]bhr`\*`

Gi a a UfmcZ\hY'7ci fgY

H\Y'6UW\Y`cf'cZGcW]U`K cf\_`fk`cbci fgk`dfc[ fUa `dfcj ]XYg`ghi XYbhr`hY`cddcfhi b]mhr`XYa cbghfUHY`  
YUfb]b[ `]b`UXj UbW\X`\_bck`YX[ Y`UbX`g\_]`g`fYei ]fYX`Zc`fYgYUfW\`]b`gcW]U`k cf\_`cf`U`fY`UH\X`Y`U`h`#`Y`Z]fY`  
UfYU`H\Y`<cbci fg`F`YgYUfW\`H\Yg]g`Wci fgY`GC`7`K`(\$%)`]g`hY`W`b`f`U`Z`W`g`c`Z`@`j`Y`(`<cbci fg`]b`GcW]U`  
K`cf\_`Zc`f`h`cgY`ghi XYbhr`k`l`c`g`Y`W`h`c`i`bXYfU`Y`<cbci fg`j`]U`U`F`YgYUfW\`H\Yg]g`H\]g`Wci fgY`]g`VUgYX`  
cb`U`gi`ghU]bYXZ`]b!XYdh`gh`XmcZfU]b]b[ `]b`fYgYUfW\`a`Y`h`c`X`g`UbX`XYg][`b`]b`hY[ fUH\X`h`fci [ `l`ci`h`h`Y`  
6GK`fk`cbg`k`d`f`c[ fUa ``Gh`XYbhr`k`]`VY`]bX]j`]Xi`U`mgi`ddcfh`X`VmUb`UW\XYa`]Wgi`dYfj`]gcf`h`c`i`bXYfU`Y`U`  
%&Z\$`\$`k`cfX`]bXYdYbXYbhYa`d]f]W]`cf`W`b`W`d`h`U`fYgYUfW\`d`f`c`Y`W`h`]b`h`Y`]f`U`f`Y`U`c`Z`]b`h`f`Y`g`h`Y`]h`Y`f`  
U`cb[ g]XY`h`Y`f`:`ci`f`h`@`j`Y`D`UW`a`Y`b`h`c`f`g`i`V`g`Y`e`i`Y`b`h`c`h`Y`W`c`a`d`Y`h`c`b`c`Z`h`Y`D`UW`a`Y`b`h`]b`Gi`a`a`Y`f`  
g`Y`a`Y`g`h`f`H`H\Y`h`Y`g]g`k`]`XYa`cbghfUHY`h`Y`]f`UV`]mUg`U`i`h`c`b`c`a`c`i`g`fYgYUfW\Y`f`g`U`b`X`k`]`U`ck`gh`XYbhr`h`c`  
d`f`c`W`Y`X`X`]f`Y`W`h`m`h`c`U`D`f`c`Z`g`g]c`b`U`8`c`W`c`f`U`h`Y`]b`GcW]U`K`cf\_`cf`c`h`Y`f`fYgYUfW\`XY[ fYYg"

7ci fgY`@YUfb]b[ `Ci hWca Yg

%": cfa i`UH`U`fYgYUfW\`ei`Y`g`h`c`b`Z`c`f`U`d`U`f`h`W`U`f`W`c`b`h`Y`i`h`c`f`fYgYUfW\`]g`g`i`Y`UbX`^`g`h`Z`m`h`Y`  
Uddfcdf]UH`a`Y`h`c`X`c`c[ mUbX`fYgYUfW\`a`Y`h`c`X`g`  
&`→XYbh]ZmUbX`UbU`mgY`W`h`W]`m`h`Y`X]ZYfYbh`h`Y`c`f`Y`h`W]`d`Y`f`g`d`Y`W`h`j`Y`g`h`U`h`a`U`m]b`Z`i`Y`b`W`h`Y`  
fYgYUfW\`d`f`c`W`g`g`UbX`U`f`Y`U`c`Z`g`h`X`m`  
'`" `8Ya`cbghfUHY`U`k`U`f`Y`b`Y`g`g`c`Z`l`c`k`m`c`i`l`U`j`Y`]a`d`Ya`Y`b`h`Y`X`U`b`Y`h`]W]`fYgYUfW\`d`f`c`W`g`g`  
(`" `9I`YW`h`U`fYgYUfW\`d`f`c`Y`W`h`h`U`h`X`Y`a`cbghfUHY`g`h`Y`W`b`]W]`g`\_]`]b`fYgYUfW\`a`Y`h`c`X`g`UbX`fYgYUfW\`  
XYg][`b`c`f`U`h`f`b`U`h`j`Y`m`g`\_]`]b`[`Y`b`Y`f`U`h`]b[ `W`c`b`W`d`h`U`U`b`U`mgY`g`h`c`fYZYW`h`c`b`h`Y`fYgYUfW\`]g`g`i`Y`  
W`X`c`g`Y`b`  
)`" `7cbghfU`W`h`U`h`Y`g]g`k`l`W`X`Y`a`cbghfUHY`g`g`W`X`c`U`f`m`W`d`U`V`]m`

HYUW\]b[ `GhfUH[ ]Yg`

5g`gh`XYbhr`UfY`i`bXYfU`\_]b[ `Ub`]bXYdYbXYbhYfYgYUfW\`d`f`c`Y`W`h`k`l`Y`f`Y`h`Y`m`k`]`W`X`c`c`g`Y`h`Y`]f`c`k`b`fYgYUfW\`  
gdYW]U`m`U`f`Y`U`U`b`X`a`Y`h`c`X`c`c[ mZ`h`Y`m`k`]`VY`]bX]j`]Xi`U`mgi`dYfj`]gYX`VmUb`UW\XYa`]Wgi`dYfj`]gcf`

# 5ggYgga Ybh

## 5ggYgga YbhHUg\_g`

5ggYgga YbhHUg_	K Y][ \ h	8i Y'8UH	Gh XYbh@YUfb]b[ Ci hWta Yg'5ggYggYX
<cbci fg'F YgYUfWk 'H\Yg]g`	%%\$i	Bch5dd`]WUVY	%z&Z ž( ž)

## 5ggYgga Ybh8YHU]`g

5ggYgga Ybh%`<cbci fg'F YgYUfWk 'H\Yg]g`

GhUfhXUH. `Bch5dd`]WUVY

8YHU]`g. `Gh XYbhg`UfY`fYei ]fYX`hc`i bXYfU\_Y`U`%\$`!%&Z\$\$\$`WcbWdh`U`cf`Ya`d]f]WU`fYgYUfWk`dfc`YWh]b`Ub`UfYU`cZ`h`Y]f]b`h`fYgh`fY`UH`X`hc`gc`WU`k`cf`cf`Y`U`h`#`Y`Z`fY`d`f`U`W`W`" `Gh XYbhg`k`j`k`cf`cb`h`]g`dfc`YWh`]b`Y]h`Y`f`g`Ya`Ygh`f`&`m`Y`U`f`(`f`b`f`X`i`U`X`Y`[`f`Y`Y`e`i`j`j`U`Y`b`h`W`b`W`f`f`Y`b`h`k`]h`h`Y`:`ci`f`h`@`Y`j`Y`D`U`W`a`Y`b`h`c`f`c`j`Y`f`h`Y`g`i`V`g`Y`e`i`Y`b`h`G`i`a`a`Y`f`g`Ya`Y`g`h`f`" `Gh XYbhg`k`j`VY`U`c`W`h`X`U`b`U`W`X`Y`a`]W`g`i`d`Y`f`j`]g`c`f`k`l`c`l`U`g`Y`l`d`Y`f`h`g`Y`]b`h`Y`g`h`XYbhg`fYgYUfWk`UfYU`UbX`#`c`f`W`k`g`Y`b`a`Y`h`c`X`c`c`[`m`H`Y`h`Y`g`]g`a`U`f`\_`W`c`a`d`f`]g`Y`g`%`\$`i` `c`Z`h`Y`a`U`f`\_`Z`c`f`G`C`7`K`(``\$`%)`" `Gh XYbhg`k`j`VY`d`f`c`j`]X`Y`X`k`]h`c`b`[`c`]b`[`Z`Y`X`V`U`W`\_`c`b`h`Y`]f`f`Y`g`Y`U`f`W`k`d`f`c`Y`W`h`V`m`h`Y`]f`U`c`W`h`X`g`i`d`Y`f`j`]g`c`f`" `b`U`X`X`]h`c`b`g`h`XYbhg`k`j`f`Y`W`]j`Y`d`Y`Y`f`Z`Y`X`V`U`W`\_`U`g`k`Y`" `U`g`Z`Y`X`V`U`W`\_`Z`f`c`a`h`Y`W`c`b`j`Y`b`Y`f`c`Z`G`C`7`K`(``\$`%)`X`i`f`]b`[`g`Ya`]b`U`f`g`" `9`U`W`k`h`Y`g`]g`k`j`VY`a`U`f`\_`Y`X`V`m`l`k`c`]b`X`Y`d`Y`b`X`Y`b`h`Y`l`U`a`]b`Y`f`g`" `Gh XYbhg`k`j`f`Y`W`]j`Y`U`b`i`a`Y`f`]W`U`[`f`U`X`Y`U`b`X`k`f`]h`Y`b`Z`Y`X`V`U`W`\_`Z`f`c`a`h`Y`Y`l`U`a`]b`Y`f`g`

## 5XX]h]cbU`XYHU]`g.

9UWk`h`Y`g`]g`k`j`VY`a`U`f`\_`Y`X`V`m`l`k`c`]b`X`Y`d`Y`b`X`Y`b`h`Y`l`U`a`]b`Y`f`g`k`l`c`k`j`d`f`c`j`]X`Y`U`X`Y`H`U`]Y`X`f`Y`d`c`f`h`W`c`b`h`U`]b`]b`[`Z`Y`X`V`U`W`\_`U`c`b`[`g`]X`Y`h`Y`a`U`f`\_`Z`c`f`h`Y`h`Y`g`]g`" `H`Y`h`Y`g`]g`a`U`f`\_`W`c`a`d`f`]g`Y`g`%`\$`i` `c`Z`h`Y`a`U`f`\_`Z`c`f`G`C`7`K`(``\$`%)`" `Gh XYbhg`Z`]b`U`a`U`f`\_`Z`c`f`G`C`7`K`(``\$`%)`k`j`VY`h`Y`U`j`Y`f`U`[`Y`c`Z`h`Y`h`k`c`a`U`f`\_`g`U`k`U`f`X`Y`X`V`m`Y`U`W`k`9`l`U`a`]b`Y`f`i`b`Y`g`g`h`Y`f`Y`]g`a`c`f`Y`h`U`b`U`\*`!`a`U`f`\_`X`]Z`Y`f`Y`b`W`U`h`k`l`]W`k`d`c`]b`h`U`h`]f`X`Y`l`U`a`]b`Y`f`a`U`m`V`Y`U`d`d`c`]b`h`Y`X`"

5 hYbXUbW'F Yei ]fYa Ybhg


F Ygci fWg

DfYgWfjVYX`F Ygci fWg`

F YWca a YbXYX`F Ygci fWg

7ci fgY`9j U`i Uhcb`UbX`8Yj Y`cda Ybh

Gi Va ]gg]cb`cZ5ggYgga YbhHUg\_g

Gi Va ]gg]cb`cZ5ggYgga YbhHUg\_g

Hi fb]hb`Gi Va ]gg]cb

≠mci`YbWci`bhYf`U`dfcV`Ya`k`Yb`U`H`Ya`dh]b[`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybh`h`fci`[`\`Hi`fb]hb`z`d`Y`Ug`Y`  
H`Y`d`l`cb`Y`9I`H`fb`U`Gi`ddcfh`cb`-`,`)`"``"``%`cf`Ya`U]`h`Ya`cb`YI`H`fb`U`H`h`gi`ddcfh`4`i`bgk`"YXi`"Ui`"Gi`ddcfh`  
`l`ci`fg`UfY`,`.\$\$Ua`-`%\$.\$\$da`cb`k`YY`XUmg`UbX`-`.\$\$Ua`-`).\$\$da`cb`k`YY`YbXg`f`l`\*)`XUmg`U`m`Y`Uf`l`"≠mci`  
UfY`i`bUV`Y`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybh`Xi`Y`hc`U`Z`U`h`k`]h`Hi`fb]hb`mci`a`Um`Udd`m`Z`f`Ub`YI`H`bg]cb`z`Vi`hmc`i`  
a`i`gh`f`Y`h]b`mci`f`h]W`Y`h`bi`a`VY`f`Z`ca`9I`H`fb`U`Gi`ddcfh`f`U`cb[`k`]h`Ub`m`c`h`Y`f`f`Y`j`Ub`h`X`c`W`a`Y`b`h`g`l`hc`  
]b`W`i`X`Y`U`g`Y`j`]X`Y`b`W`hc`gi`ddcfh`mci`f`YI`H`bg]cb`Udd`]W`h]cb"≠mci`Ya`U]`9I`H`fb`U`Gi`ddcfh`mci`k`]`  
Ui`hc`a`U`h]W`m`f`Y`W`]j`Y`U`h]W`Y`h`bi`a`VY`f`z`Vi`h]Z`mci`H`Y`d`l`cb`Y`mci`k`]`b`Y`Y`X`hc`gd`Y`W`Z`W`m`U`g`\_`Z`f`cb`Y`  
Hi`fb]hb`U`gc`d`fc`j`]X`Y`g`i`d`X`U`H`Y`g`i`cb`h`Y`j`f`g`m`g`h`Ya`g`h`U`h`g`i`cb`H`k`]h`Y`f`"

;`Yb`Y`f`U`m`z`Ugg`Y`gga`Y`bh`h`U`g`\_`g`a`i`gh`V`Y`gi`Va`]h`Y`X`Y`Y`W`f`cb]W`m`j`]U`Y`]h`Y`f`Hi`fb]hb`cf`U`A`cc`X`Y`  
Ugg][`ba`Y`b`h`h`b`]b`g`h`U`b`W`g`k`Y`f`Y`h`l`g`]g`b`c`h`i`d`c`g`g]V`Y`z`]h`k`]`V`Y`g`h`U`h`X`i`cb`mci`f`W`ci`fg`Y`g`A`cc`X`Y`g`]h`k`]h`  
U`h`f`b`U`h]j`Y`gi`Va`]gg]cb`X`Y`h]g`"

:`cf`]b`Z`c`fa`U`h]cb`cb`l`ck`hc`gi`Va`]h`Ugg][`ba`Y`b`h`g`i`cb`]b`Y`j`]U`A`cc`X`Y`.\`h`td`g`#`g`h`X`Y`b`h`i`bgk`"YXi`"Ui`#`ack`!  
gi`Va`]h`Ugg][`ba`Y`b`h`a`cc`X`Y`"

## 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" #WUbb'U\_Y'a Ubm Zcfa gZ Zca 'XY'VYfUHY'WXUhf]b[ 'hc'UWVXYbhU`mWcdm]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.

7cdm]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[ YgZ'UfhUbX'XYg][ b'dfc'YWgZ'Ug'k Y`'Ug dfYgYbhU]cbg'k \YfY'gca YcbY'dfYgYbhg'UbchYf'g']XYUg'cf'k cfXg'k ]h'ci hW'YX]h'

#Uddfcdf]UHY'dUfUd\fUg]b[ .7 \Ub[ ]b[ 'U'Zk 'k cfXg'UbX'd\UgYg'k \]Y'a cghmifYU]b]b[ 'hY'cf][ ]bU'gf'i W'fY'UbX#cf'dfc[ fYgg]cb'cZ]XYUg'cZ'hY'cf][ ]bU'z'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 hW'YX]h'UbX'hc d]YW]b[ 'hc[ Y'hYf'ei chYg'UbX'dUfUd\fUgYg']bhc'U'bYk 'k \c'Yz'k ]h'ci hUddfcdf]UHY'fYZYfYbW]b[ "

7c`i g]cb.'k cf\_]b[ 'k ]h'c'hYfg'Vi hdUgg]b[ 'cZ'hY'k cf\_'Ug'U'dYfgcb'g' ]bX]j ]Xi U'k cf\_"7c`i g]cb'U'gc ]bWi XYg'dfcj ]X]b[ 'mci f'k cf\_'hc'UbchYf'gh'XYbhVYZ'fY'hY'Xi Y'XUHY'z'cf'Z'f'hY'di fdcgY'cZ'hYa d`U[ ]Uf]g]b[ 'UhUbm]h]a Yz'dUm]b[ 'UbchYf'dYfgcb'hc'dYfZcfa 'Ub'UWUXYa ]W]Ug\_z'ghYU']b[ 'cf'UW'ei ]f]b[ UbchYf'dYfgcb'g'UWUXYa ]Wk cf\_'UbX'Wcdm]b[ ]h'cZ'Zf]b[ 'hc'Wca d'Yh'UbchYf'dYfgcb'g'k cf\_'cf'gYY\_]b[ dUma YbhZ'f'Wca d'Yh]b[ 'UWUXYa ]Wk cf\_"

#Uddfcdf]UHY'W]U]cb.'7 ]h]b[ 'gci fW'g'k \]W\Uj Y'bchVYYb'fYUXz'k ]h'ci hUW\_bck 'YX[ ]b[ 'hY'`gYWcbXUfm' gci fW'Zca 'k \]W'\_bck 'YX[ Y'cZ'hYa '\Ug'VYYb'cVhU]bYX"

8i d']WU]cb'f'fY'Zd`U[ ]Uf]ga "L'gi Va ]h]b[ 'mci f'ck b'k cf\_z']b'k \c'Y'cf']b'dUf'z'k \YfY']h\Ug'dfYj ]ci g'm VYYb'dfYdUfYX'cf'gi Va ]h]X'Z'f'UbchYf'UggYgga Ybhcf'W'ei fgY'Uhi BGK 'cf'UbchYf'i b]j Yfg]m'

7cffYW'fYZYfYbW]b[ 'dfUW]W'g.

- DUfUd\fUg]b[ žgi a a Uf]g]b[ žYggUmk f]h]b[ 'UbX'h]a Y'a UbU[ Ya Ybh
- 5ddfcdf]UHY'i gY'cZUbX'Uhf]Vi h]cb'Z'cf'U'fUb[ Y'cZa UHYf]U'g' ]b\$

%o

U,



- i bXYfgHUbX'mci f'f][ \hg'UbX'fYgdcbg]V] ]hYg'Ug'U'gh XYbhUhl BGK
- VY'Uk UfY'cZd'U[ ]Uf]ga ž'Wcdmf][ \hž' BGK 'Gh XYbh7cXY'cZ7cbXi WñUbX'5WwdfUV'Y'I gY'cZ  
I BGK '⇒H'F Ygci fW'g'Dc`]Wñ

5 WUXYa ]WbZcfa Uh]cb`

: cfYggYbh]U`ghi XYbh]bZcfa Uh]cb`fY`Uh]b[ `hc.

- fYei Yghg`ZcfYI hYbg]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`dfcVWXi fYg/
- gdYW]U`Vc]bg]XYfUh]cb`]b`hY`Yj Ybhcz]`bYgg`cf`a ]gUXj Ybh fY/
- ghi XYbhYei ]hmUbX`X]gUV`]`]m/
- UbX`chYfYggYbh]U`UWUXYa ]W]bZcfa Uh]cbz`gYY

[\hfdg.#k k k "Ufmg"i bkg "YXi "Ui #W ffYbhghi XYbh\]bZcfa Uh\]cb`dfc\]Vc`g!\[ i \]XY`\]bYg#](#)

⇒ U[ Y`7 fYX]h

GmbYf[ ]Yg`]b`Gci bX`&\$%\*`

7F ⇒ CG

7F ⇒ CG`Dfcj ]XYf`7 cXY. '\$\$\$- , ;