

# **INST2003**

FYgYUfWX A Yh\cXg`]b`=bhYfbUh]cbU``Gh X]Yg

HYfa 'CbY''##'&\$&%

GW.cc``cZ<iaUb]Mg'UbX'@Ub[iU[Yg`'##'IBGK '5fng'UbX'GcWU''GWMg

# 7cifgY<sup>·</sup>8YHJ]`g

## 7 fYX]hDc]bhg\*\*\*

## Gi a a UfmcZh\Y'7ci fgY

H\]g Wei fgY k ]``Yei ]d mei k ]h. U'gYhcZfYgYUfW a YhcXg\_]`g"H\Y Wei fgY ZeW gYg cb'H/UW ]b[ '\ck 'he i bXYfHJ\_Y UbX UbU'mgY fYgYUfW a YhcXg'h fei [ \ YI dYf]YbhJU``YUfb]b[ 'UbX'h Y i gY cZWbH/a dcfUfmUbX ZJa ]`]Uf WUgY gh XmYI Ua d`Yg cZfYgYUfW hed]Wg fY`Yj Ubhie ]bH/fbUhJebU`gh X]Yg"K Y'k ]```[Yhei hcZh Y WUggfeea 'UbX'dfUWf]Wf k \Uhk Y`UfY ``YUfb]b[ "H\Y Wei fgY'k ]```]bhfeXi Wf Veh 'hfUX]hJebU`a Yh cXg fEcf YI Ua d`YžX]gWei fgY`UbU`mg]gžgi fj Ymg`UbX']bH/fj ]Yk gEUg k Y```Ug`]bbcj Uhj Y`a Yh cXg h UhXfUk 'cb'h Y UZYW]j Y 'h fb'Ug k Y```Ug'X] ['hU``Yh bc[ fUd\mfZef YI Ua d`YžYa VeX]YX'eVgYfj UhJebZgeb]Wa ej Ya YbhZd\ene Y`]WJHJeb'UbX`[ YeI HU[ ] b[ E'' I bXYfd]bb]b[ 'h ]g'h ]h]eb'eZfYgYUfW a Yh eXg`]g'h Y fUhJebUY Zef [ YbYfUhJb[ XUhU'h fei [ \ fYgYUfW a Yh eXg`]b 'h Y Zfghd`UWF''5``fYgYUfW a Yh eXg`]g'h Y fUhJebUY Zef [ YbYfUhJb[ XUhU'h fei [ \ fYgYUfW a Yh eXg`]b 'h Y Zfghd`UWF''5``fYgYUfW a Yh eXg`]g'h Y fUhJebUY Zef [ YbYfUhJb[ XUhU'h fei [ \ fYgYUfW a Yh eXg`]b 'h Y Zfghd`UWF''5``fYgYUfW i bXYfhJ\_Yb'k ]h 'dYed'Y ]b ']bh/fbUhJebU' 'UbXgWUdYg'k ]```]bj e'j Y'fYgYUfW a Yh eXg'he i bXYfgHbX'h Y`]bh/fUWJebgža eV]`]hJYgža eX]ZJWJhJebgž UhhUW a Ybhg`UbX'ZYY`]b[ g'hežUbX'UVei hh\egy ``UbXgWUdYg"'H\]g'Wei fgY'k ]``Yei ]d`mei 'k ]h 'h Y g\_]``g'he WebXi WhfYgYUfW a Yh eXg`mei fgY`ZVi h]hk ]``U`ge'XYj Y`ed'mei f`Uk UfYbYgg'eZ\ek 'h Y`XUhU'mei i gY`]g [ YbYfUh/Xž'Ug'K Y```Ug'dfej ]X]b[ 'h Y`Webh'I h U`Zei bXUhJeb']b fYgYUfW. Yh ]Wg`UbX'fYgYUfWXYf'deg]hebU`]mf

## 7cifgY`@YUfb]b[`CihWcaYg

# 5ggYgga Ybh

## 5ggYgga YbhHUg\_g

5ggYgga YbhˈtJg_	K Y][ \h	8iY'8UHY	GhiXYbhi@YUfb]b[ CihWcaYgʻ5ggYggYX
DfYgYbłUł]cb <sup>°</sup>	%) I	K YY_g" "UbX"(	%ž' &ž''
@]hYfUhifY"FYj]Yk"	(\$1	\$+#\$(#&\$&%`\$(.\$\$`DA	) Ž`*
FYgYUfW\`DfcdcgU``	()।	&-#\$(#&\$&%`\$(.\$\$`DA	%ž`&ž`' Ž`( Ž`) Ž`*

## 5ggYgga Ybh8YHJ]`g

#### 5ggYgga Ybh% DfYgYbhUh]cb

Ghufhxuhy.Bch5dd`]WUV`Y

@Yb[h\." a ]bi hYg

### 8 YHJ]`g.

€X]j ]Xi U`' !a ]bi hY fYgYUfW. hcd]WdfYgYbhUh]cb"

DYYf<sup>-</sup>fYj ]Yk ž<sup>-</sup>k f]<del>hY</del>b<sup>-</sup>ZYYXVUW<u>ž</u>'UbX<sup>-</sup>h hcf<sup>-</sup>k f]hHyb<sup>-</sup>ZYXVUW<u></u>i g]b[ <sup>-</sup>fi Vf]W

Hi fb]h]b`gYh]b[.`H\]g`]g`bchU`Hi fb]h]b`Ugg][ ba Ybh

5ggYgga Ybh& @]hYfUh fY F Yj ]Yk

GHUfhXUhY. Bch5dd`]WUV`Y

@Yb[h\.'%)\$\$`k cfXg

#### 8YHJ]`g.

%) \$\$!k cfX``]hYfUhi fY`fYj ]Yk `cb`h\Y`gY`YWhYX`hcd]W'

K f]hhyb'ZYYXVUW\_VUgYX'cb'fi Vf]WZcf'h\Y'UggYgga Ybh'

Hi fb]h]b'gYh]b[.`H\]g'Ugg][ ba Ybh]g'gi Va ]hYX'h\fci [\`Hi fb]h]b'UbX'gh XYbhg'Xc'bchgYY'Hi fb]h]b g]a ]`Uf]hmifYdcfhg"

5ggYgga Ybh'. FYgYUfWX DfcdcgU`

GhUfhXUhY.Bch5dd`]WUV`Y

@Yb[h\.\*&\$\$\$

### 8YHJ]`g.

&\$\$\$!k cfX`fYgYUfW\`dfcdcgU``cb`h\Y`gY`YWhYX`hcd]W'

K f]HYb`ZYYXVUW\_`VUgYX`cb`fi Vf]WZcf`H\Y`UggYgga YbH'

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

## FYgci fWg

## DfYgWf]VYX F Ygci fWyg

₽Zcfa Uhjcb Uj Uj`UV`Y`cb`A ccX`Y

## FYWca a YbXYX FYgci fWYg

≠bZcfa Uh]cb<sup>·</sup>Uj U]`UV`Y<sup>·</sup>cb<sup>·</sup>A ccX`Y<sup>·</sup>

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

7 ci fgYgʻUfYʻdYf]cX]WU``mfYj ]Yk YXʻUbXʻghi XYbhgʻZYYXVUW\_`]gʻi gYXʻhcʻ]a dfcj Yʻh\Ya "`

: YYXVUW\_`]g`[Uh\YfYX`Zfca `ghi XYbhg`i g]b[`a m9I dYf]YbWf"`=hi]g`YbWci fU[YX`ghi XYbhg`Wca d`YhY`h\Y]f gi fj Ymg`VmUVWVgg]b[`h\Y`dYfgcbU`]gYX`k YV``]b\_`j ]U`h\Y`A ccX`Y`Wci fgY`g]hY"

# Gi Va ]gg]cbcZ5ggYgga YbhHUg\_g

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

Zmci YbWci bhYf'U'dfcV'Ya 'k \Yb'UthYa dhjb[ 'hc'gi Va ]hmci f'Ugg][ ba Ybht\fci [ \'Hi fb]hjbžd'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'fl \*) 'XUmg'U'mYUfŁ''Zmci UfY'i bUV'Y'hc'gi Va ]hmci f'Ugg][ ba YbhXi Y'hc'U'ZJi `hk ]h\'Hi fb]hjb'mci 'a UmUdd`mZcf'Ub'YI hYbg]cbžVi hmci a i ghfYhU]b'mci f'hjW\_Yhbi a VYf'Zfca '9I hYfbU'`Gi ddcfhfU'cb[ 'k ]h\'Ubmch\Yf'fY'Yj UbhXcW a YbhgŁ'hc ]bWi XY'Ug'Yj ]XYbWY hc'gi ddcfhmci f'YI hYbg]cb'Udd`]WUh]cb'''Zmci 'Ya U]`'9I hYfbU'`Gi ddcfhimci 'k ]`` Ui hca UhjWU'`mfYWY]j Y'U'hjW\_Yhbi a VYfž'Vi h]Zmci 'hY`Yd\cbY'mci 'k ]``bYYX'hc'gdYWJZWU``mUg\_'Zcf'cbY" Hi fb]hjb'U`gc'dfcj ]XYg'i dXUhYg'cb'h\Y]f'gmghYa 'gfUhi g'cb'Hk]hYf"

; YbYfU``mž'UggYgga YbhHUg\_g`a i ghVY`gi Va ]HYX`Y`YWfcb]WU``mj ]U`Y]H\Yf`Hi fb]h]b`cf`U`A ccX`Y Ugg][ ba Ybh'`=b`]bgHUbWfg`k \YfY`H\]g`]g`bchdcgg]V`Yž`]hk ]```VY`gHUHYX`cb`mci f`Wci fgY**'**g`A ccX`Y`g]HY`k ]H\ U`HYfbUh]j Y`gi Va ]gg]cb`XYHU]`g"

: cf`]bZcfa Uh]cb`cb`\ck 'hc`gi Va ]hUgg][ ba Ybhg`cb`]bY`j ]U`A ccX`Y.`\hhdg.##gh XYbh'i bgk "YXi "Ui #\ck! gi Va ]hUgg][ ba Ybha ccX`Y

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

D`U[]Uf]ga `]g`i g]b[`f\Y`k cfXg`cf`]XYUg`cZcf\Yfg`UbX`dfYgYbh]b[`f\Ya `Ug`mci f`ck b"`=fiWUb`hU\_Y`a Ubm Zcfa gžZfca `XY`]VYfUHY`W\YUh]b[`fc`UWN]XYbhU``mWcdm]b[`Zfca `U`gci fW'k]h\ci hUW\_bck `YX[Ya Ybh'

I BGK '[fci dg'd`U[]Uf]ga ']bhc'h\Y'Zc``ck ]b[ 'WUhY[cf]Yg.

7 cdm]b[. `i g]b[ `h\Y`gUa Y`cf`j Yfmig]a ]`Uf`k cfXg`hc`h\Y`cf][ ]bU``hYI h`cf`]XYU`k ]h\ci h`UW\_bck`YX[ ]b[ `h\Y

- i bXYfgHJbX'mci f`f][\hg`UbX'fYgdcbg]V]`]h]Yg`Ug'U'ghi XYbh'Uhil BGK
- VY 'Uk UfY 'cZd'U[]Uf]ga ž Wcdmf][ \lž I BGK 'Gh XYbh7cXY 'cZ7cbXi WiUbX '5 WW dhUV'Y 'I gY 'cZ I BGK '=7 H F Ygci fW g'Dc']Wh
- VY Uk UfY cZh Y gHUbXUfXg cZVY Uj ]ci f YI dYWYX cZYj YfmcbY ]b h Y I BGK Wca a i b]m
- `cWUHY'gYfj ]WYg'UbX']bZcfa UHjcb'UVci hI BGK 'UbX'I BGK '@VfUfm

Gca YicZh\YgYiUfYUgik]``VYiZJa]`]Ufihcimci žich\Yfgik]``VYibYk"'; U]b]b[`Uigc`]Xii bXYfgHUbX]b[`cZU```h\Y fY`UhYXiUgdYWfgicZ9@=G9ik]``\Y`dimci ia U\_Yih\Yia cghicZmci fighi X]YgiUhil BGK"' <u>\hhd.#qi VYWfii]XYg"`]VfUfm"i bgk"YXi"Ui #Y`]qY#UVci hY`]qY</u>

## 5WUXYa]W=bZcfaUh]cb

: cf<sup>\*</sup>YggYbhJU<sup>\*\*</sup>gh XYbh<sup>\*</sup>]bZcfa UhJcb<sup>\*</sup>fY<sup>\*</sup>UhJb[<sup>\*\*</sup>hc.

- fYei Yghg Zcf Yl hYbg]cb/
- `UHY`gi Va ]gg]cbg`[ i ]XY`]bYg/
- fYj ]Yk cZa Uf\_g/
- I BGK '<YU`h\`UbX'GUZYhmidc`]W}Yg/
- YI Ua ]bUh]cb'dfcW/Xi fYg/
- gdYWJU`Wcbg]XYfUh]cb`]b`h\Y`Yj YbhcZ]``bYgg`cf`a ]gUXj Ybh fY/
- gh XYbhYei ]mUbX X]gUV]`]m/
- UbX'ch\Yf'YggYbh]U``UWUXYa ]W]bZcfa Uh]cbž'gYY

<u>htdg.#k k k "Ufhg"i bgk "YXi "Ui #W ffYbHgh XYbhg#UWUXYa ]W]bZcfa Uh]cb#dfchcWc`g![i]XY`]bYg#</u>

## ⊨a U[Y<sup>·</sup>7fYX]h

=a U[Y'dfcj]XYX'VmDUi``Aibfc

## 7F*=*7CG

7F=7CG<sup>.</sup>Dfcj]XYf<sup>.</sup>7cXY<sup>.</sup>\$\$\$-,;

## 5W\_bck `YX[ Ya YbhcZ7ci bhfm

K\_Y`UW\_bck\_`YX[Y`f\Y`6YXY[U``dYcd`Y`k\c`UfY`f\Y`ffUX]f]cbU``W\_gfcX]Ubg`cZf\Y``UbXg`cb`k\]W\`L\_BGK ?Ybg]b[[fcb`WJa\_di\_g`]g``cWJfYX"