

# **IEST5021**

7 cfdcfUhjcbgž 7 Ud]hU`]ga ž/ 'HfUbgZcfa ]b[ '9bj ]fcba Ybhg



# 7ci fgY<sup>-</sup>Cj Yfj ]Yk

#### GHJZ7cbHJWh8YHJ]`g

#### 7cbj Ybcfg

BUa Y	9a U]`	5j U]`UV]`]hm	@cWUh]cb	D\cbY
5Ufcb A U[bYf	U"a U[ bYf4 i bgk "YXi "Ui	A YYh]b[ gʻUbX X]gW gg]cb k YʻWta YʻVm Uddc]bha Ybh'	A cfj Yb 6fck b	9a U]` WebrUWh dfYZYffYX

## GWXcc`7cbHJWh ±bZcfa Uh]cb

GWkcc`cZ<iaUb]h]Yg'/ @Ub[iU[Yg

@c\\U||cb. G\\cc``C\\Z|\\\žA\cfj\Yb'6fck\b'6i]\X]b[\z'@\j\Y``&z'&),

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

HY`.'\$&'-'(, '\$(\$\*

9a U]`. \<u>U`4 i bgk "YXi "Ui</u>

## 7ci fgY 8YHJ] g

I b]hg cZ7fYX]h\*\*

Gi a a UfmcZh\Y 7ci fgY

H\]g`Wci fgY`dfcj ]XYg`Ub`cj Yfj ]Yk `cZh\Y`Yj c`i h]cb`cZVi g]bYgg`cf[ Ub]gUh]cbg`UbX`h\Y`dc`]h]WD``YWcbca mcZ WUd]hU`]ga ž'ZcW g]b[ `cb`h\Y`]bhYfd`UmUa cb[ ``Uf[ Y`WcfdcfUh]cbgž[ cj Yfba Ybhgž]bj Yghcfgž'Wcbgi a Yfgž'UbX bcb![ cj Yfba YbhU``cf[ Ub]gUh]cbg`fB; CgŁ'Ug`h\Ym]bhYfgYWik ]h\`h\Y`W]a UhYž'Ybj ]fcba Ybhž'UbX`WJj ]`gcW]Yhm''Mci `k ]```ZcW g`cb``Uf[ Y`a i `h]!bUh]cbU``WcfdcfUh]cbg`UbX`cb`Ya Yf[ ]b[ 'U`hYfbUh]j Y`Zcfa g`cZ

### 5ggYgga Ybh

: i fh\Yf^[i]XUbWY^dfcj]XYX^]b^WUgg^UbX^j]U^A ccX^Y"

5ggYgga Ybh'tUg_	K Y][\h	8iY'8UHY	7 ci fgY @YUfb]b[ Ci hWca Yg 5ggYggYX
%"@jhYfUhi fY"F Yj ]Yk 5gg][ ba Ybh	' \$ı	% '>i bY'&\$&&'%%'))DA	% <u>`</u> ''
&""; fci d'DfYgYblUljcb	&\$I	K YY_`+	%ž <sup>*</sup> &
' "FYdcfh	) \$1	%\$#\$, #&\$&&`%%))	'Ž(Ž)

#### 5ggYgga Ybh% @]hYfUh fY FYj ]Yk 5gg][ ba Ybh

5ggYgga Ybh`Yb[ h\.'%) \$\$'K cfXg 8i Y'XUhY.'% '>i bY'&\$&&'\%')) DA

5 'hchu``cZi d'hc'%) \$\$ 'k cfXg'dfcj ]X]b[ 'U'Wf]h]WU``UbU`mg]g'cZgYhfYUX]b[ g"'

K f]hhyb ZYYXVUW\_dfcj ]XYX"

H\]g Ugg][ ba Ybh]g gi Va ]h\X h\fci [\ Hi fb]h]b UbX gh XYbhg Xc bchgYY Hi fb]h]b g]a ]`Uf]hmfYdcfhg"

5XX]h]cbU`XYhU]`g

GYY'A ccX'Y'Zcf'YI lfU'XYlU]`q"

5ggYgga Ybh&; fci d DfYgYbhUhcb

8i Y'XUhY.'K YY\_'+

K cf\_]b[ ']b'ga U``'hYua gžghi XYbhg'k ]``'i bXYfhU\_Y'U'ga U``'dfcYWhcZWca dUfUhjj Y'UbU'mg]g'cb'WcfdcfUhY Ybj ]fcba YbhU`'gi ghU]bUV]`]hmUbX'fYdcfh]b[ 'UbX'a U\_Y'U'hYua 'dfYgYbhUh]cb'cb'h\Y'`UghXUmZcf'UVci h'&\$ a ]bi hYg'': cf'cb`]bY'ghi XYbhg']bX]j ]Xi U`'dfYgYbhUh]cb'k ]``'VY'a UXY'j ]U'A ccX'Y''

K f]hhyb UbX cfu `ZYYXVUW dfci ]XYX"

H\]g^]g^bchU^Hi fb]h]b^Ugg][ ba Ybh

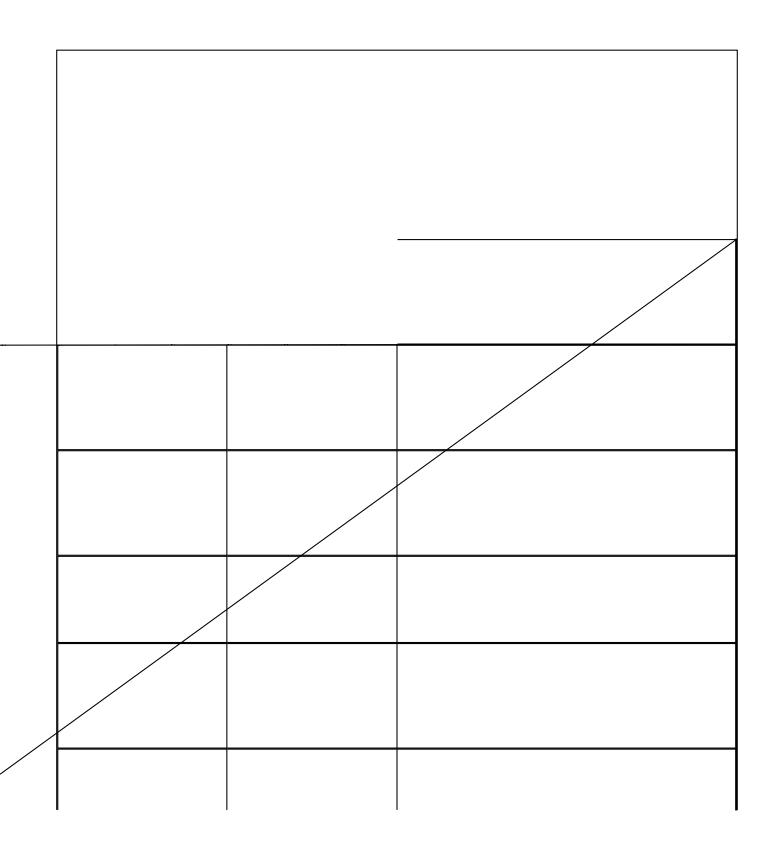
5XX]h]cbU`XYhU]`g

GYY'A ccX`Y'Zcf'YI lfU'XYhU]`g"

5ggYgga Ybh' F Ydcfh

5ggYgga Ybh`Yb[ h\.'' \$\$\$'k cfXg 8i Y'XUhY.'%\$#\$, #&\$&&'%%)) DA 5XX]h]cbU`XYhJ]`g

GYY'A ccX`Y'Zcf'YI lfU'XYlU]`g"



		H\fYY`\cif'V`YbXYX``YV <b>\</b> ifY`UbX`kcf_g\cd`]b gYa]bUf`g <b>lm</b> ìY"
K YY_', .'% '>i `m!'&& >i `m	GYa ]bUf	6!WcfdcfUh]cbgžWccdYfUh]j YgʻUbXʻh\Y Wcaacbg
		H\fYY`\ci f`V`YbXYX``YWn fY`UbX`k cf_g\cd`]b gYa ]bUf`ghm`Y"
K YY_''&) '>i `m!'&- >i `m	GYa ]bUf	HfUbgZcfa ]b[ '9bj ]fcba Ybhg. '7cbgW]ci g 7Ud]hU`]ga 'UbX'BUhi fU`'7Ud]hU`
		H\fYY`\cif'V`YbXYX``YWnfY'UbX`kcf_g\cd`]bgYa]bUf`ghm`Y"
K YY_'%\$.'%'5i [i gh!') 5i [i gh	GYa ]bUf	Dc`]h]\W\'žgc\\]U`ž'UbX'dfch\Ygh'a cj Ya Ybhg'UbX h\Y]f']bZi Yb\\Y'cb'gc\\]Yhm'UbX'\\cfdcfUh\ U\\n]cbg
		H\fYY`\cif'V`YbXYX``YWifY'UbX`kcf_g\cd`]bgYa]bUf`ghm`Y"

FYgci fWyg

# Gi Va ]gg]cb cZ5ggYgga YbhHUg\_g Hi fb]h]b Gi Va ]gg]cb

⊋mci 'YbWci bhYf'U'dfcV'Ya 'k \Yb'UhhYa dh]b[ 'hc'gi Va ]h'mci f'Ugg][ ba Ybh'h\fci [ \'Hi fb]h]bž'd'YUgY MYYd\cbY'91 MyfbU'Giddcfhcb'-',)'''' %cf'Ya U]"h\Ya cb'Yl MyfbU'My'ngiddcfh4 i bgk "YXi "Ui ""Giddcfh \cifg'UfY', .\$\$Ua '-'%\$.\$\$da 'cb'k YY\_XUmg'UbX'-.\$\$Ua '-').\$\$da 'cb'k YY\_YbXg'fl \*) 'XUmg'U'mYUfŁ"'-Zmci UfY'i bUV'Y'ho'gi Va ]h'moi f'Ugg][ ba Ybh'Xi Y'ho'U'ZJi 'h'k ]h\'Hi fb]h]b'moi 'a Um'Udd'm i f'ob'Yl hbgg]cbžVchZmoi

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

D`U[]Uf]ga i]gii g]b[ih\Yik cfXgicfi]XYUgicZch\YfgiUbXidfYgYbh]b[ih\Ya iUgimci fick b"i±i\WbihU\_Yia Ubm Zcfa gžZfca iXYi]VYfUhYiW\YUh]b[ihciU\W]XYbhU`m\Wcdm]b[iZfca iUigci f\Wik ]h\ci hiU\w\_bck iYX[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 Yfmg]a ]'Uf'k cfXg'hc'h\Y'cf][ ]bU`'hYl hcf']XYU'k ]h\ci h'UW\_bck `YX[ ]b[ 'h\Y gci fW' cf'i g]b[ 'ei chUh]cb'a Uf\_g"'H\]g']bWi XYg'Wcdm]b[ 'a UhYf]U`gž']XYUg'cf'WcbW'dhg'Zfca 'U'Vcc\_ž'Ufh]WYž fYdcfhcf'ch\Yf'k f]hhYb XcW a Ybhz'dfYgYbhUh]cbž'Wca dcg]h]cbž'Uffk cf\_ž'XYg][ bž'XfUk ]b[ ž'W]fWi ]hfmž'Wca di hYf dfc[ fUa 'cf'gcZk UfYž'k YVg]hYž']bhYfbYhz'ch\Yf'Y`YWfcb]WfYgci fW'z'cf'Ubch\Yf'dYfgcbfg'Ugg][ ba Ybhk ]h\ci h Uddfcdf]UhY'UW\_bck 'YX[ Ya Ybh''

**₺Uddfcdf]UhY** 'dUfUd\fUg]b[.'

## 5 WUXYa ]W + DZcfa Uhjcb

8 i Y 'hc 'Yj c'j ]b[ 'UXj ]WY 'VmB GK '< YU'th žighi XYbhg'a i gh'WkYW\_'Zcf'i dXUhYX']bZcfa Uh]cb 'fY[ UfX]b[ 'cb`]bY 'YUfb]b[ 'Zcf'U``'5fhgž'8 Yg][ b 'UbX'5fWk]hYWhi fY 'Wci fgYg'th ]g'thYfa 'fJ ]U'A ccX`Y'cf'Wci fgY']bZcfa Uh]cb dfcj ]XYX"Ł

: cf`YggYbhJU``ghi XYbh`]bZcfa UhJcb`fY`UhJb[ 'hc.