



C: LH 8DGEDG6 I>DC

;DGB ,+(F  
I 67A: D; 8DCI: CIH

GRXV

GRce @\* =Z\_R\_TZR] @\_W`c^ReZ`\_

@eV^ -\* =Z\_R\_TZR] JeReV^V\_ed

: ` \_d` JZUReVU JeReV^V\_ed `W FaVcReZ`\_d W`c eYV eYcVV ^`\_eYd V\_UVU JVaeV^SVc /,( . . . , R\_U . . , -5  
%f\_RfUZeVU&

: ` \_d` JZUReVU JeReV^V\_ed `W : ` ^ acVYV\_dZgV @\_T` ^V %C`dd& W`c eYV eYcVV ^`\_eYd V\_UVU JVaeV^SVc /,( . . . ,  
R\_U . . , -5 %f\_RfUZeVU&

: ` \_d` JZUReVU 9R]R\_TV JYVved Rd `W JVaeV^SVc /,( . . . , %f\_RfUZeVU& R\_U Af\_V /,( . . . , %RfUZeVU&

: ` \_d` JZUReVU JeReV^V\_ed `W : RdY =]` h d W`c eYV eYcVV ^`\_eYd V\_UVU JVaeV^SVc /,( . . . , R\_U . . , -5  
%f\_RfUZeVU&

E`eVd e` eYV L\_RfUZeVU : ` \_d` JZUReVU =Z\_R\_TZR] JeReV^V\_ed

XV

.  
/  
0  
1  
2

E6GI >

>I: B ,) ;>C6C8>6A HI 6 I: B : CIH

C: LH 8DGEDG6 I>DC

8DCHDA>96 I: 9 HI 6 I: B : CIH D; DE: G6 I>DCH

%L\_RfUZeVU7 ^Z]Z`\_d( ViTVae aVc dYRcV R ^ ` f\_ed&

	C_dUc	;_b dXU dXbUU ]_^dXc U^TUT HU^dU ] RUB .+' -++- -+,4	
		-++-	-+,4
I VgV_fVd6			
: ZcTf]ReZ`_ R_U dfSdTcZaeZ`_	!	-(, , . !	551
8 UgVceZdZ_X		// .	2,4
: ` _df ^Vc		00-	/43
I VR] VdeReV		. /1	. -4
FeYVc		- ,3	- / .
K`eR] I VgV_fVd	.	.(--3	./0,
FaVcReZ_X ViaV_dVd		%-(-20&	%-( /4&
JV]Z_X( XV_VcR] R_U RU ^Z_ZdecReZgV		%241&	%34-&
; VacVTZReZ`_ R_U R ^ ` ceZkReZ`_		%-20&	%-2.&
@ ^ aRZc ^V_e R_U cVdecfTefcZ_X TYRcXVd	/	%0,&	%.53&
<b fZej ]` ddVd ` W RWWZ]ZReVd	0	%-&	%.&
@_eVcVde %ViaV_dV& Z_T` ^V( _Ve		%4&	0
FeYVc( _Ve	- .	-3	0
@_T` ^V %]` dd& SVW` cV Z_T` ^V eRi %ViaV_dV& SV_VWZe		3 .	%. / .&
@_T` ^V eRi %ViaV_dV& SV_VWZe	- ,	%.1&	. -
EVe Z_T` ^V %]` dd&		03	%. --&
CVdd6 EVe Z_T` ^V ReecZSfeRS]V e` _` _T` _ec` ]Z_X Z_eVcVded		%- /&	%-2&
EVe Z_T` ^V %]` dd& ReecZSfeRS]V e` EVhd : `ca` cReZ` _de` T\Y` ]UVcd		! /0	! %. .3&
EVe Z_T` ^V %]` dd& ReecZSfeRS]V e` EVhd : `ca` cReZ` _de` T\Y` ]UVcd aVc dYRcV6	4		
9RdZT R_U UZ]feVU	!	%,* ,2 !	%,* /5&

KYV RTT` ^ aR\_jZ\_X \_` eVd RcV R\_ Z\_eVXcR] aRce `W eYVdV f\_RfUZeVU T` \_d` ]ZUReVU WZ\_R\_TZR] deReV ^V\_ed\*

C : LH 8DGEDG6 I>DC

8DCHDA>9 6 I : 9 HI 6 I : B : CIH D ; 8DBEG : = : CH>K : >C8DB : \$ADHH%  
%L\_RfUZeVU7 ^Z]Z`\_d&

;\_b dXU dXbUU ]\_^dXc U^TUT  
HU^dU ] RUB .+'  
-++-      -+,4

	-++-	-+,4
EVe Z_T` ^V %]`dd&	!	03 ! % . --&
FeYVc T` ^acVYV_dZgV Z_T` ^V %]`dd&6		
=`cVZX_ TfccV_Tj ecR_d]ReZ` _RU[fde^V_ed	- ,3	%-41&
EVe TYR_XV Z_eYV WRZc gR]fV `W TRdY W]`h YVUXVd <sup>Rk</sup>	% . &	%-0&
9V_VWZe a]R_ RU[fde^V_ed( _Ve <sup>Sk</sup>	4	--
FeYVc T` ^acVYV_dZgV Z_T` ^V %]`dd&	-- /	%-44&
: ` ^acVYV_dZgV Z_T` ^V %]`dd&	-2 ,	%/55&
CVdd6 EVe Z_T` ^V ReecZSfeRS]V e` _`_T`_ec`]]Z_X Z_eVcVded	%- / &	%-2&
CVdd6 FeYVc T` ^acVYV_dZgV %Z_T` ^V & ]`dd ReecZSfeRS]V e` _`_T`_ec`]]Z_X Z_eVcVded	%-3&	01
: ` ^acVYV_dZgV Z_T` ^V %]`dd& ReecZSfeRS]V e` EVhd : `ca`cReZ`_de`T\Y`JUVCd	! - / ,	! %/3 , &

<sup>Rk</sup> EVe `W Z\_T` ^V eRi SV\_VWZe `W \_Z] R\_U !/ ^Z]Z`\_W`c eYV eYcVV ^`\_eYd V\_UVU JVaeV^SVc / , ( . . . , R\_U . , -5( cVdaVTeZgV]j\*

<sup>Sk</sup> EVe `W Z\_T` ^V eRi ViaV\_dV `W !/ ^Z]Z`\_W`c S`eY eYV eYcVV ^`\_eYd V\_UVU JVaeV^SVc / , ( . . . , R\_U . , -5\*

KYV RTT` ^aR\_jZ\_X \_`eVd RcV R\_ Z\_eVXcR] aRce `W eYVdV f\_RfUZeVU T`\_d`]ZUReVU WZ\_R\_TZR] deReV^V\_ed\*

**C: LH 8DGEDG6 I>DC**

**C : LH 8DGEDG6I>DC**

**8DCHDA>96I : 9 HI 6I : B : CIHD ; 86H= ;ADLH**

C: LH 8DGEDG6I>DC

CDI:H ID I=: JC6J9>I: 9 8DCHDA>96I: 9 ;>C6C8>6A HI 6I: B : CIH

CDI: , ) 9 : H8G>EI>DC D; 7JH>C: HH 6C9 76H>H D; EG: H: CI 6I>DC

EVhd : `ca`cReZ`\_ %e`XVeYVc hZeY Zed dfSdZUZRcZVd( qEVhd : `ca`cReZ`\_(r qEVhd : `ca(r eYV q: `^ aR\_j(r qhVr `c qfdr& Zd R X)`SRJ UzgVcdZWVU ^VUZR\_R\_U\_Z`c^ReZ`\_ dVcgZTVd T`^ aR\_j T`^ acZdVU`W SfdZ\_VddVd RTc`dd R cR\_XV`W ^VUZR(Z\_T)fUZ\_X6 UZXZer] cVR] VdeReV dVcgZTVd( dfSdTcaZ`\_ gZUV` dVcgZTVd Z\_ 8 fdecR]ZR( \_Vhd R\_U\_Z`c^ReZ`\_ dVcgZTVd R\_U S` ` \ afS]ZdY\_Z`\*

; fcZ\_X eYV`W fceY bfRceVc `W WzdTR] . . . , (Z\_T`\_VTeZ`\_ hZeY eYV : `^ aR\_j]d dR]V`W Zed EVhd 8^VcZTR DRc\VeZ\_X cVa`ceZ\_X f\_Ze R\_U Zed R\_\_fR] cVgZVh `W Zed cVa`ceRS]V dVX^V\_ed( eYV : `^ aR\_j UVeVc^Z\_VU e` UzDRXXcVXReV Zed ; `h A`\_Vd`aVcReZ\_X dVX^V\_e Rd R dVaRcReV cVa`ceRS]V dVX^V\_e\_Z\_RTT`cUR\_TV hZeY 8TT`f\_eZ\_X JeR\_URcU : `UZWZTReZ`\_%q8J : r& .4, (qJVX^V\_e I Va`ceZ\_X`r GcVgZ`fd]j( eYV WZ\_R\_TZR] Z`c^ReZ`\_W`c eYzD`aVcReZ\_X dVX^V\_e hRd RXXcVXReVU hZeY eYV SfdZ\_VddVd hZeYZ\_eYV EVhd DVUZR `aVcReZ\_X dVX^V\_e R\_U( e`XVeYVc(W`c^VU eYV EVhd R\_U@\_W`c^ReZ`\_ J VcgZTVd cVa`ceRS]V dVX^V\_e` = ] ] `hZ\_X eYV dR]V`W Zed EVhd 8^VcZTR DRc\VeZ\_X SfdZ\_VddZ\_eYV`W fceY bfRceVc `W WzdTR] . . . , R\_U\_Z\_T`\_[f\_TeZ`\_ hZeY eYV : `^ aR\_j]sd R\_\_fR] S fUXVeZ\_X ac`TVdd( eYV : `^ aR\_j UVeVc^Z\_VU eYRe RXXcVXReZ`\_ hRd`\_ ]`\_XVc Raac`acZReV Rd TVceRZ`\_W eYV cV^RZ\_X SfdZ\_VddVd`\_]`\_XVc dYRcVU dZ^Z]Rc VT`\_`^ZT TYRcRtVcZdeZTd\* 8d R cVdf]e( eYV : `^ aR\_j YRd cVgZdVU Zed YZde`cZTR] UzdT]`dfcVd`W`c eYV acZ`c aVcZ`U e` cVW]VTe eYV`\_Vh ; `h A`\_Vd R\_U EVhd DVUZR cVa`ceRS]V dVX^V\_ed\*

+; LCL H@ 6K?L?GM; MCHG

KYV RTT`^ aR\_j Z\_X f\_RfUZeVU T`\_d` ]ZUReVU WZ\_R\_TZR] deReV^V\_ed`W eYV : `^ aR\_j( hYZTY RcV cVWVccVU e` YVcVZ\_Rd eYV q: `^\_d` ]ZUReVU=Z\_R\_TZR] JeReV^V\_ed(r YRgV SVV`acVaRcVU Z`\_RTT`cUR\_TV hZeY XV\_VcR]j] RTTVaeVU RTT`f\_eZ\_X acZ\_TZa]Vd Z\_eYV L\_ZeVU JeReVd`W 8^VcZTR`%q> 8 8Gr&W`c Z\_eVcZ`WZ\_R\_TZR] Z`c^ReZ`\_R\_U hZeY eYV Z\_decfTeZ`\_d e` =`c^ - , )H R\_U 8ceZT]V - , `W I VXF]ReZ`\_ J)O\* @\_eYV`aZ\_Z`\_`W`^R\_RXV^V\_e( R] ] RU[fde^V\_ed T`\_dZdeZ\_X`\_]j`W`c^R] cVTfccZ\_X RU[fde^V\_ed`\_VTVddRc] W`c R WRZc acVdV\_eReZ`\_ YRgV SVV`cVW]VTeVU Z\_eYVdV : `^\_d` ]ZUReVU=Z\_R\_TZR] JeReV^V\_ed\* FaVcReZ\_X cVdf]ed`W`c eYV Z\_eVcZ`aVcZ`U acVdV\_eVU RcV`\_e`\_VTVddRc]j] Z\_UZTReZgV`W eYV cVdf]ed eYRe`^Rj SV Vi aVTeVU`W`c eYV WzdTR] jVRc V\_UZ\_X Af\_V / , ( . . . - \* KYV acVaRcReZ`\_`W eYV : `^ aR\_j]sd : `^\_d` ]ZUReVU=Z\_R\_TZR] JeReV^V\_ed Z`\_T`\_W`c^Ze] hZeY > 8 8G cVbVfZcVd`^R\_RXV^V\_e`^R\ VdeZ`ReVd R\_U Rddf`a eZ`\_d eYRe RWWVTe eYV R`^`\_ed eYRe RcV cVa`ceVU Z\_eYV : `^\_d` ]ZUReVU=Z\_R\_TZR] JeReV^V\_ed R\_U RTT`^ aR\_j Z\_X UzdT]`dfcVd\* KYV SfdZ\_Vdd R\_U VT`\_`^ZT f\_TVceRZ\_e] cVdf]eZ\_X Wc`^ eYV Z`^aRTed`W eYV`\_X`Z\_X`\_gV] T`c`\_RgZcfd`%q: FM@ ; ) -5r& aR\_UV^ZT YRd SVV`\_T`\_dZUVcVU Z`\_`^R\ Z\_X eY`dV VdeZ`ReVd R\_U Rddf`a eZ`\_d\* 8 TefR] cVdf]ed T`f]U UZWWVc Wc`^ eY`dV VdeZ`ReVd\*

@\_eVcT`^ aR\_j ecR\_dRteZ`\_d R\_U SR]R\_TVd YRgV SVV`V]Z`ReVU\* <bVfZe] Z\_gVde^V\_ed Z`\_hYZTY eYV : `^ aR\_j ViVcTzdVd dZX\_ZWZTR\_e Z`\_W]fV\_TV Sfe U`Vd`\_e ViVcTzdV T`\_ec` ] R\_U Zd`\_e eYV acZ`Rc] SV`WVZTRc] RcV RTT`f\_eVU`W`c fdZ\_X eYV VbVfZe]`^VeY U\* @\_gVde^V\_ed Z`\_hYZTY eYV : `^ aR\_j Zd`\_e RS]V e` ViVcTzdV dZX\_ZWZTR\_e Z`\_W]fV\_TV`gVc eYV Z\_gVdeV RcV`^VRdfcVU Re WRZc gR]fV( ZW eYV WRZc gR]fV Zd cVRU]j] UVeVc^Z\_RS]V\* @W R\_Z\_gVde^V\_esd WRZc gR]fV Zd`\_e cVRU]j] UVeVc^Z\_RS]V( eYV : `^ aR\_j hZ] ] ^VRdfcV eYV Z\_gVde^V\_e Re T`de( ]Vdd R\_j Z`^aRZc^V\_e( a]fd`c`^Z\_fd TYR\_XVd cVdf]eZ\_X Wc`^ `SdVcgRS]V acZTV TYR\_XVd`\_cUVc]j] ecR\_dRteZ`\_d`W`c R\_ZUV\_eZTR]`c dZ^Z]Rc Z\_gVde^V\_e`W eYV dR`^V ZddfVc\*

KYV T`\_d` ]ZUReVU deReV^V\_ed`W`^aVcReZ`\_d RcV cVWVccVU e` YVcVZ\_Rd eYV qJeReV^V\_ed`W FaVcReZ`\_d\*r KYV T`\_d` ]ZUReVU SR]R\_TV dYVved RcV cVWVccVU e` YVcVZ\_Rd eYV q9R]R\_TV JYVved\*r KYV T`\_d` ]ZUReVU deReV^V\_ed`W TRdY W]`hd RcV cVWVccVU e` YVcVZ\_Rd eYV qJeReV^V\_ed`W : RdY =]`hd\*r

KYV RTT`^ aR\_j Z\_X : `^\_d` ]ZUReVU=Z\_R\_TZR] JeReV^V\_ed R\_U`\_eVd eYVcVe`dY`f]U SV cVRU Z`\_T`\_[f\_TeZ`\_ hZeY eYV RfUZeVU T`\_d` ]ZUReVU WZ\_R\_TZR] deReV^V\_ed R\_U`\_eVd eYVcVe`Z\_T]fUVU Z\_eYV : `^ aR\_j]sd 8\_\_fR] I Va`ce`\_` =`c^ - , )B`W`c eYV WzdTR] jVRc V\_UVU Af\_V / , ( . . . , Rd W]VU hZeY eYV JVTfcZeZVd R\_U <iTYR\_XV : `^`^ZddZ`\_%eYV qJ<: r&`\_ 8 fXfde --( . . . , %eYV q. . . , =`c^ - , )B r&\*

: VceRZ`\_cVT]RddZWZTReZ`\_d YRgV SVV`^RUV e` eYV acZ`c aVcZ`U T`\_d` ]ZUReVU WZ\_R\_TZR] deReV^V\_ed e` T`\_W`c^ e` eYV TfccV\_e jVRc acVdV\_eReZ`\_\* J aVTZWZTR]j]j( eYV : `^ aR\_j cVT]RddZWZVU TVceRZ`\_T`ded Re eYV FeYVc dVX^V\_e eYRe hVcV acVgZ`fd]j Z\_T]fUVU hZeYZ`\_ J V]Z\_X( XV\_VcR] R\_U RU^Z`ZdecReZgV e` FaVcReZ\_X Vi aV`dVd\* =`c eYV eYcV V`^`\_eYd V\_UVU JVaev^SVc / , ( . . . -5( eYVdV cVT]RddZWZTReZ`\_d Z`\_TcVrdVU FaVcReZ\_X Vi aV`dVd S j ! - ^Z]Z`\_\*

KYV : `^ aR\_j]sd WzdTR] jVRc V\_Ud`\_eYV Jf\_URj T]`dVde` Af\_V / , \* =ZdTR] . . . - R\_U WzdTR] . . . , Z\_T]fUV 1. hVv[d\* 8] cVWVcV\_TVd e` eYV eYcV V`^`\_eYd V\_UVU JVaev^SVc / , ( . . . , R\_U . . . -5 cV]ReV e` eYV eYcV V`^`\_eYd V\_UVU JVaev^SVc .3( . . . , R\_U JVaev^SVc .5( . . . -5( cVdaVTeZgV]j\* =`c T`\_gV\_ZV\_TV afca`dVd( eYV : `^ aR\_j T`\_eZ`\_fVd e` UReV Zed : `^\_d` ]ZUReVU=Z\_R\_TZR] JeReV^V\_ed Rd`\_W JVaev^SVc / , \*

7?=?GWER 0LLN?> \*==HNGMCGA 6KHGHNG=?F?GML

-HSTXIH

@\_Af\_V . , -2( eYV =Z\_R\_TZR] 8TT` f\_eZ\_X JeR\_URcUd 9`RcU %q=8J9r& ZddfVU 8TT` f\_eZ\_X JeR\_URcUd LaUReV %q8JLr& . , -2)-/(



**CDI: -)G:K:CJ:H**

**DdXUb bUfU^eU TtS\cebUc**

KYV : `^ aR\_j e j aZTR]]j ViaV\_dVd dR]Vd T` ^ ^ZddZ`\_d Z\_TfccVU e` `SeRZ\_R Tfde` ^Vc T`\_ecRTe Rd eY`dV R^` f\_ed RcV Z\_TfccVU Rd eYV R^` ceZkReZ`\_ aVcZ`U Zd -. ^`\_eYd `c ]Vdd\* KYVdV T` ded RcV cVT`cUVU hZeYZ\_ JV]]Z\_X( XV\_VcR] R\_U RU^Z\_ZdecReZgV Z\_ eYV JeReV^V\_ed `W FaVcReZ`\_d\* KYV : `^ aR\_j R]d` U`Vd `\_e TRaZeR]ZkV dZX\_ZWZTR\_e WZ\_R\_TZ\_X T`^a`\_V\_ed hYV\_ eYV ecR\_dWVc `W eYV X` `U `c dVcgZTV Zd aRZU hZeYZ\_ -. ^`\_eYd `c ]Vdd( `c eYV cVTVZae `W T`\_dZUVcReZ`\_ Zd cVTVZgVU hZeYZ\_ -. ^`\_eYd `c ]Vdd `W eYV ecR\_dWVc `W eYV X` `U `c dVcgZTV\*

=`c eYV eYcVV ^`\_eYd V\_UVU JVaeV^SVc /,(. . . ,(eYV : `^ aR\_j cVT`X\_ZkVU Raac`iZ^ReV]j !53 ^Z]]Z`\_Z\_ cVgV\_fVd cV]ReVU e` aVcW`c^R\_TV `S]ZXReZ`\_d eYRe hVcV dReZdWZVU `c aRceZR]]j dReZdWZVU Z\_R acZ`c cVa`ceZ\_X aVcZ`U\* KYV cV^RZ\_Z\_X ecR\_dRTeZ`\_ acZTV cV]ReVU e` f\_dReZdWZVU aVcW`c^R\_TV `S]ZXReZ`\_d Rd `W JVaeV^SVc /,(. . . hRd Raac`iZ^ReV]j !014 ^Z]]Z`\_( `W hYZTY Raac`iZ^ReV]j !-31 ^Z]]Z`\_Zd ViaVTeVU e` SV cVT`X\_ZkVU `gVc eYV cV^RZ\_UVc `W WzdTR] . . . -( Raac`iZ^ReV]j !-5 ^Z]]Z`\_Zd ViaVTeVU e` SV cVT`X\_ZkVU Z\_ WzdTR] . . . R\_U Raac`iZ^ReV]j !01 ^Z]]Z`\_Zd ViaVTeVU e` SV cVT`X\_ZkVU Z\_ WzdTR] . . . / ( hZeY eYV cV^RZ\_UVc e` SV cVT`X\_ZkVU eYVcVRWeVc\* KYVdV R^` f\_ed U` \_`e Z\_T]fUV %Z& T`\_ecRTed hZeY R\_ ViaVTeVU UfcReZ`\_ `W `V jVRc `c ]Vdd( %Z& T`\_ecRTed W`c hYZTY gRcZRS]V T`\_dZUVcReZ`\_Zd UVeVc^Z\_VU SRdVU `eYV Tfde` ^Vcsd dfSdVbfV\_e dR]V `c fdRXV R\_U %Z&& gRcZRS]V T`\_dZUVcReZ`\_R]]`TReVU e` aVcW`c^R\_TV `S]ZXReZ`\_d RTT`f\_eVU W`c f\_UVc eYV dVcZVd XfZUR\_TV eYRe ^Vved eYV R]]`TReZ`\_ `S[VTeZgV f\_UVc 8J : 2,2( qIVgV\_fV =c`^ : `ecRTed NZeY : fde`^Vcdr\*

**CDI : . ) G : HIGJ 8 I JG > C < EGD < G 6 BH**

**7?LMKN=INKCGA**

; fcZ\_X eYV eYcVV ^`\_eYd V\_UVU JVaeV^SVc /,(. . . , R\_U . . , -5( eYV : `^ aR\_j cVT`cUVU cVdecfTefcZ\_X TYRcXVd `W !O, ^Z]]Z`\_R\_U !.O ^Z]]Z`\_( cVdaVTeZgV]j( `W hYZTY !/- ^Z]]Z`\_R\_U !-4 ^Z]]Z`\_( cVdaVTeZgV]j( cV]ReVU e` eYV EVhd DVUZR dVX^V\_e\* KYV cVdecfTefcZ\_X TYRcXVd cVT`cUVU Z\_ WzdTR] . . . - acZ^RcZ]j cV]ReV e` ViZe T` ded Rdd`TZReVU hZeY eYV R\_eZTzaReVU T]`dfcV `W eYV

%Rk <bfZej ^VeY`U Z\_gVde^V\_ed RcV acZ^RcZ]j T` ^acZdVU `W =` ieV]sd Z\_gVde^V\_e Z\_ EZT\V]`UV`\_ 8 fdecR]ZR A`Z\_e MV\_efcV R\_U  
<]RcR KVTY\_` ]`XZVd GeV\* CeU\* %q<]RcRr&( hYZTY `aVcReVd Gc` aKZXVc\*T` ^ R\_U ?`fdZ\_X\*T` ^\*

%Sk <bfZej dVTfcZzVd RcV acZ^RcZ]j T` ^acZdVU `W TVceRZ\_ Z\_gVde^V\_ed Z\_ : YZ\_R R\_U eYV : `^aR\_jsd Z\_gVde^V\_e Z\_ ?K#<  
CZ^ZeVU( hYZTY `aVcReVd R a`ceW` ]Z` `W 8 fdecR]ZR\_cRUZ` R\_U `feU`^c ^VUZR RddVed\*

KYV : `^aR\_j YRd VbfZej dVTfcZzVd hZeY bf`eVU acZTVd Z\_ RTeZgV ^Rc\Ved Rd hV]] Rd VbfZej dVTfcZzVd hZeY` fe cVRUZ]j

8d`W JVaeV^SVc /,(. . .,(eYV =`ieV] ;VSe >c` fa YRU f\_UcRh\_T` ^ ^Ze^V\_ed`W 8!51 ^Z]]Z` \_f\_UVc eYVdV WRTZ]ZeZVd W`c  
hYZTY Ze aRjd R T` ^ ^Ze^V\_e WVV `W O1 "

**CDI : 1 ) : FJ > IN**

KYV W`]]^ hZ\_X eRS]Vd df ^ ^ RcZkV TYR\_XVd Z\_ VbfZeJ W`c eYV eYcVV ^`\_eYd V\_UVU JVaV^SVc / ,( . . . , R\_U . . , -56

;\_b dXU dXbUU ]\_^dXc U^TUT HU`dU ] RUB .+` -++

8\Qcc 6 8_] ]_^ Hd_S[	8\Qcc 7 8_] ]_^ Hd_S[	6TTdY_^Q\ EQYT(V^ 8Q`YdQ\	6SSe ] e\QdUT DdXUb 8_] `bUXU^cfFU A_cc	I_dQ\ CÜgc 8_b` :aeIdi	C_^( S_^ab_\V^W >^dUbUcdc	I_dQ\ :aeIdi
HXQbUc 6 ]_e^d	HXQbUc 6 ]_e^d	9UVVSId	\$^ ]\W_^c%			

9R]R_TV( Af_V / ,( . . . ,	/45	!	0	. . . ,	!	.	!- .(-04	!	%/(.0-&	!	%-(//-&	!	3(14.	!	4,3	!	4(/45
EVe Z_T` ^V	p	p	p	p	p	p	/0	p	/0	-/	03						
FeYVc T` ^acVYV_dZgV Z_T` ^V	p	p	p	p	p	p	52	52	-3	--/							
;ZgZUV_Ud	p	p	p	p	%15&	p	p	%15&	%. ,&	%35&							
FeYVc	.	p	p	p	%-0&	p	p	%-0&	%. &	%-2&							
9R]R_TV( JVaV^SVc / ,(	/5-	!	0	. . . ,	!	.	!- .(,31	!	%/(. ,3&	!	%-(./1&	!	3(2/5	!	4-1		











:`ca`cReZ`\_`%`XVeYVc( eYV qE 8 D GRceZVdr& R]VXZ\_X gZ`JReZ`\_d`W`WVUVCr] R\_U deReV R\_eZecfde ]Rh d R\_U T`^`^`\_ ]Rh SfdZ\_Vdd e`ced\* KYV T`^`a]RZ\_e dVV\d ecVS]V UR^RXVd( Z\_[f\_TeZgV cV]ZVW R\_U Ree`c\_Vjds WVVd R\_U T`ded\* F\_ 8 fXfde -0( . , -5( eYV E 8 D GRceZVd R\_U dh VcVU eYV T`^`a]RZ\_e R\_U RddVceVU R T`f\_eVcT]RZ^` RXRZ\_de @\_dZX\_ZR`W`c` ScVRTY `W T`\_ecrTe( R]VXZ\_X eYRe @\_dZX\_ZR gZ`JReVU R acZ`c dVee]V^`V\_e RXcVV^`V\_e Sveh VV\_ E 8 D @\_)Je`cV R\_U @\_dZX\_ZR\* F\_ Af]j - , ( . . . , ( VRTY `W eYV E 8 D GRceZVd R\_U @\_dZX\_ZR WZ]VU R ^`eZ`\_`W`c`df^`^`Rcj [fUX^`V\_e`\_`eYV T`f\_eVcT]RZ^`\* NYZ]V Ze Zd`\_`e`a`ddZ]S]V Re eYZd eZ^`V\_e` acVUZTe hZeY R\_j UVXcVV `W TVceRZ\_ej eYV f]eZ^`ReV `feT`^`V`W`eYZd RTeZ`\_( eYV E 8 D GRceZVd SV]ZVgV eYVj YRgV SVV\_ T`^`a]RZ\_e hZeY Raa]ZTRS]V ]Rh d R\_U Z\_eV\_U e` UVWV\_U eYV^`dV]gVd gZ`c`fd]j\*

**BEPEWMMW /SQOYRMGEXMSRW# 5RC%**

F\_ E`gV^`SvC 4( . , -/( MR]RddZd WZ]VU R T`^`a]RZ\_e Z\_eYV L\*J\* ;ZdecZTe : `fce`W`c`eYV <RdeVc\_ ;ZdecZTe `W`DZTYZXR\_`%eYV q; ZdecZTe : `fcer& RXRZ\_de eYV E 8 D GRceZVd R\_U EVhd 8^`VcZTR @\_T`ca`cReVU`%`XVeYVc( eYV qE 8 D >c`far& R]VXZ\_X gZ`JReZ`\_d`W`WVUVCr] R\_U deReV R\_eZecfde ]Rh d R\_U T`^`^`\_ ]Rh SfdZ\_Vdd e`ced( Z\_T]fUZ\_X f\_WRZc T`^`aVeZeZ`\_\* KYV T`^`a]RZ\_e dVV\d ecVS]V UR^RXVd( Z\_[f\_TeZgV cV]ZVW R\_U Ree`c\_Vjds WVVd R\_U T`ded\* E 8 D @\_)Je`cV R\_U E 8 D =J@ RddVceVU R T`f\_eVcT]RZ^` RXRZ\_de MR]RddZd`W`c`f\_WRZc T`^`aVeZeZ`\_( R]VXZ\_X eYRe MR]RddZd YRd V\_XRXVU Z\_eYV dR^`V`acRTeZTVd eYRe Ze R]VXVd e` SV f\_WRZc\* @\_ E`gV^`SvC . , -5( eYV aRceZVd RXcVVU e`UZdT`\_eZ\_fV eYV f\_WRZc T`^`aVeZeZ`\_ T]RZ^`R\_U T`f\_eVcT]RZ^`\*

F\_ ;VTV^`SvC -5( . , -/( eYV E 8 D >c`fa WZ]VU R ^`eZ`\_`e`UZd^`Zdd eYV T`^`a]RZ\_e R\_U`\_`DRcTY / , ( . , -2( eYV ;ZdecZTe : `fce`UZd^`ZddVU MR]RddZdsd Sf\_U]Z\_X R\_U ejZ\_X T]RZ^`d\* F\_ JVaeV^`SvC .1( . , -3( eYV ;ZdecZTe : `fce`XcR\_eVU MR]RddZdsd ^`eZ`\_`e`ecR\_dWVc eYV TRdV e`eYV L\*J\* ;ZdecZTe : `fce`W`c`eYV J`feYVc\_ ;ZdecZTe `W`EVh P`c`%eYV qE\*P\* ;ZdecZTe : `fcer&\* F\_ 8 acZ] -/( . , -4( eYV E 8 D >c`fa WZ]VU R ^`eZ`\_`W`c`df^`^`Rcj [fUX^`V\_e`UZd^`ZddZ\_X eYV TRdV hYZTY hRd XcR\_eVU Z\_aRce R\_U UV\_ZVU Z\_aRce Sj eYV E\*P\* ;ZdecZTe : `fce`\_`=VScfRcj .-( . , -5\* KYV E\*P\* ;ZdecZTe : `fce`W`f\_U`eYRe eYV E 8 D >c`fasd SZUUZ\_X acRTeZTVd hVcV ]Rh]f] Sfe UV\_ZVU Zed ^`eZ`\_`hZeY cVdaVTe e` T]RZ^`d`RcZdZ\_X`fe`W`TVceRZ`\_`eYVc R]VXVU T`\_ecrTeZ\_X acRTeZTVd\* @\_ RUUZeZ`\_( eYV E\*P\* ;ZdecZTe : `fce`R]d`UZd^`ZddVU MR]RddZdsd T]RZ^`d`cV]ReZ\_X e`WcV)deR\_UZ\_X Z\_dVce ac`UfTed\* F\_ ;VTV^`SvC . , ( . , -5( eYV E\*P\* ;ZdecZTe : `fce`XcR\_eVU eYV E 8 D >c`fasd ^`eZ`\_`e`ViT]fUV eYV eVdeZ`^`\_j`W`MR]RddZdsd d`]V UR^RXVd Vi aVce( Sfe dfSdVbfV\_e]j T]RcWZVU eYRe MR]RddZd T`f]U dVV` eYV T`fcesd aVc^`ZddZ`\_`e`ac`gV UR^RXVd eYc`fXY`eYVc VgZUV\_TV\* MR]RddZd WZ]VU R ^`eZ`\_`e`dfaa]V^`V\_e R\_U R^`V\_U Zed Vi aVce R\_U acV)ecZR] UR^RXVd UZdT`dfcVd( hYZTY eYV E\*P\* ;ZdecZTe : `fce`XcR\_eVU`\_`8 acZ] .0( . . . , \* F\_ DRj 4( . . . , ( eYV E 8 D >c`fa WZ]VU R ^`eZ`\_`e`cVT`\_dZUVc eYV E\*P\* ;ZdecZTe : `fcesd 8 acZ] .0( . . . , UVTZdZ`\_( hYZTY eYV T`fce UV\_ZVU`\_`FTe`SvC ./( . . . , \* 8 ecZR] UR^eV YRd`\_`e`SVV`dVe Sj eYV T`fce\* NYZ]V Ze Zd`\_`e`a`ddZ]S]V Re eYZd eZ^`V\_e` acVUZTe hZeY R\_j UVXcVV `W TVceRZ\_ej eYV f]eZ^`ReV `feT`^`V`W`eYZd RTeZ`\_( eYV E 8 D >c`fa SV]ZVgVd Ze YRd SVV\_ T`^`a]RZ\_e hZeY Raa]ZTRS]V ]Rh d R\_U Z\_eV\_Ud e`UVWV\_U ZedV]W`gZ`c`fd]j\*

**A%7% : I [WTETIV 9EXXIVW**

:ZgZ] T]RZ^`d`YRgV SVV\_ Sc`fXYe RXRZ\_de eYV : `^`aR\_j hZeY cVdaVTe e` ( R^`\_X`eYVc eYL\_Xd( g`ZTV^`RZ] Z\_eVcTVaeZ`\_`R\_U Z\_Raac`acZReV aRj^`V\_ed e`afS]ZT`WWTZR]d Re eYV : `^`aR\_jsd`W`c`^`Vc afS]ZTReZ`\_( @LI : I [W SJ XLI CSVPH( R\_U Re @LI ?YR( R\_U cV]ReVU ^`ReeVcd %eYV qL\*B\* EVhdaRaVc DReeVcdR\* KYV : `^`aR\_j YRd RU^`ZeeVU ]ZRSZ]Ze j`\_`^`R\_j TZgZ] TRdVd R\_U YRd dVee]VU R \_f^`SvC`W`TRdVd\* KYV : `^`aR\_j R]d`dVee]VU R\_f^`SvC`W`T]RZ^`d`eYc`fXY R acZgReV T`^`aV\_dReZ`\_`dTYY^`V`hYZTY hRd T]`dVU e`\_`Vh T]RZ^`d`RWeVc 8 acZ] 4( . , -/\*

@\_ T`\_`VTeZ`\_`hZeY eYV dVaRcReZ`\_`W`eYV : `^`aR\_j Wc`^`KhV\_ej)=Zede : V\_efcj =`i(@\_T\*%q. -de : V\_efcj =`ir&`\_`Af\_V .4( . , -/( eYV : `^`aR\_j R\_U . -de : V\_efcj =`i`RXcVVU Z\_eYV JVaRcReZ`\_`R\_U ;ZdecZSfeZ`\_`8XcVV^`V\_e`eYRe . -de : V\_efcj =`i`h`f]JU Z\_UV^`\_`ZWj eYV : `^`aR\_j`W`c`aRj^`V\_ed`^`RUV RWeVc dfTY UR^eV RcdZ\_X`fe`W`TZgZ] T]RZ^`d`R\_U Z\_gVdeZXRZ`\_`d`cV]ReZ\_X e`eYV L\*B\* EVhdaRaVc DReeVcd Rd hV]] Rd ]VXR] R\_U ac`WVddZ`\_`R] WVVd R\_U Vi aV\_dVd aRZU Z`\_`T`\_`VTeZ`\_`hZeY eYV acVgZ`fd]j T`\_`T]fUVU TcZ^`Z\_R] ^`ReeVcd( `eYVc eYR\_`WVd( Vi aV\_dVd R\_U T`ded`cV]ReZ\_X e`V`^`a]`j`Vd`%Z`hY`RcV`\_`e`UZcVTe`cd( `WWTZVcd`c`TVceRZ`\_`UVdZX\_ReVU V^`a]`j`Vd`c`%Z`hZeY cVdaVTe e`TZgZ] ^`ReeVcd( hY`RcV`\_`e`T`UVWV`UR\_ed`hZeY eYV : `^`aR\_j`c`\_`-de : V\_efcj =`i\* . -de : V\_efcj =`isd`Z\_UV^`\_`ZWZTRZ`\_`\_`S]ZXRZ`\_`d`hZeY cVdaVTe e`eYVd`^`ReeVcd`RcV`dVee]VU`\_`R`RWeVc)eRi`SRdZd`@\_`DRcTY . , -5( Rd aRce`W`eYV dVaRcReZ`\_`W`e`i : `ca`cReZ`\_`%q=FOr&`Wc`^` . -de : V\_efcj =`i( eYV : `^`aR\_j( EVhd : `ca`?`JUZ\_Xd`LB`#`@cV]R\_U( . -de : V\_efcj =`i`R\_U=FO`V\_eVcVU Z\_e`R`GRceZR]`8ddZX`^`V\_e`R\_U`8ddf`a`aeZ`\_`8XcVV^`V\_e( afcdfr\_e`e`hYZTY( R^`\_X`eYVc

C : LH 8DGEDG6I>DC

CDI : H ID I = : JC6J9>I : 9 8DCHDA>96I : 9 ;>C6C8>6A HI 6I : B : CIH

cVTVZgRSjV Z\_ FeYVc TfccV\_e RddVed ` \_eYV 9RjR\_TV JYVVe Rd `W JVaeV^SVc / , ( . . . , \* @e Zd ` \_e a`ddZSjV e` VdeZ^ReV eYV jZRSZjZe j `c T`ccVda` \_UZ\_X cVTVZgRSjV W`c R\_j RUUZeZ`\_R] TjRZ^d eYRe ^Rj SV WZjVU XZgV\_eYV Z\_W`c^ReZ`\_eYRe Zd TfccV\_e]j RgRZjRSjV e` eYV : ` ^aR\_j \* @W ^ `cV TjRZ^d Rcv WZjVU R\_U RUUZeZ`\_R] Z\_W`c^ReZ`\_ SVT` ^Vd RgRZjRSjV( eYV : ` ^aR\_j hZj] faUReV eYV jZRSZjZe ac`gzdZ`\_R\_U T`ccVda` \_UZ\_X cVTVZgRSjV W`c dfTY ^ReeVcd\*

KYV : ` ^aR\_j Zd ` \_e RSjV e` acVUZTe eYV f]eZ^ReV ` feT` ^V `c T`de `W eYV TZgZj TjRZ^d \* @e Zd a`ddZSjV eYRe eYVdV ac`TVVUZ\_Xd R\_U R\_U j RUgVcdV cVd` ]feZ`\_eYVcV`W T` f]U UR^RXV Zed cVa feReZ`\_(Z^aRZc Zed RSZjZe j e` T`\_UfTe Zed Sf dZ\_Vdd R\_U RUgVcdV]j RWWWTe Zed cVdf]ed `W`aVcReZ`\_d R\_U WZ\_R\_TZRj T`\_UZeZ`\_\*

; XLIV

KYV : ` ^aR\_j sd eRi cVefc\_d Rcv dfSjVTe e` ` \_X`Z\_X cVgZVh R\_U ViR^Z\_ReZ`\_ Sj gRcZ` fd eRi RfeY`cZeZVd\* KRi RfeY`cZeZVd ^Rj ` \_e RXcVV hZeY eYV ecVRe^V\_e `W ZeV^d cVa`ceVU Z\_eYV : ` ^aR\_j sd eRi cVefc\_d( R\_U eYVcVW`cV eYV ` feT` ^V `W eRi cVgZVhd R\_U ViR^Z\_ReZ`\_d TR\_SV f\_acVUZTeRSjV\*

KYV : ` ^aR\_j SVjZVgVd Ze Yrd Raac`acZReV]j RTTcfVU W`c eYV ViaVTeVU ` feT` ^V `W f\_TVceRZ\_eRi ^ReeVcd R\_U SVjZVgVd dfTY jZRSZjZeVd cVAcVdV\_e R cVRd`\_RSjV ac`gzdZ`\_ W`c eRi Vd f]eZ^ReV]j ViaVTeVU e` SV aRZU Y` hVgVc( eYVdV jZRSZjZeVd ^Rj ` \_VVU e` SV RU[fdeVU Rd ` \_Vh Z\_W`c^ReZ`\_ SVT` ^Vd ` \_h`\_R\_U Rd eRi ViR^Z\_ReZ`\_d T`\_eZ\_fV e` ac`XcVdd( `c Rd dVee]V^V\_ed `c jZeZXRZ`\_d `TTfc\*

CDI : ,+)>C8DB : I6M:H

8e eYV V\_U `W VRTY Z\_eVcZ^ aVcZ`U( eYV : ` ^aR\_j VdeZ^ReVd eYV R\_\_fRj VWWWTeZgV eRi cReV R\_U Raa]ZVd eYRe cReV e` Zed `cUZ\_Rc j bfRceVc]j VRc\_Z\_Xd\* KYV eRi ViaV\_dV `c SV\_VWZe cV]ReVU e` dZX\_ZWZTR\_e( f\_fdfR] `c Viecr`cUZ\_Rc j ZeV^d eYRe hZj] SV dVaRcReV]j cVa`ceVU `c cVa`ceVU `Ve `W eYVZc cV]ReVU eRi VWWWTe Rcv Z\_UZgZUfR]j] T` ^afeVU R\_U cVT`X\_ZkVU Z\_eYV Z\_eVcZ^ aVcZ`U Z\_ hYZTY eY`d ZeV^d `TTfc\* @\_RUUZeZ`\_( eYV VWWWTe d `W TYR\_XVd Z\_V\_RTeVU eRi jRhd `c cReVd `c eRi deRefd Rcv cVT`X\_ZkVU Z\_eYV Z\_eVcZ^ aVcZ`U Z\_ hYZTY eYV TYR\_XV `TTfcd\* KYV TYR\_XZ\_X\_R\_U g`j]ReZjV ^RtC` )VT` ` \_`ZT T`\_UZeZ`\_d T`\_VTeVU hZeY : FM@ ; )- 5 ^Rj TRfdV W]fTefReZ`\_d Z\_ W`cVTRdeVU VRc\_Z\_Xd SVW`cV Z\_T` ^V eRi Vd 8d dfTY( eYV : ` ^aR\_j sd VWWWTeZgV eRi cReV T` f]U SV dfSjVTe e` g`j]ReZjZe j Rd W`cVTRdeVU VRc\_Z\_Xd SVW`cV Z\_T` ^V eRi Vd Rcv Z^aRTeVU Sj VgV\_ed hYZTY Rcv YZYXj] f\_TVceRZ`\_R\_U TR`\_e SV acVUZTeVU\*

=`c eYV eYcVv ` ^eYd V\_UVU JVaeV^SVc / , ( . . . , (eYV : ` ^aR\_j cVT`cUVU Z\_T` ^V eRi ViaV\_dV `W !.1 ^Zj]Z`\_ ` \_acV)eRi Z\_T` ^V `W !.3. ^Zj]Z`\_( cVdf]eZ`\_X\_Z\_R\_ VWWWTeZgV eRi cReV eYRe hRd YZYXVc eYR\_eYV L\*J\* deRefe`cj eRi cReV\* KYV YZYXVc eRi cReV hRd acZ^RcZj] UcgV`\_Sj eYV : ` ^aR\_j sd [fcZdUZTeZ`\_R] Z\_T` ^V %)dd & ^Zi hYZTY Z\_T]fUVd eYV Z^aRTe `W`cVZX`\_ aVcReZ`\_d hYZTY Rcv dfSjVTe e` YZYXVc eRi Vd\*

=`c eYV eYcVv ` ^eYd V\_UVU JVaeV^SVc / , ( . . . -5( eYV : ` ^aR\_j cVT`cUVU R\_Z\_T` ^V eRi SV\_VWZe `W !. - ^Zj]Z`\_ ` \_R acV)eRi ]`dd `W !. / . ^Zj]Z`\_( cVdf]eZ`\_X\_Z\_R\_ VWWWTeZgV eRi cReV eYRe hRd ]`hVc eYR\_eYV L\*J\* deRefe`cj eRi cReV\* KYV ]`hVc eRi cReV hRd acZ^RcZj] UfV e` eYV ]`hVc eRi SV\_VWZe cVT`cUVU ` \_eYV Z^aRZc^V\_e `W EVhd 8 ^VcZTR DRc\VeZ\_Xsd X`\_`UhZj] R\_U Z\_UVWV\_ZeV)]ZgVU Z\_eR\_XZSjV RddVed R\_U Sj gRj]fReZ`\_R] ]`hR\_Tvd SVZ\_X cVT`cUVU RXRZ\_de eRi SV\_VWZed Z\_TVceRZ`\_ W`cVZX`\_ [fcZdUZTeZ`\_d hZeY `aVcReZ`\_X ]`ddVd\*

DR\_RXV^V\_e RddVddVd RgRZjRSjV VgZUV\_TV e` UVeVc^Z\_V hYVeYVc dfWWWZTV\_e WfefeV eRiRSjV Z\_T` ^V hZj] SV XV\_VcReVU e` aVc^Ze eYV fdV `W ViZdeZ`\_X UVWVccVU eRi RddVed\* 9RdVU ` \_^R\_RXV^V\_esd RddVdd^V\_e `W RgRZjRSjV VgZUV\_TV( Ze Yrd SVV\_UVeVc^Z\_VU eYRe Ze Zd ^`cV jZ[V]j eYR\_`\_e eYRe UVWVccVU eRi RddVed Z\_L\*J\* WVUVcR( deReV R\_U W`cVZX`\_ [fcZdUZTeZ`\_d ^Rj ` \_e SV cVR]ZkVU R\_U eYVcVW`cV( R RgRj]fReZ`\_R] ]`hR\_TV Yrd SVV\_VdeRSjZdYVU RXRZ\_de eY`dV eRi RddVed\*

KYV : ` ^aR\_j sd eRi cVefc\_d Rcv dfSjVTe e` ` \_X`Z\_X cVgZVh R\_U ViR^Z\_ReZ`\_ Sj gRcZ` fd eRi RfeY`cZeZVd\* KRi RfeY`cZeZVd ^Rj ` \_e RXcVV hZeY eYV ecVRe^V\_e `W ZeV^d cVa`ceVU Z\_eYV : ` ^aR\_j sd eRi cVefc\_d( R\_U eYVcVW`cV eYV ` feT` ^V `W eRi cVgZVhd R\_U ViR^Z\_ReZ`\_d TR\_SV f\_acVUZTeRSjV\* KYV : ` ^aR\_j Zd TfccV\_e]j f\_UVcX`Z\_X eRi ViR^Z\_ReZ`\_d Z\_gRcZ` fd L\*J\* deReV R\_U W`cVZX`\_ [fcZdUZTeZ`\_d\* ; fcZ\_X eYV eYcVv ` ^eYd V\_UVU JVaeV^SVc / , ( . . . , (eYV : ` ^aR\_j cVRTYVU R\_WZ\_R] dVee]V^V\_e hZeY eYV @\_eVc\_R] I VgV\_fV JVcgZTV W`c eYV WzdTR] j VRc V\_UVU Af\_V / , ( . . . -0 Rd eYV deRefeV `W jZ^ZeReZ`\_d ViaZcVU W`c eYRe jVRc\* KYVcV hRd ` \_TYR\_XV W`c ^eYV cVdf]ed eYRe eYV : ` ^aR\_j cVT`cUVU Rd `W Af\_V / , ( . . . , W`c eYzd ViaZcReZ`\_ `W deRefeV\* KYV : ` ^aR\_j SVjZVgVd Ze Yrd Raac`acZReV]j RTTcfVU W`c eYV ViaVTeVU ` feT` ^V `W f\_TVceRZ\_eRi ^ReeVcd R\_U SVjZVgVd dfTY jZRSZjZeVd cVAcVdV\_e R cVRd`\_RSjV ac`gzdZ`\_ W`c eRi Vd f]eZ^ReV]j ViaVTeVU e` SV aRZU\* ?`hVgVc( eYV : ` ^aR\_j ^Rj ` \_VVU e` RTTcfV RUUZeZ`\_R] Z\_T` ^V eRi ViaV\_dV R\_U Zed jZRSZjZe j ^Rj ` \_VVU e` SV RU[fdeVU Rd ` \_Vh Z\_W`c^ReZ`\_ SVT` ^Vd ` \_h`\_R\_U Rd eYVdV eRi ViR^Z\_ReZ`\_d T`\_eZ\_fV e` ac`XcVdd( `c Rd dVee]V^V\_ed `c jZeZXRZ`\_d `TTfc\*

KYV : `^ aR\_j aRZU Xc`dd Z\_T`^V eRiVd `W !./ ^Z]]Z`\_R\_U !.3 ^Z]]Z`\_UfcZ\_X eYV eYcVV ^`\_eYd V\_UVU JVaev^SVc /,(.,., R\_U  
.,-5



**C : LH 8DGEDG6I>DC**  
**CDI : H ID I = : JC6J9>I : 9 8DCHDA>96I : 9 ;>C6C8>6A HI 6I : B : CIH**

	$\frac{6c_v}{HU^dU J RUB .+^+ -++}$	$\frac{6c_v}{?e^U .+^+ -++}$
	\$!^ J \\\_c%	
K`eR] RddVed6		
; ZXZeR] I VR] <deReV J VcgZTVd	!	!(./ / .)
J fSdTcZaeZ`_ MZUV` J VcgZTVd	/(1- /	/(015
; `h A`_Vd	.(0/1	.(04,
9``\ GfS]ZdYZ_X	.(./ /	.(.- .
EVhd DVUZR	.(, 31	-(550
FeYVc <sup>%Rk</sup>	-(051	-(053
@_gVde^V_ed	/-0	.53
K`eR] RddVed	<u>!</u>	<u>! -0(.2-</u>

<sup>%Rk</sup> KYV FeYVc dVX^V\_e acZ^RcZ]j Z\_T]fUVd : RdY R\_U TRdY VbfZgR]V\_ed\*

	$\frac{6c_v}{HU^dU J RUB .+^+ -++}$	$\frac{6c_v}{?e^U .+^+ -++}$
	\$!^ J \\\_c%	
>`U hZ]] R_U Z_eR_XZS]V RddVed( _Ve6		
; ZXZeR] I VR] <deReV J VcgZTVd	!	!(123 ! -)
J fSdTcZaeZ`_ MZUV` J VcgZTVd	-(1/1	-(1- /
; `h A`_Vd	-(3-5	-(3. .
9``\ GfS]ZdYZ_X	32,	304
EVhd DVUZR	.41	.33
K`eR] >`U hZ]] R_U Z_eR_XZS]V RddVed( _Ve	<u>!</u>	<u>! 1(422 ! 1(4-1</u>

**CDI : , -) 699>I>DC6A ;>C6C8>6A >C ;DGB 6I>DC**

7?=?00;<E?L# G?#

I VTVzGRS]Vd RcV acVdV\_eVU \_Ve `W R\_ R]]` hR\_TV W`c U` fSeWf] RTT` f\_ed( h YZTY Zd R\_ VdeZ^ReV `W R^` f\_ed eYRe ^Rj \_`e SV T`]]VTeZS]V\* KYV R]]` hR\_TV W`c U` fSeWf] RTT` f\_ed Zd VdeZ^ReVU SRdVU ` \_YZde`cZTR] V i aVcZV\_TV( cVTVzGRS]V RXZ\_X( TfccV\_e R\_U WfefeV VT` \_`^ZT ecV\_Ud R\_U daVTZWZT ZUV\_eZWZTReZ` \_`W TVceRZ\_ cVTVzGRS]Vd eYRe RcV Re cZd\ `W \_`e SVZ\_X T`]]VTeVU\*

I VTVzGRS]Vd( \_Ve T`\_dZde `W6

	$\frac{6c_v}{HU^dU J RUB .+^+ -++}$	$\frac{6c_v}{?e^U .+^+ -++}$
	\$!^ J \\\_c%	
I VTVzGRS]Vd	!	! -(./ -1 ! -)
8]]` hR_TV W`c U` fSeWf] RTT` f_ed	%31&	%3/&
I VTVzGRS]Vd( _Ve	<u>!</u>	<u>! -(./ , /</u>



**CDI : ,.) HJ7H:FJ:CI :K:CIH**

*IPEVE*

@\_ FTe`SVc . . . , ( I<8 >c` fa V\_eVcVU Z\_e` R SZ\_UZ\_X RXcVV^V\_e e` Z\_TcVRdV Zed`h\_VcdYZa Z\_eVcVde Z\_<]RcR\* I<8 >c` fa TfccV\_e]j  
Y`]Ud R -/\*1 " Z\_eVcVde R\_U`\_ T`^a]VeZ`\_( Zd ViaVTeVU e` YRgV R dYRcVY`]UZ\_X`W SvehVV\_03\*. " R\_U 2-\* - " R\_U Y`]U WzgV`W  
\_Z\_V dVRed`\_<]RcRsd 9`RcU`W ; ZcVTe`cd\* La`\_ T`^a]VeZ`\_`W eYV ecR\_dRTeZ`\_( I<8 >c` fa hZ]] T`\_d`]ZUReV<]RcRsd WZ\_R\_TZR]  
cVdf]ed\* KYV e`eR] T`\_dZUV c` fa hZ]] T`\_d`]ZUReV<]RcRsd WZ\_R\_TZR] >cV\_



>I: B -) B 6C6 < : B : CIkH 9>H8 JHH>DC 6C9 6C6ANH>H D ; >C6C8>6A 8DC9>I>DC 6C9 G : HJAIH D ;  
DE : G6 I > DCH

@LMW HSGYQIRX# MRGPYHMRK XLI JSPPS [MRK HMWGYWVMSR ERH EREP]JWW# GSRXEMRW WXEXIQIRXW XLEX GSRWXXYYI \_JSV [EVH\$PSSOMRK  
WXEXIQIRXW [MXLNR XLI QIERMRK SJ ?IGXMSR ( ' I SJ XLI ?IGYVMMXIW I \GLERKI -GX SJ ' , ) \*# EW EQIRHIIH !XLI \_I \GLERKI -GX ` "# ERH  
?IGXMSR (+ - SJ XLI ?IGYVMMXIW -GX SJ ' , ) )# EW EQIRHIIH - PP WXEXIQIRXW XLEX EVI RSX WXEXIQIRXW SJ LMWXSVMGEP JEGX EVI JSV [EVH\$  
PSSOMRK WXEXIQIRXW @LI [SVHW \_I \TIGX# \_JWXMQEXI# \_ERNMGTEIX# \_TVIHNGX# \_FIPMIZI ` ERH WQMPVEV I \TVIWWWMSRW ERH ZEVMEXMSRW  
XLIVISJ EVI MRXIRHIIH XS MHIRXMJ] JSV [EVH\$PSSOMRK WXEXIQIRXW @LIWI WXEXIQIRXW ETTIEV MR E RYQFIV SJ TPEGIV MR XLMW HMWGYWVMSR  
ERH EREP]JWW ERH MRGPYHI WXEXIQIRXW VIKEVHMRK XLI MRXIRX# FIPMISV GYVIVRX I \TIGXEXMSRW SJ XLI /SQTER]# MXW HMVIGXSVW SV MXW  
SJJIGIVW [MXL VIWTIGX XS# EQSRK SXLIV XLMRKW# XVRIRW EJJIGMRK XLI /SQTER]aW JMRERGMEP GSRHMXMSR SV VIWYPXW SJ STIVEXMSRW#  
MRGPYHMRK I \TIGXIH MQTEGXW JVSQ XLI SRKSMRK RSZIP GSVSREZMVYW ! \_ / ; B50\$ ' , ` " TERHIQMG ERH VIPEXIH TYFPNG LIEPLX QIEWYVIW#  
XLI /SQTER]aW WXVEXIK] ERH WXVEXIKMG MRMXMEXMZIW ERH XLI SYXGSOI SJ GSRXMRKIRGMZIW WYGL EW PMXMKEXMSR ERH MRZINXMKEXMSRW% >IEHVV  
EVI GEYXMSRIH XLEX ER] JSV [EVH\$PSSOMRK WXEXIQIRXW EVI RSX KYEVERXIIW SJ JYXYVI TIVJSVQERGI ERH MRZSPZI VWVOW ERH  
YRGIVXEMRXMTW# MRGPYHMRK XLSWI VIPEXIH XS / ; B50\$ ' , % 9 SVI MRJSVQEXMSR VIKEVHMRK XLIWI VWVOW ERH YRGIVXEMRXMTW !QER] SJ [LML  
QE] FI EQTPMJIH F] / ; B50\$ ' , " ERH SXLIV MQTSVXERX JEGXSVW XLEX GSYPH GEYWI EGXYEP VIWYPXW XS HUJIV QEXIVMEPP] JVSQ XLSWI MR  
XLI JSV [EVH\$PSSOMRK WXEXIQIRXW MW WIX JSVXL YRHIV XLI LIEHMRK \_>MWO 2EGXSVW` MR <EVX 5# SXIQ ' - % MR : I [W /SVTSVEXMSRaW - RRYEP  
>ITSVX SR 2SVQ ' &\$7 JSV XLI JMWGEP JIEV IRHIIH 6YRI )&# (&(& EW JMHIP [MXL XLI ?IGYVMMXIW ERH I \GLERKI /SQQWWWMSR !XLI  
\_?I / ` " SR - YKYWX ' '# (&(!XLI \_(&(& 2SVQ ' &\$7 ` "# ERH EW QE] FI YTHEXIH MR XLMW ERH SXLIV WYFWIUYIRX =YEYVIVP] >ITSVX  
SR 2SVQ ' &\$% @LI /SQTER] HSIW RSX SVHIREVMP] QEOI TVSNVIGXMSRW SJ MXW JYXYVI STIVEXMRK VIWYPXW ERH YRHIVXEOIW RS SFPMKEXMSR  
!ERH I \TVIWWP] HMWGPENQW ER] SFPMKEXMSR" XS TYFPNGP] YTHEXI SV VIZMWI ER] JSV [EVH\$PSSOMRK WXEXIQIRXW [LIXLIV EW E VIWYPX SJ  
RI [ MRJSVQEXMSR# JYXYVI IZIRXW SV SXLIV [MWI# I \GITX EW VIUYIVIH F] PE [% >IEHVV WLSYPH GEVIJYPP] VIZNI [ XLMW HSGYQIRX ERH XLI  
SXLIV HSGYQIRXW JMHIP F] XLI /SQTER] [MXL XLI ?I / % @LMW WIGXMSR WLSYPH FI VIEH XSKIXLIV [MXL XLI YREYHMXIH GSRWSPMHEXIH  
JMRERGMEP WXEXIQIRXW SJ : I [W /SVTSVEXMSR ERH VIPEXIH RSXIW WIX JSVXL IPWI [LIVI LIVIMR ERH XLI EYHMXIH GSRWSPMHEXIH JMRERGMEP  
WXEXIQIRXW SJ : I [W /SVTSVEXMSR ERH VIPEXIH RSXIW WIX JSVXL MR XLI (&(& 2SVQ ' &\$7%

>CIGD9 J 8 I > DC

EVhd : `ca`cReZ` \_ %e`XVeYVc hZeY Zed dfSdZUZRcZVd( qEVhd : `ca`cReZ`\_(r qEVhd : `ca(r eYV q : `^aR\_j(r qhV(r `c qfdr& Zd R  
X]`SR] UzGvcdZWZVU ^VUZR R\_U\_Z\_`c^ReZ`\_ dVcgZTVd T` ^aR\_j T` ^acZdVU `W SfdZ\_VddVd RTc`dd R cR\_XV `W ^VUZR( Z\_T]fUZ\_X6 UZXZeR]  
cVR] VdeReV dVcgZTVd( dfSdTcZaeZ` \_gZUV` dVcgZTVd Z\_ 8 fdecR]ZR( \_Vhd R\_U\_Z\_`c^ReZ`\_ dVcgZTVd R\_U S` ` ` afS]ZdYZ\_X\*

; fcZ\_X eYV W` fceY bfRceVc `W WzdTR] . . . , (Z\_T` \_VTeZ` \_ hZeY eYV : `^aR\_j]d dR]V `W Zed EVhd 8 ^VcZTR DRc\VeZ\_X cVa`ceZ\_X f\_Ze  
R\_U Zed R\_\_FR] cVgZVh `W Zed cVa`ceRS]V dVX^V\_ed( eYV : `^aR\_j UVeVc^Z\_VU e` UzdrXXcVXReV Zed ; `h A` \_Vd `aVcReZ\_X dVX^V\_e Rd R  
dVaRcReV cVa`ceRS]V dVX^V\_e\_Z\_RTT`cUR\_TV hZeY 8TT` f\_eZ\_X JeR\_URcU : `UZWZTReZ`\_ %q8J : r& .4, (qJvX^V\_e I Va`ceZ\_X`r  
GcVgZ` fd]j( eYV WZ\_R\_TZR] Z\_`c^ReZ`\_ `W`c eYzD `aVcReZ\_X dVX^V\_e hRd RXXcVXReVU hZeY eYV SfdZ\_VddVd hZeYZ\_eYV EVhd DVUZR  
`aVcReZ\_X dVX^V\_e R\_U( e`XVeYVc( W`c^VU eYV EVhd R\_U @ `W`c^ReZ`\_ J VcgZTVd cVa`ceRS]V dVX^V\_e\* = ] ] `hZ\_X eYV dR]V `W Zed EVhd  
8 ^VcZTR DRc\VeZ\_X SfdZ\_Vdd\_Z\_eYV W` fceY bfRceVc `W WzdTR] . . . , R\_U\_Z\_T` \_[f\_TeZ` \_ hZeY eYV : `^aR\_j]sd R\_\_FR] SFUXVeZ\_X  
ac`TVdd( eYV : `^aR\_j UVeVc^Z\_VU eYRe RXXcVXReZ`\_ hRd \_ ` ]` \_XVc Raac`acZReV Rd TVceRZ`\_ `W eYV cV^RZ\_Z\_X SfdZ\_VddVd \_ ` ]` \_XVc  
dYRcVU dZ^Z]Rc VT` \_ `^ZT TYRcTeVcZdeZTd\* 8 d R cVdf]e( eYV : `^aR\_j YRd cVgZdVU Zed YZde`cZTR] Uzdt]` dfcVd W`c eYV acZ`c aVcZ`U e`  
cVW]VTe eYV \_Vh ; `h A` \_Vd R\_U EVhd DVUZR cVa`ceRS]V dVX^V\_ed\*

: VceRZ\_cVT]RddZWZTReZ`\_d YRgV SVV` ^RUV e` eYV acZ`c aVcZ`U T`\_d` ]ZUReVU WZ\_R\_TZR] deReV^V\_ed e` T`\_W`c^ e` eYV TfccV\_e jVRc  
acVdV\_eReZ`\_\* JavTZWZTR]j( eYV : `^aR\_j cVT]RddZWZVU TVceRZ`\_ T`ded Re eYV FeYVc dVX^V\_e eYRe hVcV acVgZ` fd]j Z\_T]fUVU hZeYZ\_  
JV]JZ\_X(XV\_VcR] R\_U RU^Z\_ZdecReZgV e` FaVcReZ\_X ViaV\_dVd\* =`c eYV eYcVv ^`\_eYd V\_UVU JVaeV^SVc / , ( . , -5( eYVdV  
cVT]RddZWZTReZ`\_d Z\_TcVRdVU FaVcReZ\_X ViaV\_dVd Sj !- ^Z]Z`\_\*

KYV f\_RfUZeVU T`\_d` ]ZUReVU WZ\_R\_TZR] deReV^V\_ed RcV cVWVccVU e` YVcVZ\_Rd eYV q : `^aR\_j]ZUReVU =Z\_R\_TZR] JeReV^V\_ed\*r KYV  
T`\_d` ]ZUReVU deReV^V\_ed `W`aVcReZ`\_d RcV cVWVccVU e` YVcVZ\_Rd eYV qJeReV^V\_ed `W FaVcReZ`\_d\*r KYV T`\_d` ]ZUReVU SR]R\_TV dYVved  
RcV cVWVccVU e` YVcVZ\_Rd eYV q9R]R\_TV JYVved\*r KYV T`\_d` ]ZUReVU deReV^V\_ed `W TRdY W]`hd RcV cVWVccVU e` YVcVZ\_Rd eYV  
qJeReV^V\_ed `W : RdY =]`hd\*r KYV : `^aR\_j]ZUReVU =Z\_R\_TZR] JeReV^V\_ed YRgV SVV` acVaRcVU Z\_RTT`cUR\_TV hZeY XV\_VcR]j RTTVaeVU  
RTT` f\_eZ\_X acZ`Tza]Vd Z\_eYV L\_ZeVU JeReVd `W 8 ^VcZTR %q> 8 8Grk\*

DR\_RXV^V\_esd UzdtfddZ`\_R\_U\_R\_R]jdZd `W WZ\_R\_TZR] T`\_UZeZ`\_R\_U cVdf]ed `W`aVcReZ`\_d Zd Z\_eV\_UVU e` YV]a ac`gZUV R\_  
f\_UVcdeR\_UZ\_X `W eYV : `^aR\_j]sd WZ\_R\_TZR] T`\_UZeZ`\_( TYR\_XVd Z\_WZ\_R\_TZR] T`\_UZeZ`\_R\_U cVdf]ed `W`aVcReZ`\_d\* KYZd UzdtfddZ`\_Zd

T 7?LNEML H@ 5 I?K;MCHGL p KYZd dVTeZ`\_ac`gZUVd R\_ R\_R]jdZd `W eYV : `^aR\_jsd cVdf]ed `W `aVcReZ`\_d W`c eYV eYcVV  
 ^`\_eYd V\_UVU JVaeV^SVc /,(. . . , R\_U . , -5\* KYZd R\_R]jdZd Zd acVdV\_eVU ` \_ S`eY R T`\_d` JZUREVU SRdZd R\_U R  
 dVX^V\_e SRdZd\* J faa]V^V\_eR] cVgV\_fV Z\_W`c^ReZ`\_Zd R]d` Z\_T]fUVU W`c eVa`ceZ\_X f\_Zed hZeYZ\_ TVceRZ\_ dVX^V\_ed R\_U  
 Zd acVdV\_eVU ` \_ R Xc`dd SRdZd( SVW`cV V]Z^Z\_ReZ`\_d Z\_T`\_d` JZUREZ`\_\*@\_ RUUZeZ`\_( R ScZVW UVdTcZaeZ`\_Zd ac`gZUVU `W  
 dZX\_ZWZTR\_e ecR\_dRTEZ`\_d R\_U VgV\_ed eYRe Z^aRTE eYV T` ^aRcRSZ]Ze j `W eYV cVdf]ed SVZ\_X R\_R]jkVU\*

T 2CJNC>CMR ;G> , ;ICM;E 7?LHNK=?L p KYZd dVTeZ`\_ac`gZUVd R\_ R\_R]jdZd `W eYV : `^aR\_jsd TRdY W]`hd W`c eYV eYcVV  
 ^`\_eYd V\_UVU JVaeV^SVc /,(. . . , R\_U . , -5( Rd hV]] Rd R UZdTfddZ`\_ `W eYV : `^aR\_jsd WZ\_R\_TZR] RccR\_XV^V\_ed R\_U  
 `fedeR\_UZ\_X T` ^ ^Ze^V\_ed( S`eY WZc^ R\_U T`\_eZ\_XV\_e( eYRe ViZdeVU Rd `W JVaeV^SVc /,(. . . ,\*

**DK:GK>: L D; I = : 8DBE6CNkH 7JH>C:HH:H**

KYV : `^aR\_j ^R\_RXVd R\_U cVa`ced Zed SfdZ\_VddVd Z\_eYV W`]]`hZ\_X dZi dVX^V\_ed6

m -CACM;E 7?;E . LM;M? 8?KOC=?L p KYV ;ZXZeR] I VR] <deReV JVcgtZTVd dVX^V\_e T`\_dZded `W eYV : `^aR\_jsd 2-\*2 " Z\_eVcVde  
 Z\_ I<8 >c`fa R\_U 4, " Z\_eVcVde Z\_ D`gV\* KYV cV^RZ\_Z\_X . , " Z\_eVcVde Z\_ D`gV Zd YV]U S j I<8 >c`fa\* I<8  
 >c`fa Zd R ^Rc\Ve]]VRUZ\_X UZXZeR] ^VUZR SfdZ\_Vdd daVTZR]ZkZ\_X Z\_ ac`aVcej R\_U Zd JZdeVU ` \_eYV 8 fdecR]ZR\_ JVTfcZeZVd



.E;K;

@\_ FTe`SVc . . . , ( I<8 >c` fa V\_eVcVU Z\_e` R SZ\_UZ\_X RXcVV^V\_e e` Z\_TcVRdV Zed` h\_VcdYZa Z\_eVcVde Z\_ <]RcR KVTY\_` ]` XZVd GeV\* CeU\*  
%q<]RcRrk\* I<8 >c` fa TfccV\_e]j Y` ]Ud R -/\*1 " Z\_eVcVde R\_U` \_ T` ^a]VeZ`\_( Zd ViaVTeVU e` YRgV R dYRcVY` ]UZ\_X `W SvehVV\_  
O3\*. " R\_U 2-\* - " R\_U Y` ]U WZgV `W \_Z\_V dVRed` \_ <]RcRsd 9` RcU` W ;ZcVTe`cd\* La` \_ T` ^a]VeZ` \_ `W eYV ecR\_dRTeZ`\_( I<8 >c` fa  
hZ]] T` \_d` ]ZUReV <]RcRsd WZ\_R\_TZR] cVdf]ed\* KYV e`eR] T` \_dZUVcR T` \_d YV e`eR] T` a]VZ`\_( I<8 >c` fa

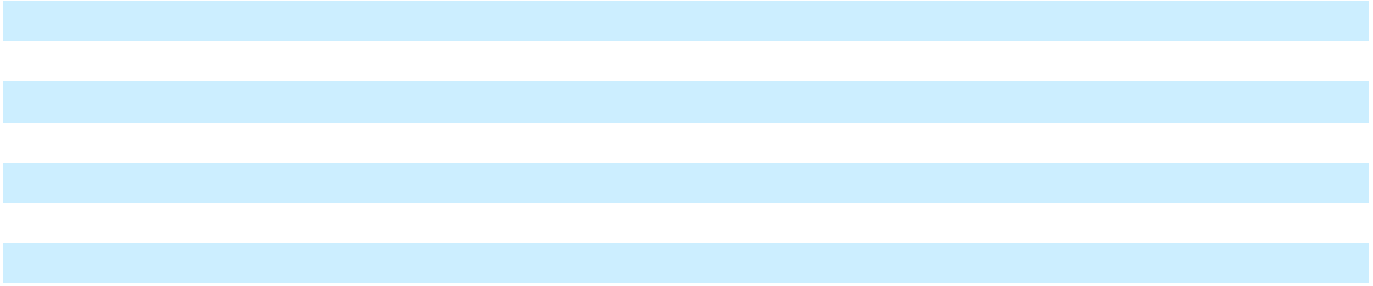
\_VhdaRaVcd Z\_ 8 fdecR]ZR\* KYV Z^ aRTe `W W`cVZX\_ TfccV\_Tj W]fTefReZ`\_d `W eYV L\*J\* U`]]Rc R XRZ\_de ]`TR] TfccV\_TZVd cVdf]eVU Z\_ R\_

4?M CG=HF? ;MMK<NM; <E? MH GHG=HG MKHEECGA CGM?K?LML p EVe Z\_T` ^V ReecZS feRS]V e` \_`\_T`\_ec` ]Z\_X Z\_eVcVded UVTeVRdVU Sj !/  
^Z]]Z`\_( `c -5 "( W`c eYV eYcVV ^`\_eYd V\_UVU JVaeV^SVc /,( . . . , Rd T` ^aRcVU e` eYV T`ccVda`\_UZ\_X aVcZ`U `W WZdTR] . . . ,\*

8?AF?GM \*G;ERLCL

JVX^V\_e <9@K; 8 Zd UVWZ\_VU Rd cVgV\_fVd ]Vdd `aVcReZ\_X ViaV\_dVd R\_U dV]]Z\_X( XV\_VcR] R\_U RU^Z\_ZdecReZgV ViaV\_dVd\* JVX^V\_e  
<9@K; 8 U`Vd \_`e Z\_T]fUV6 UVacVTZReZ`\_R\_U R^`ceZkReZ`\_(Z^aRZc^V\_e R\_U cVdecfTefcZ\_X TYRcXVd( VbfZej ]`ddVd `W RWWZ]ZReVd(  
Z\_eVcVde %ViaV\_dV& Z\_T` ^V( \_Ve( `eYVc( \_Ve R\_U Z\_T` ^V eRi %ViaV\_dV& SV\_VWZe\* JVX^V\_e <9@K; 8 ^Rj \_`e SV T` ^aRcRS]V e`

KYV W^JJ` hZ\_X eRSJV dVed W`ceY eYV : `^ aR\_jsd IVgV\_fVd R\_U JvX^V\_e <9@K; 8 Sj dVX^V\_e W`c eYV eYcVv ^`\_eYd V\_UVU  
JVaeV^SVc /,( .,., R\_U ., -56



8N<L=KCI\CHG :C>?H 8?KOC=?L %./ " R\_U . . " `W eYV :` ^ aR\_jsd T`\_d` ]ZUReVU cVgV\_fVd Z\_eYV eYcVV ^` \_eYd V\_UVU JVaeV^SVc /,(  
 .,., R\_U . . -5( cVdaVTeZgV]j&

	;_b dXU dXbUU ]_^dXc U^TUT HU` dU ] RUB .+'			
	-+--+	-+,4	8XQ^WU	" 8XQ^WU
%Z_ ^Z]Z`_d(ViTvae " &			7UddUb*\$L_bcU%	
I VgV_fVd6				
:ZcTf]ReZ`_ R_U dfSdTcZaeZ`_	! 0/3	! 01-	! %-0&	%/& "
8UgVceZdZ_X	1,	1-	%-&	%.& "
FeYVc	5	-.	%/&	%.1& "
I_dQ\ GUFU^eUc	/41	0,/	,\$3%	\$/% "
FaVcReZ_X ViaV_dVd	%///&	%/00&	--	/ "
JV]]Z_X(XV_VcR] R_U RU^Z_ZdecReZgV	%41&	%45&	0	0 "
HUW ] U^d : 7>I 9 6	! 23	! 3,	! \$.%	\$/% "

=`c eYV eYcVV ^` \_eYd V\_UVU JVaeV^SVc /,( . . . , ( cVgV\_fVd Re eYV J fSdTcZaeZ`\_ MZUV` J VcgZTVd dVX^V\_e UVTeVRdVU !-4 ^Z]]Z`\_(  
 `c 0 " ( Rd T` ^ aRcVU e` eYV T`ccVda`\_UZ\_X aVcZ`U `W WzdTR] . . . , \* KYV cVgV\_fV UVTeVRdV hRd acZ^RcZ]j UfV e` ]` hVc dfSdTcZaeZ`\_  
 cVgV\_fVd cVdf]eZ\_X Wc` ^ WvhVc cVdZUV\_eZR] Sc` RUTRde dfSdTcZSVcd R\_U eYV !-0 ^Z]]Z`\_ UVTeVRdV Z` T` ^ ^VcTZR] dfSdTcZaeZ`\_  
 cVgV\_fVd UfV e` `X`Z\_X cVdecZTeZ`\_d`\_ a fSd( T]fSd R\_U `eYVc T` ^ ^VcTZR] gV\_fVd UfV e` : FM@ ; )-5\* KYV UVTeVRdVd Z` cVgV\_fVd  
 hVcV aRceZR]]j `WdVe Sj eYV a` dZelgV Z^ aRte `W W`cVZX\_TfccV\_Tj W]fTefReZ`\_d R\_U !5 ^Z]]Z`\_ `W YZXYVc cVgV\_fVd Wc` ^ FKK  
 ac`UfTed( acZ^RcZ]j BRj` R\_U 9Z\_XV\* KYV Z^ aRte `W W`cVZX\_TfccV\_Tj W]fTefReZ`\_d `W eYV L\*J\*U` ]]Rc RXRZ\_de ]`TR] TfccV\_TZVd  
 cVdf]eVU Z` R cVgV\_fV Z`TcVRdV `W !. , ^Z]]Z`\_( `c / " ( W`c eYV eYcVV ^` \_eYd V\_UVU JVaeV^SVc /,( . . . , Rd T` ^ aRcVU e` eYV  
 T`ccVda`\_UZ\_X aVcZ`U `W WzdTR] . . . , \*

=`c eYV eYcVV ^` \_eYd V\_UVU JVaeV^SVc /,( . . . , ( JVX^V\_e <9@K ; 8 UVTeVRdVU !/ ^Z]]Z`\_( `c 0 " ( Rd T` ^ aRcVU e` eYV  
 T`ccVda`\_UZ\_X aVcZ`U `W WzdTR] . . . , \* KYV JVX^V\_e <9@K ; 8 UVTeVRdV hRd acZ^RcZ]j UfV e` eYV ]` hVc cVgV\_fVd UzdTfddVU RS`gV(  
 aRceZR]]j `WdVe Sj T` de dRgZ\_Xd acZ^RcZ]j UfV e` ]` hVc V\_eVceRZ`\_V\_e ac` fTed( acZF



%T& K`eR] R\_U GRZU =` ieV] E`h dfSdTcZSVcd Rd `W JVaeV^SVc /,( . . . , R\_U . , -5\* GRZU =` ieV] E`h dfSdTcZSVcd ViT]fUVd  
 Tfde` ^Vcd cVTVZgZ\_X dVcgZTV W`c \_` TYRcXV f\_UVc TVceRZ`\_Vh dfSdTcZSVc ac`^`eZ`\_d\*  
 %U& K`eR] R\_U GRZU BRj` dfSdTcZSVcd Rd `W JVaeV^SVc /,( . . . , R\_U . , -5\* GRZU BRj` dfSdTcZSVcd ViT]fUVd Tfde` ^Vcd  
 cVTVZgZ\_X dVcgZTV W`c \_` TYRcXV f\_UVc TVceRZ`\_Vh dfSdTcZSVc ac`^`eZ`\_d\*  
 %V& K`eR] R\_U GRZU 9Z\_XV dfSdTcZSVcd Rd `W JVaeV^SVc /,( . . . , \* 9Z\_XV hRd ]Rf\_TYVU ` \_ DRj . 1( . . . , \* GRZU 9Z\_XV  
 dfSdTcZSVcd ViT]fUVd Tfde` ^Vcd cVTVZgZ\_X dVcgZTV W`c \_` TYRcXV f\_UVc TVceRZ`\_Vh dfSdTcZSVc ac`^`eZ`\_d\*  
 %W& 8gVcRXV ^`\_eY]j Sc`RUTRde cVdZUV\_eZR] dfSdTcZaeZ`\_cVgV\_fVd aVc fVc %ViT]fUZ\_X Faefd& %9c`RUTRde 8 IGL& W`c eYV eYcVV  
 ^`\_eYd V\_UVU JVaeV^SVc /,( . . . , R\_U . , -5\*  
 %X& 9c`RUTRde cVdZUV\_eZR] dfSdTcZSVc TYfc`\_cReV %ViT]fUZ\_X Faefd& %9c`RUTRde J fSdTcZSVc : Yfc`& W`c eYV eYcVV ^`\_eYd V\_UVU  
 JVaeV^SVc /,( . . . , R\_U . , -5\* 9c`RUTRde dfSdTcZSVc TYfc`\_cVAcVdV\_ed eYV\_f^SVc `W TRS]V R\_U dReV]]ZeV cVdZUV\_eZR]  
 dfSdTcZSVcd hY`dV dVcgZTV Zd UzdT`\_VTevU( ViacVdVU Rd R aVcTV\_eRXV `W eYV RgVcRXV e`eR] \_f^SVc `W TRS]V R\_U dReV]]ZeV  
 cVdZUV\_eZR] dfSdTcZSVcd( acVdV\_eVU ` \_R\_ R\_\_fR] SRdZd\*

- HP IHG?L %-4 " R\_U -2 " `W eYV :`^`aR\_jsd T`\_d`]ZUReVU cVgV\_fVd Z\_eYV eYcVV ^`\_eYd V\_UVU JVaeV^SVc /,( . . . , R\_U . , -5(  
 cVdaVTeZgV]j&

%Z_ ^Z]Z`_d( ViTVae " &	;_b dXU dXbUU ]_^dXc U^TUT HU`dU ] RUB .+'			
	-+--+	-+,4	8XQ^WU	" 8XQ^WU
I VgV_fVd6			7UddUb*\$L_bcU%	
:ZcTf]ReZ`_R_U dfSdTcZaeZ`_	! /--	! .45	! ..	4 "
8UgVceZdZ_X	3,	40	%-0&	%-3& "
FeYVc	1	5	%0&	%00& "
<b>I_dQ\ GUfU^eUc</b>	<b>.31</b>	<b>.3-</b>	/	, "
FaVcReZ_X Vi aV_dVd	%-41&	%-43&	.	- "
JV]]Z_X( XV_VcR] R_U RU ^Z_ZdecReZgV	%-.5&	%-02&	-3	- . "
<b>HUW ] U^d : 7&gt;I96</b>	<b>! 2-</b>	<b>! /4</b>	<b>! -. </b>	<b>/2 "</b>

=`c eYV eYcVV ^`\_eYd V\_UVU JVaeV^SVc /,( . . . , (cVgV\_fVd Re eYV ;`h A`\_Vd dVX^V\_e Z\_TcVRdVU !O ^Z]Z`\_( `c - " (Rd T` ^aRcVU  
 e` eYV T`ccVda`\_UZ\_X aVcZ`U `W WZdTR] . . . , UcZgV\_Sj Xc` heY Z\_Tzcf]ReZ`\_R\_U dfSdTcZaeZ`\_cVgV\_fVd( aRceZR]]j `WdVe Sj R  
 UVT]Z\_V\_Z acZ\_e RUGVceZdZ\_X cVgV\_fVd\* ;ZXZeR] cVgV\_fVd Re eYV ;`h A`\_Vd dVX^V\_e cVAcVdV\_eVU 3/ " `W e`eR] cVgV\_fVd W`c eYV eYcVV  
 ^`\_eYd V\_UVU JVaeV^SVc /,( . . . , (Rd T` ^aRcVU e` 21 " Z\_eYV T`ccVda`\_UZ\_X aVcZ`U `W WZdTR] . . . , \* KYV Z^aRTe `W W`cVZX\_  
 TfccV\_Tj W]fTeReZ`\_d `W eYV L`J\* U`]]Rc RXRZ\_de ]`TR] TfccV\_TZVd cVdf]eVU Z\_R cVgV\_fVd Z\_TcVRdV `W !- ^Z]Z`\_W`c eYV eYcVV ^`\_eYd  
 V\_UVU JVaeV^SVc /,( . . . , Rd T` ^aRcVU e` eYV T`ccVda`\_UZ\_X aVcZ`U `W WZdTR] . . . , \*

/MVGYPXMSR ERH WYFWGVMTXMSR VIZIRYTW

%Z_ ^Z]Z`_d( ViTVae " &	;_b dXU dXbUU ]_^dXc U^TUT HU`dU ] RUB .+'			
	-+--+	-+,4	8XQ^WU	" 8XQ^WU
:ZcTf]ReZ`_R_U dfSdTcZaeZ`_cVgV_fVd6			7UddUb*\$L_bcU%	
:ZcTf]ReZ`_R_U `eYVc	! -54	! -34	! .,	-- "
Gc`WVddZ`_R] Z_W`c^ReZ`_SfdZ_Vdd	--/	---	.	. "
<b>I_dQ\ S]bSe]Qd]`^ Q^T ceRcSbi`d]`^ bUfU^eUc</b>	<b>! .,,</b>	<b>! -34</b>	<b>! --</b>	<b>3 "</b>

:ZcTf]ReZ`\_R\_U dfSdTcZaeZ`\_cVgV\_fVd Z\_TcVRdVU !. . ^Z]Z`\_( `c 4 " (UfcZ\_X eYV eYcVV ^`\_eYd V\_UVU JVaeV^SVc /,( . . . , Rd  
 T` ^aRcVU e` eYV T`ccVda`\_UZ\_X aVcZ`U `W WZdTR] . . . , \* :ZcTf]ReZ`\_R\_U `eYVc cVgV\_fVd Z\_TcVRdVU !. . ^Z]Z`\_( `c -- " (acZ^RcZ]j  
 UcZgV\_Sj Xc` heY Z\_UZXZeR])`\_]] dfSdTcZaeZ`\_d Re @LI C E P P ?XV I I X 6 S Y V R E P R\_U R ! 3 ^Z]Z`\_Z\_TcVRdV Z\_T`\_eV\_e ]ZTV\_dZ\_X  
 cVgV\_fVd( aRceZR]]j `WdVe Sj acZ\_e g` ]f^V UVT]Z\_Vd\* ;fcZ\_X eYV eYcVV ^`\_eYd V\_UVU





Z^aRte`w`cVZX\_TfccV\_Tj W]fTefReZ`\_d`w eYV L\*J\*U`]]Re RXRZ\_de ]`TR] TfccV\_TZVd cVdf]eVU\_Z\_R cVgV\_fV\_Z\_TcVRdV`w`!-5 ^Z]]Z`\_(  
`c`."(w`c eYV eYcVV ^`\_eYd V\_UVU JVaeV^SVc /,(. . . , Rd T`^aRcVU e` eYV T`ccVda`\_UZ\_X aVcZ`U`w WzdTR] . . . ,\*

JVX^V\_e<9@K; 8 Re eYV EVhd DVUZR dVX^V\_e UVT]Z\_VU !.5 ^Z]]Z`\_w`c eYV eYcVV ^`\_eYd V\_UVU JVaeV^SVc /,(. . . , Rd  
T`^aRcVU e` eYV T`ccVda`\_UZ\_X aVcZ`U`w WzdTR] . . . ,\* KYV UVTcVRdV hRd UfV e` eYV \_Ve !-. ^Z]]Z`\_Z^aRte Wc`^ eYV dR]Vd`w  
EVhd 8^VcZTR DRc\VeZ\_X R\_U L\_cf]j Z\_ WzdTR] . . . , R\_U e` ]`hVc T`\_ecZSfeZ`\_d Wc`^ EVhd :`ca 8 fdecR]ZR R\_U EVhd LB`w`!-/  
^Z]]Z`\_R\_U !5 ^Z]]Z`\_(cVdaVTeZgV]j( acZ^RcZ]j UcZgV\_Sj ]`hVc cVgV\_fVd( aRceZR]]j `WwdVe Sj T`de dRgZ\_Xd Z\_zeZReZgVd\*

: I [ W / SVT - YWXVEPME

IVgV\_fVd hVcV !. . . ^Z]]Z`\_w`c eYV eYcVV ^`\_eYd V\_UVU JVaeV^SVc /,(. . . ,(R UVTcVRdV`w`!11 ^Z]]Z`\_(`c`."(T`^aRcVU e`  
cVgV\_fVd`w`!.32 ^Z]]Z`\_Z\_eYV T`ccVda`\_UZ\_X aVcZ`U`w WzdTR] . . . ,\* KYV T]`dfcV`c ecR\_dZeZ`\_e` UZXZeR]`w cVXZ`\_R] R\_U  
T`^ ^ f\_Zej \_VhdaRaVcd Z\_ 8 fdecR]ZR cVdf]eVU\_Z\_R cVgV\_fV UVTcVRdV`w`!/1 ^Z]]Z`\_\* 8 UgVceZdZ\_X cVgV\_fVd UVTcVRdVU !1. ^Z]]Z`\_(  
acZ^RcZ]j UfV e` eYV T]`dfcV`c ecR\_dZeZ`\_e` UZXZeR]`w cVXZ`\_R] R\_U T`^ ^ f\_Zej \_VhdaRaVcd R\_U T`\_eZ\_fVU hVR\\_Vdd Z\_eYV acZ\_e

Tf^SVcd^ ^V UfV e` ]`TR] cVXF]ReZ`\_d( W`cVZX\_ ViTYR\_XV T`\_ec`]d R\_U eRiVd\* 8UUZeZ`\_R]]j( eYV ecR\_dWVc` W`f\_Ud Wc` ^` W`cVZX\_ [fcZdUZTeZ`\_d ^Rj cVdf]e L\_ YZYVc VWWWTeZgV eRi cReVd R\_U YZYVc TRdY aRZU W`c L\_T` ^V eRiVd W`c eYV :` ^`aR\_j\*

KYV acZ\_TZaR] fdVd` W` TRdY eYRe RWWWTe eYV :` ^`aR\_jsd ]ZbfZUZe] a`dZeZ`\_ Z\_T]fUV eYV W`]]` hZ\_X6` aVcReZ`\_R] Vi aV\_UZefcVd Z\_T]fUZ\_X V^a]` jVVT` ded R\_U aRaVc afcTYRdVd7 TRaZeR] Vi aV\_UZefcVd7 Z\_T` ^V eRi aRj ^V\_ed7 Z\_gVde^V\_ed Z\_ Rdd` TZReVU V\_eZeZVd7 RTbfZdZeZ`\_d7 R\_U eYV cVaRj ^V\_e` W` UVSe R\_U cV]ReVU Z\_eVcVde\* @\_ RUUZeZ`\_e` eYV RTbfZdZeZ`\_d R\_U UZda`dZeZ`\_d UZdT]`dVU V]dVhYVcV( eYV :` ^`aR\_j YRd VgR]fReVU( R\_U Vi aVTed e` T`\_eZ`\_fV e` VgR]fReV( a`ddZS]V W`fefcV RTbfZdZeZ`\_d R\_U UZda`dZeZ`\_d` W`TVceRZ\_ SfdZ\_VddVd\* JfTY ecR\_dRTeZ`\_d ^Rj SV ^ReVcZr] R\_U ^Rj Z\_g`]gV TRdY( eYV ZddfR\_TV` W` eYV :` ^`aR\_jsd dVTfcZeZVd` c` eYV Rddf ^aeZ`\_` W`Z\_UVSeVU\_Vdd\*

**0LLN?K 6NK=B;L?L H@ . JNCMR 8?=?NKMC?L**

KYV :` ^`aR\_j UZU`\_e afcTYRdV R\_j` W`Zed :]Rdd 8 :` ^` ^` \_ Je`T\ `c :]Rdd 9 :` ^` ^` \_ Je`T\ UfcZ\_X eYV eYcVv ^`\_eYd V\_UVU JVaev^SVc /,( . . . , R\_U . , -5\*

**- (0C>?G>L**

@\_ 8 fXfde . . . ,( eYV :` ^`aR\_jsd 9`RcU` W` ; ZcVTe`cd %qeYV 9`RcU` W` ; ZcVTe`cdr& UVT]RcVU R dV^Z)R\_\_fR] TRdY UZgZUV\_U` W` !,\*, - , aVc dYRcV W`c :]Rdd 8 :` ^` ^` \_ Je`T\ R\_U :]Rdd 9 :` ^` ^` \_ Je`T\ \* KYZd UZgZUV\_U hRd aRZU`\_ FTe`SVc -O( . . . , e` de`T\Y` ]UVcd` W`cVT`cU Rd` W` JVaev^SVc -2( . . . , \* KYV eZ^Z\_X( UVT]RcReZ`\_( R^`f\_e R\_U aRj ^V\_e` W` W`fefcV UZgZUV\_Ud e` de`T\Y` ]UVcd( ZW R\_j( Zd hZeYZ`\_eYV UZdTcVeZ`\_` W` eYV 9`RcU` W` ; ZcVTe`cd\* KYV 9`RcU` W` ; ZcVTe`cds UVTZdZ`\_d cVXRcUZ\_X eYV aRj ^V\_e` W` W`fefcV UZgZUV\_Ud hZ]] UVaV\_U` \_ ^R\_j WRTe`cd( Z\_T]fUZ\_X eYV :` ^`aR\_jsd WZ\_R\_TZR] T`\_UZeZ`\_( VRc\_Z\_Xd( TRaZeR] cVbfZcV^V\_ed R\_U UVSe WRTZ]Ze] T`\_gV\_R\_ed( `eYVc T`\_ecRTefR] cVdecZTeZ`\_d( Rd hV]] Rd ]VXR] cVbfZcV^V\_ed( cVXF]Re`cj T`\_decRZ\_ed( Z\_Ufdecj acRTeZTV( ^Rc\Ve\_g`]ReZ]Ze] R\_U` eYVc WRTe`cd eYRe eYV 9`RcU` W` ; ZcVTe`cd UVV^d cV]VgR\_e\*

**8HNK=?L ;G> 9L?L H@ , ;LB U /HK MB? MBK?? FHGMBL ?G>?? 8?I!F<?K (%# '%% 0?KLNL MB? MBK?? FHGMBL ?G>?? 8?I!F<?K (%# '%&)**

EVe TRdY ac`gZUVU Sj` aVcReZ\_X RTeZgZeZVd W`c eYV eYcVv ^`\_eYd V\_UVU JVaev^SVc /,( . . . , R\_U . , -5 hRd Rd W`]]` hd %Z\_ ^Z]]Z`\_d&6 ;\_b dXU dXbUU ]\_`dXc U^TUT HU`dU ] RUB .+'

EVe TRdY ac`gZUVU Sj` aVcReZ_X RTeZgZeZVd	! -11 !	-.4
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EVe TRdY ac`gZUVU Sj` aVcReZ\_X RTeZgZeZVd Z\_TcVRdVU Sj` !-. 4 ^Z]]Z`\_ W`c eYV eYcVv ^`\_eYd V\_UVU JVaev^SVc /,( . . . , Rd T`^aRcVU e` eYV eYcVv ^`\_eYd V\_UVU JVaev^SVc /,( . . . , -5\* KYV Z\_TcVRdV hRd acZ^RcZ]j UfV e` YZYVc K`eR] JVX^V\_e <9@K ; 8 R\_U ]` hVc h`c`Z\_X TRaZeR]\*

EVe TRdY fdVU Z\_L\_gVdeZ\_X RTeZgZeZVd W`c eYV eYcVv ^`\_eYd V\_UVU JVaev^SVc /,( . . . , R\_U . , -5 hRd Rd W`]]` hd %Z\_ ^Z]]Z`\_d&6 ;\_b dXU dXbUU ]\_`dXc U^TUT HU`dU ] RUB .+'

EVe TRdY fdVU Z_L_gVdeZ_X RTeZgZeZVd	! %52& !	% - -4&
--------------------------------------	----------	---------

EVe TRdY fdVU Z\_L\_gVdeZ\_X RTeZgZeZVd UVTcVRdVU Sj` !. . ^Z]]Z`\_ W`c eYV eYcVv ^`\_eYd V\_UVU JVaev^SVc /,( . . . , (Rd T`^aRcVU e` eYV eYcVv ^`\_eYd V\_UVU JVaev^SVc /,( . . . , -5\* ; fcZ\_X eYV eYcVv ^`\_eYd V\_UVU JVaev^SVc /,( . . . , (eYV :` ^`aR\_j fdVU !5/ ^Z]]Z`\_` W` TRdY W`c TRaZeR] Vi aV\_UZefcVd( `W` hYZTY !1- ^Z]]Z`\_cV]ReVU e` ==`ieV]\*

; fcZ\_X eYV eYcVv ^`\_eYd V\_UVU JVaev^SVc /,( . . . , -5( eYV :` ^`aR\_j fdVU !- -3 ^Z]]Z`\_` W` TRdY W`c TRaZeR] Vi aV\_UZefcVd( `W` hYZTY !22 ^Z]]Z`\_cV]ReVU e` ==`ieV]\*

EVe TRdY fdVU Z\_WZ\_R\_TZ\_X RTeZgZeZVd W`c eYV eYcVv ^`\_eYd V\_UVU JVaev^SVc /,( . . . , R\_U . , -5 hRd Rd W`]]` hd %Z\_ ^Z]]Z`\_d&6

;fcZ\_X eYV eYcVV ^`\_eYd V\_UVU JVaeV^SVc /,(. , -5(eYV :`^aR\_j cVarZU !.5, ^Z]Z`\_`W S`cc`hZ\_Xd cV]ReVU e` =`ieV] R\_U ^RUV UzgzUV\_U aRj ^V\_ed `W !.. ^Z]Z`\_e` I<8 >c`fa ^Z`cZej de`T\Y`]UVed\* KYV \_Ve TRdY fdVU Z\_ WZ\_R\_TZ\_X RTeZgZeZVd W`c eYV eYcVV ^`\_eYd V\_UVU JVaeV^SVc /,(. , -5 hRd aRceZ[R]]j `WwVdV S\_j \_Vh S`cc`hZ\_Xd cV]ReVU e` =`ieV] `W !-55 ^Z]Z`\_R\_U eYV \_Ve dVee]V^V\_e `W YVUXVd `W !13 ^Z]Z`\_\*

7?=HG=CEC;MCHG H@ /K?? , ;LB /EHP \*0;CE;<E? MH 4?PL , HKIHK;MCHG

=cVV TRdY W]`h RgRZ]RS]V e` EVhd :`ca`cReZ`\_Zd R`\_)>8 8G WZ\_R\_TZR] ^VRdfcV UVWZ\_VU Rd\_Ve TRdY ac`gzUVU S\_j `aVcReZ\_X RTeZgZeZVd( ]Vdd TRaZeR] Vi aV\_UZefcVd %qWcVV TRdY W]`h r&( ]Vdd I<8 >c`fa WcVV TRdY W]`h (a]fd TRdY UzgzUV\_Ud cVTVZgVU Wc`^ I<8 >c`fa\* =cVV TRdY W]`h RgRZ]RS]V e` EVhd :`ca`cReZ`\_dY`f]U SV T`\_dZUVcVU Z\_ RUUZeZ`\_e`(\_`e Rd R dfSdeZefV W`c( TRdY W]`h d Wc`^ `aVcReZ`\_d R\_U `eYVc ^VRdfcVd `W WZ\_R\_TZR] aVcW`c^aR\_TV cVa`ceVU Z\_ RTT`cUR\_TV hZeY >8 8G\* =cVV TRdY W]`h RgRZ]RS]V e` EVhd :`ca`cReZ`\_^Rj \_`e SV T`^aRcRS]V e` dZ^Z]Rc]j eZe]VU ^VRdfcVd cVa`ceVU S\_j `eYVc T`^aR\_ZVd( dZ\_TV T`^aR\_ZVd R\_U Z\_gVde`cd ^Rj UZWWVc Rd e` hYRe ZeV^d dY`f]U SV Z\_T]fUVU Z\_ eYV TR]Tf]ReZ`\_`W WcVV TRdY W]`h\*

KYV :`^aR\_j T`\_dZUVcVd WcVV TRdY W]`h RgRZ]RS]V e` EVhd :`ca`cReZ`\_e` ac`gzUV fdVWf] Z\_ W`c^ReZ`\_e` ^R\_RXV ^V\_e R\_U Z\_gVde`cd RS`fe eYV R^`f\_e `W TRdY eYRe Zd RgRZ]RS]V e` SV fdVU e` decV\_XeYV\_eYV :`^aR\_jsd SR]R\_TV dYVVe R\_U W`c decReVXZT `aa`cef\_ZeZVd Z\_T]fUZ\_X( R^`\_X `eYVcd( Z\_gVdeZ\_X Z\_ eYV :`^aR\_jsd SfdZ\_Vdd( decReVXZT RTbfZdZeZ`\_d( UzgzUV\_U aRj`fed R\_U cVafcTYRdZ\_X de`T`\* KYV :`^aR\_j SV]ZVgVd ViT]fUZ\_X I<8 >c`fasd WcVV TRdY W]`h R\_U Z\_T]fUZ\_X UzgzUV\_Ud cVTVZgVU Wc`^ I<8 >c`fa ac`gzUVd fdVcd `W Zed T`\_d`]ZUReVU WZ\_R\_TZR] deReV^V\_ed hZeY R ^VRdfcV `W eYV R^`f\_e `W TRdY W]`h eYRe Zd cVRUZ]j RgRZ]RS]V e` eYV :`^aR\_j( Rd I<8 >c`fa Zd R dVaRcReV]j ]ZdeVU afS]ZT T`^aR\_j Z\_ 8 fdecR]ZR R\_U ^fde UVT]RcV R UzgzUV\_U Z\_ `cUVc W`c eYV :`^aR\_j e` YRgV RTTVdd e` Zed dYRcV `W I<8 >c`fasd TRdY SR]R\_TV\* KYV :`^aR\_j SV]ZVgVd WcVV TRdY W]`h RgRZ]RS]V e` EVhd :`ca`cReZ`\_ac`gzUVd R^`cV T`\_dVcgReZgV gZVh `W eYV :`^aR\_jsd WcVV TRdY W]`h SVTRfdV eYZd acVdV\_eReZ`\_Z\_T]fUVd `]j eYRe R^`f\_e `W TRdY eYV :`^aR\_j RTefR]]j cVTVZgVd Wc`^ I<8 >c`fa( hYZTY YRd XV\_VcR]]j SVV\_]`h Vc eYR\_eYV :`^aR\_jsd f\_RU[fdeVU WcVV TRdY W]`h\*

8 ]Z^ZeReZ`\_`W WcVV TRdY W]`h RgRZ]RS]V e` EVhd :`ca`cReZ`\_Zd eYRe Ze U`Vd `e cVacVdV\_e eYV e`eR] Z\_TcVRdV `c UVTCVRdV Z\_ eYV TRdY SR]R\_TV W`c eYV aVcZ`U\* DR\_RXV ^V\_e T`^aV\_dReVd W`c eYV ]Z^ZeReZ`\_`W WcVV TRdY W]`h RgRZ]RS]V e` EVhd :`ca`cReZ`\_S\_j R]d`cV]jZ\_X`\_eYV \_Ve TYR\_XV Z\_ TRdY R\_U TRdY VbFZgR]V\_ed Rd acVdV\_eVU Z\_ eYV JeReV^V\_ed `W :RdY =]`hd acVaRcVU Z\_ RTT`cUR\_TV hZeY >8 8G hYZTY Z\_T`ca`cReV R]] TRdY ^`gV^V\_ed UfcZ\_X eYV aVcZ`U\*

KYV W`]]`h Z\_X eRS]V acVdV\_ed R cVT`\_TZ]ZReZ`\_`W \_Ve TRdY ac`gzUVU S\_j `aVcReZ\_X RTeZgZeZVd e` WcVV TRdY W]`h RgRZ]RS]V e` EVhd :`ca`cReZ`\_6

	;_b dXU dXbUU ]_`dXc U^TUT HU`dU ]RUb .+`	
	+++	+,4
	\$Y^ ]\ Y`^c%	
EVe TRdY ac`gzUVU S_j `aVcReZ_X RTeZgZeZVd	!	-11 ! .3
CVdd6 :RaZeR] Vi aV_UZefcVd		%5/& %--3&
		2. %5,&
CVdd6 I<8 >c`fa WcVV TRdY W]`h		%.5& %.4&
G]fd6 :RdY UzgzUV_Ud cVTVZgVU Wc`^ I<8 >c`fa		/ . /1
=cVV TRdY W]`h RgRZ]RS]V e` EVhd :`ca`cReZ`_	!	21 ! %4/&

=cVV TRdY W]`h RgRZ]RS]V e` EVhd :`ca`cReZ`\_Z\_TcVRdVU S\_j !-04 ^Z]Z`\_Z\_ eYV eYcVV

I<8 >c` fa YRd RTTVdd e` R\_ 8 ! . , ^Z]]Z` \_ `gVcUcRWe WRTZ]Ze j %eYV q. . . , FgVcUcRWe =RTZ]Ze j r&\* KYV . . . , FgVcUcRWe =RTZ]Ze j Zd R\_ f\_T` ^ ^ZeVU WRTZ]Ze j eYRe hZ]] SV cVgZVhVU R\_\_fR]]j Sj eYV JV\_UVc R\_U SVRcd Z\_eVcVde Re R cReV SRdVU ` \_ eYV JV\_UVcsd SV\_TY ^Rc\ S`cc` hZ\_X cReV ]Vdd R UZdT` f\_e `W O\* . . " \* KYV . . . , FgVcUcRWe =RTZ]Ze j TRccZVd R\_ R\_\_fR] WRTZ]Ze j WVV `W ,\*-1 " `W eYV 8 ! . , ^Z]]Z` \_

>I : B /) 8DCIGDAH 6C9 EGD8 : 9 JG : H

\$Q% 9YcS\cebU 8\_^db\_\c Q^T Eb\_SUTebUc

KYV : ^ aR\_jsd ^R\_RXV^V\_e( hZeY eYV aRceZTzReZ`\_ `W eYV : ^ aR\_jsd : YZVW <iVTfeZgV FWWWZTVc R\_U : YZVW =Z\_R\_TZR] FWWWZTVc( YRd VgR]fReVU eYV VWWWTeZgV\_Vdd `W eYV : ^ aR\_jsd Uzdt]`dfcV T`\_ec`]d R\_U ac`TVUfcVd %Rd dfTY eVc^ Zd UVWZ\_VU Z\_ I f]Vd - /R)- 1%V& R\_U - 1%U&)- 1%V& f\_UVc eYV JVTfcZeZVd <iTYR\_XV 8Te `W -5/O( Rd R^V\_UVU %eYV q<iTYR\_XV 8Ter&& Rd `W eYV V\_U `W eYV aVcZ`U T`gVcVU Sj eYZd bfRceVc]j cVa`ce\* 9RdVU ` \_ dfTY VgR]fReZ`\_( eYV : ^ aR\_jsd : YZVW <iVTfeZgV FWWWZTVc R\_U : YZVW =Z\_R\_TZR] FWWWZTVc YRgV T`\_T]fUVU eYRe( Rd `W eYV V\_U `W dfTY aVcZ`U( eYV : ^ aR\_jsd Uzdt]`dfcV T`\_ec`]d R\_U ac`TVUfcVd hVcV VWWWTeZgV Z\_ cVT`cUZ\_X( ac`TVddZ\_X( df^ ^RcZkZ\_X R\_U cVa`ceZ\_X( ` \_ R eZ^V]j SRdZd( Z\_W`c^ReZ`\_ cVbfZcVU e` SV Uzdt]`dVU Sj eYV : ^ aR\_j Z\_ eYV cVa`ced eYRe Ze WZ]Vd `c dfS^Zed f\_UVc eYV <iTYR\_XV 8Te R\_U hVcV VWWWTeZgV Z\_ V\_dfcZ\_X eYRe Z\_W`c^ReZ`\_ cVbfZcVU e` SV Uzdt]`dVU Sj eYV : ^ aR\_j Z\_ eYV cVa`ced Ze WZ]Vd `c dfS^Zed f\_UVc eYV <iTYR\_XV 8Te Zd RTTf^ f]ReVU R\_U T` ^ ^ f\_ZTReVU e` eYV : ^ aR\_jsd ^R\_RXV^V\_e( Z\_T]fUZ\_X eYV : ^ aR\_jsd : YZVW <iVTfeZgV FWWWZTVc R\_U : YZVW =Z\_R\_TZR] FWWWZTVc( Rd Raac`acZReV e` R]]` h eZ^V]j UVTZdZ`\_d cVXRcUZ\_X cVbfZcVU Uzdt]`dfcV\*

\$R% >^dUb^Q\ 8\_^db\_\ DfUb ;I^Q^S\Q\ GU`\_bdI^W

KYVcV YRd SVV`\_` TYR\_XV Z\_ eYV : ^ aR\_jsd Z\_eVc\_R] T`\_ec`] `gVc WZ\_R\_TZR] cVa`ceZ\_X %Rd dfTY eVc^ Zd UVWZ\_VU Z\_ I f]Vd - /R)- 1%W& R\_U - 1%U&)- 1%W& f\_UVc eYV <iTYR\_XV 8Te& UfcZ\_X eYV : ^ aR\_jsd WZcde bfRceVc `W WZdTR] . . - eYRe YRd ^ReVcZR]]j RWWWTeVU( `c Zd cVRd`\_RS]]j ]Z[V]j e` ^ReVcZR]]j RWWWTe( eYV : ^ aR\_jsd Z\_eVc\_R] T`\_ec`] `gVc WZ\_R\_TZR] cVa`ceZ\_X\*



E6GI >>

>I : B ,) A : <6A EGD8 : : 9>C<H

JVV E`ev 5 p : `^ ^Ze^V\_ed R\_U : ` \_eZ\_XV\_TZVd Z\_eYV RTT` ^ aR\_jZ\_X : ` \_d` ]ZUReVU =Z\_R\_TZR] JeReV ^V\_ed\*

>I : B ,6) G>H@ ; 68 IDGH

KYVcV YRgV SVV\_` ^ReVcZR] TYR\_XVd e` eYV cZd\ WRTe`cd UVdTcZSVU Z\_eYV : ` ^ aR\_jsd . . . , =`c^ - ,)B( ViTVae Rd dVe W`ceY SV]` h6

/IVXEMR 2 // >YPIW ERH >IKYPEXMSRW ERH XLI ?ITEVEXMSR ERH OMWXVMFYXMSR -KVIIQIRX 9E] >IWXVIGX XLI /SQTER] 2VSO  
-GUYVIVRK SV ; [RMRK /IVXEMR @JTIW SJ -WWWXW MR XLI A%?%

KYV =VUVcR] : ` ^ ^ f\_ZTReZ`\_d : ` ^ ^ZddZ`\_ %q=: : r& YRd ac` ^ f]XReVU TVceRZ`\_cf]Vd R\_U cVXf]ReZ`\_d eYRe ]Z^Ze eYV T` ^ ^ ^`\_`  
`h\_VcdYZa `w cRUZ` R\_U eV]VgZdZ`\_ Sc` RUTRde deReZ`\_d R\_U eYV T` ^ ^ ^`\_` h\_VcdYZa `w Sc` RUTRde deReZ`\_d R\_U `VhdaRaVcd %eYV  
q9c` RUTRde Fh\_VcdYZa I f]Vdr& R\_U a]RTV T` ^ ^ VcTZR] cVdecZTeZ`\_d ` \_R TRS]V \_Ve h`c\ ac` XcR ^ ^ Vc Z\_ hYZTY R TRS]V eV]VgZdZ`\_`  
`aVcRe`c Y` ]ud R\_` h\_VcdYZa Z\_eVcVde %eYV qGc` XcR ^ 8TTVdd I f]Vdr&\* @ \_E` gV ^SVc . , -3(eYV =: : g`eVU e` VJZ^Z\_ReV eYV  
9c` RUTRde Fh\_VcdYZa I f]Vd( R\_U eYV `cUVc SVTR ^V VVVVTeZgV Z\_ =VScfRc j . , -4\* ?` hVgVc( Z\_JVaeV ^SVc . , -5( R aR\_V] `W eYV L\*J\*  
: `fce `W 8aaVR]d W`c eYV KYZcU : ZcTfZe %eYV qKYZcU : ZcTfZer& ZddfVU R\_ FcUVc gRTReZ\_X eYV =: : sd `cUVc R\_U cVZ\_deReZ\_X eYV  
9c` RUTRde Fh\_VcdYZa I f]Vd\* KYV =: : sd aVeZeZ`\_ W`c V\_ SR\_T cVgZVh hRd UV\_ZVU Z\_ E` gV ^SVc . , -5( W` ]]` hZ\_X hYZTY R `R\_UReV  
cVZ\_deReZ\_X eYV 9c` RUTRde Fh\_VcdYZa I f]Vd hRd ZddfVU\* KYV =: : R\_U TVceRZ`\_ eYVc aRceZVd W]VU GVeZeZ`\_d W`c NcZe `W : VceZ` cRZ  
hZeY eYV L\*J\* J facV ^V : `fce RaaVR]Z\_X eYV KYZcU : ZcTfZesd UVTZdZ`\_ hYZTY hVcV XcR\_eVU Z\_ FTe`SVc . . . , \*

L\_UVc eYV =: : sd cf]Vd W`c UVeVc ^Z\_Z\_X `h\_VcdYZa `w eYV ^VUZR RddVed UVdTcZSVU RS`gV( eYV DfcU`TY =R^Z]j Kcfdesd `h\_VcdYZa  
Z\_eVcVde Z\_S`eY eYV : ` ^ aR\_j R\_U =FO h` f]JU XV\_VcR]j] cVdf]e Z\_ VRTY T` ^ aR\_jsd SfdZ\_VddVd R\_U RddVed SVZ\_X ReecZSfeRS]V e` eYV  
DfcU`TY =R^Z]j Kcfde W`c afca`dVd `W UVeVc ^Z\_Z\_X T` ^ a]ZR\_TV hZeY eYV 9c` RUTRde Fh\_VcdYZa I f]Vd R\_U eYV Gc` XcR ^ 8TTVdd  
I f]Vd\* : ` \_dVbVfV\_e]j( eYV : ` ^ aR\_j ^Rj SV cVdecZTeVU W`c ^ eR\Z\_X RUGR\_eRXV `W TVceRZ`\_RTbfZdZeZ`\_ `c Z\_gVde ^V\_e `aa`cef\_ZeZVd(  
Z\_T]fUZ\_X( W`c ViR^a]V( eYV RTbfZdZeZ`\_ `W R\_VhdaRaVc Z\_eYV dR ^V `]TR] ^Rc\Ve Z\_ hYZTY =FO `h\_d `c `aVcReVd R eV]VgZdZ`\_`  
deReZ`\_ `@\_RUUZeZ`\_( eYV : ` ^ aR\_j RXcVVU Z\_eYV JVaRcReZ`\_ R\_U ; ZdecZSfeZ`\_ 8XcVV ^V\_e( Rd R ^V\_UVU( eYRe ZW Ze RTbfZcVd  
\_VhdaRaVcd( cRUZ` `c eV]VgZdZ`\_ Sc` RUTRde deReZ`\_d `c eV]VgZdZ`\_ Sc` RUTRde \_Ve h`c\ d Z\_eYV L\*J\* R\_U dfTY RTbfZdZeZ`\_ h` f]JU  
Z^ aVUV `c SV cVRd`\_RS]j ]Z\]V]j e` Z^ aVUV =FOsd SfdZ\_Vdd f\_UVc eYV 9c` RUTRde Fh\_VcdYZa I f]Vd `c R\_j `eYVc WUVcR] deRefeV `c  
=: : cf]V eYRe ]Z^Zed( UZcVTe]j `c Z\_UZcVTe]j( eYV `h\_VcdYZa `c T`\_ec` ] `W cRUZ` Sc` RUTRde deReZ`\_d( eV]VgZdZ`\_ Sc` RUTRde deReZ`\_d(  
\_VhdaRaVcd R\_U+`c eV]VgZdZ`\_ Sc` RUTRde \_Ve h`c\ d( Z\_T]fUZ\_X =FOsd RSZ]Ze j e` `h\_R\_U `aVcReV Zed eV]VgZdZ`\_ deReZ`\_d `c  
`eYVchZdV T` ^ a]j hZeY dfTY cf]Vd `c deRefeVd( eYV\_eYV : ` ^ aR\_j hZ] SV cVbfcZVU e` eR\V TVceRZ`\_RTeZ`\_d( Z\_T]fUZ\_X UZgVdeZ\_X  
RddVed( Z\_ `cUVc e` aVc ^Ze =FO e` Y` ]U Zed ^VUZR Z\_eVcVded R\_U e` T` ^ a]j hZeY dfTY cf]Vd `c deRefeVd\* KYV : ` ^ aR\_j R]d` RXcVVU  
\_`e` RTbfZcV R\_Z\_eVcVde Z\_R ^ f]eZTYR`\_V] gZUV` ac` XcR ^ ^Z\_X UZdecZSfe`c( Z\_T]fUZ\_X R TRS]V eV]VgZdZ`\_ `aVcRe`c( ZW dfTY  
RTbfZdZeZ`\_ h` f]JU dfS[VTe =FO e` eYV Gc` XcR ^ 8TTVdd I f]Vd e` hYZTY Ze Zd \_`e eYV dfS[VTe\* KYZd RXcVV ^V\_e VVVVTeZgV]j ]Z^Zed  
eYV RTeZgZeZVd `c decReVXZT SfdZ\_Vdd R]eVc\_ReZgVd RgRZ]RS]V e` eYV : ` ^ aR\_j ZW dfTY RTeZgZeZVd `c decReVXZT SfdZ\_Vdd R]eVc\_ReZgVd  
Z^ a]ZTReV eYV 9c` RUTRde Fh\_VcdYZa I f]Vd `c Gc` XcR ^ 8TTVdd I f]Vd `c R\_j `eYVc WUVcR] deRefeV `c =: : cf]V eYRe ]Z^Zed( UZcVTe]j  
`c Z\_UZcVTe]j( eYV `h\_VcdYZa `c T`\_ec` ] `W cRUZ` Sc` RUTRde deReZ`\_d( eV]VgZdZ`\_ Sc` RUTRde deReZ`\_d( \_VhdaRaVcd R\_U+`c eV]VgZdZ`\_`  
Sc` RUTRde \_Ve h`c\ d( R\_U h` f]JU Z^ aVUV `c SV cVRd`\_RS]j ]Z\]V]j e` Z^ aVUV =FOsd SfdZ\_Vdd\*

>I : B -) JCG : <HI : G : 9 H6A : HD ; : FJ>IN H : 8 JG>I : : H 6C9 JH : D ; EGD8 : : 9H

E`\_V\*

>I : B .) 9 : ; 6 JAIH JEDCH : C>DGH : 8 JG>I : : H

E`e Raa]ZTRS]V\*

>I : B /) B>C : H6 ; : IN 9>H8ADHJG : H

E`e Raa]ZTRS]V\*

>I : B 0) DI = : G>C ; DGB 6 I>DC

E`e Raa]ZTRS]V\*

>I : B 1) : M=>7>IH

%R& <iYZSzed\*

/- \*- [:YZVW <iVTfeZgV FWWZTVc : VceZWZTReZ` cVbfZcVU Sj I f|Vd -/R\)-O R U -1U\)-O f UVc eYV JVTfcZeZVd <iTYR XV 8Te `W -5/O\( Rd R^V UVU\\*'](#)

/- \*. [:YZVW =Z R TZR\] FWWZTVc : VceZWZTReZ` cVbfZcVU Sj I f|Vd -/R\)-O R U -1U\)-O f UVc eYV JVTfcZeZVd <iTYR XV 8Te `W -5/O\( Rd R^V UVU\\*'](#)

/ . \*- [: VceZWZTReZ` `W : YZVW <iVTfeZgV FWWZTVc R U : YZVW =Z R TZR\] FWWZTVc afcdfR e e` -4 L\\*J\\*: \\* JVTeZ` -/1,\( Rd RU` aeVU afcdfR e e` JVTeZ` 5,2 `W JRcSR Vd Fi|Vj 8Te `W . . . . \\*' '](#)

- , -

H><C6IJG:

GfcdFR\_e e` eYV cVbfZcV^V\_ed `W eYV JVTfcZeZVd <iTYR\_XV 8Te `W -5/0( eYV cVXZdecR\_e YRd Uf]j TRfdVU eYZd cVa`ce e` SV dZX\_VU ` \_Zed SVYR]W Sj eYV f\_UVcdZX\_VU eYVcVf\_e` Uf]j RfeY`czkVU\*

E<NJ : FIGFI8K@FE  
%IVXZdecR\_e&

9j6 +d+ JfdR\_ GR\_fTTZ`  
-----  
JfdR\_ GR\_fTTZ`  
: YZVW =Z\_R\_TZR] FWWZTVc

;ReV6 E`gV^SVc 2( . . . ,