



6] \ bS \ ba

<% < b] Rc QW\ %%%%%%%%%% *
<<% 4 ``WQZ

(% GVS US\ S' CZ RSPCHS] T bVS aWbg\$SWVbV aSaaW\ e WZ PS VSZR T] [GcSaRQ#)+ FS^bS[PS^#b] J SR\ SaRQ#) B Qj] PS')' (*%

)% GVS : S\ S' CZ4 aaS[PZg# Pg Wá `Sa] Zc bW\ - - &)+# RSQMSR bj Q\ dS\ S O VVV\$ ZsdSZ [SSbWU] T bVS : S\ S' CZ 4 aaS[PZg]\ bVS `SOZbW\] T bVS @WZ\ \ W[7 SdSZ ^ [S\ b :] CZa Q R] bVS` WbS` \ ObW\ CZg CU SSR RSdSZ ^ [S\ b U] CZa T] ` ^S a] \ a e WVRWCPWbWá] \ @] \ RQg#) * FS^bS[PS')' (*%

*% 5 g Wá `Sa] Zc bW\ - . & 0# bVS : S\ S' CZ4 aaS[PZg RSQMSR bj Q\ dS\ S O VVV\$ZsdSZ [SSbWU] \ \ cQSO RWO [Q S\ b] \ Gvc`aRQ#)- FS^bS[PS')' (*%

+% 5 g Wá `Sa] Zc bW\ - . & (0# bVS : S\ S' CZ4 aaS[PZg RSQMSR bj V] ZR O te] \$RQg VVV\$ZsdSZ RWZ ccS \ R\ bS O b] O

] UVObW\ Q

(+% GVS VWSZdSZ[SSbWU]TbVS : S\ S CZ4 aaS[PZg]\ \cQSO RWO[Q S\ be WZ

)% GVS VVV\$ZsdSZ RWZ UeS e WZ Q\ aWb]T T]c` ^Z\ Og [SSbWUa Q R T]c`
WbS` CQWWS [cZbWabOYSV] ZRS` `]c\ R bCPZSa# bj PS VSR CQJ` RWU bj bVS T]Z]e WU
aQSRcZl

(' O% %(^% % CZ\ Og [SSbWU!: S\ S`OZ4 aaS[PZg ; OZ!A]`bV?Oe \
5 cWRWU'''

(' O% %(^% % E]c\ R bCPZS (!6]\ TS\ S\ QS E]] [(!6]\ TS\ S\ QS 5 cWRWU'''

*\$ ^% % E]c\ R bCPZS) !6]\ TS\ S\ QS E]] [(!6]\ TS\ S\ QS 5 cWRWU'''

*\$ ^% % CZ\ Og [SSbWU!: S\ S`OZ4 aaS[PZg ; OZ!A]`bV?Oe \
5 cWRWU'''

(' O% %(^% % CZ\ Og [SSbWU!: S\ S`OZ4 aaS[PZg ; OZ!A]`bV?Oe \
5 cWRWU'''

(' O% %(^% % E]c\ R bCPZS * !6]\ TS\ S\ QS E]] [(!6]\ TS\ S\ QS 5 cWRWU'''

*\$ %' ^% % E]c\ R bCPZS + !6]\ TS\ S\ QS E]] [(!6]\ TS\ S\ QS 5 cWRWU'''

*\$ ^% % CZ\ Og [SSbWU!: S\ S`OZ4 aaS[PZg ; OZ!A]`bV?Oe \
5 cWRWU'''

)*% < b] Rc Q] `g abOs[S\ ha e WZ PS [ORS Pg bVS C SaWRS\ b]T bVS : S\ S`OZ
4 aaS[PZg#bVS FSQ SbOg\$: S\ S`OZ#bVS C SaWRS\ b]T bVS 8 Q]] [WQ R F] QWZ6]c\ QW#
Q S[WS\ b ^S`a] \ W bVS TWZR]T [W O W \ Q R RSdSZ ^ [S\ b Q R O [W Q b O bVS
PSUW\ WU]T bVS ^Z\ Og [SSbWU] \ bVS [] \ WU] TGvc` aRQg#* B Q] PS` %

) +% GVS bVS [Sa] T bVS T]c` `]c\ R bCPZSa e WZPS Qa T] Z]e a1

E]c\ R bCPZS (1 4 aaSaaWU bVS STISQna]T WbS\ O W \ OZ [W O W \] \ acatOWCPZS
RSdSZ ^ [S\ b Q R W S \ b W g W U `SZsdQ b ^ W W Sa W d W e] T bVS
^ S ^ O O W \] T bVS ^] ab\$) (, RSdSZ ^ [S\ b T Q Se] `Y

E]c\ R bCPZS) 1 @SQac`Sa bj S\ ac`S `Sa^SQb T] ` Q R ^] bSQW \] T bVS Vc [Q `W W ta
] T OZ [W Q ha#e W W ^ O b W Q Z O `SIS\ S\ QS bj e] [S\ Q R Q W R S \ # Qa
e SZZ Qa bj ^ SdS\ b Q R Q [P O b bVS a [c U U W U] T [W Q ha Q R
b O W W W W ^ S`a] \ a Q R bj S\ ac`S] `RS`Zg# `SUeZ O R a OIS
[W O W \

E]c\ R bCPZS * 1 FbS\ U bVS\ WU ^ O b S`a W Wa Q R Q] ^ S` O W \] \ WbS\ O W \ OZ
[W O W \ # [SQVQ W a bj STISQW S Zg W b S U O S [W O W \ W b
RSdSZ ^ [S\ b ^] Z Q W a Q R ^] [] b W U Q V S \ S\ QS O O Z Z S d S Z

E]c\ R bCPZS + 1 < bS\ O W \ OZ Q R `S U W \ OZ Z P]c` [] P W W g Q R W a W ^ O Q b] \
RSdSZ ^ [S\ b

), % G] OZ]e T] ` [G W c [^ O b W W O W \ e W W W bVS Z W WSR b W S Q i O W C P Z S #
abOs[S\ ha W bVS ^Z\ Og [SSbWUa Q R bVS `]c\ R bCPZS RWQ`aaW\ a e WZPS Z W WSR bj
T]c` [Wc b Sa#] \ bVS c\ RS` ab Q RWU b V O b V O e] c Z R \] b ^ SQe RS bVS RW b W c b W \] T
[] ` S S f b S \ a W S b S f ha %

) - % 4 Zwb]Ta^SOYS'a W]^S\ T]^ WaQ WbW\ #] \ OTWabSQ [S#TWabfaS`dSR PQaW#W
`]] [F\$*' /) !SS[OX^]ZXY]dOB c\ %`L2 bZS^V]\S1)() 0- * , ' - *2 Tcf1)() 0- *
*./**%7 SZSUObW\ a OS QhYSR bj YWRZg WRWQbS bVS ZsdSZ]T`S^`SaS\ bObW\ Ob bVS
bW S]TWaQ WbW\ %

). % Fc[[O W a]T bVS RSZPS`ObW\ a]T bVS T]c` `]c\ RStCPZS RWQaaW\ a e WZ PS
^`SaS\ bSR Pg bVS QVOWa]T bVS `]c\ R bCPZSa Rc`WU bVS Q\ QZ RWU aSU\ S\ b Ob bVS
^Z\ Og [SSbWU]T bVS VWV\$ZsdSZRWZ] UeS]\ bVS OibS`]]\]T 9` WQ# + B Q] PS %
GVS F^SQWZES^`SaS\ bObWS]T bVS FSQ Sbo g\$: S\ S`OZ]\ < bS\ ObW\ OZ @ W ObW\ Q R
7 SdSZ ^ [S\ b e WZ OZ] PS WdWbSR bj a^SOY%GVS C SaWS\ b]T bVS : S\ S`OZ4 aaS [PZg
e WZQZ] aS bVS [SSbWU %

)/ % 9c`bVS` W T] [ObW\]\ bVS VWV\$ZsdSZRWZ] UeS W Q\ bOWSR W bVS \] bS Pg bVS
FSQ Sbo g\$: S\ S`OZ]\ bVS]`UQ WObW\]T bVS VWV\$ZsdSZRWZ] UeS]\ WbS\ ObW\ OZ
[W ObW\ Q R SdSZ ^ [S\ b!4 &/ &-) "%

)0% 6] \ TS`S\ Q E]] [+ !A] `bV? Qe \ 5c WRWU' e WZaS`dS Qh Q] dS`TZe `]] [T]^
bVS VWV\$ZsdSZRWZ] UeS# WQZ RWU T]^ bVS]^S\ WU Q R QZ] aWU^Z\ Og [SSbWUa Q R
bVS `]c\ R bCPZS RWQaaW\ a%

*' % 4 a WRWQbSR CP] dS !aSQ%<`#bVS US\ S`OZ RSPObS]T bVS aWbg\$SWWbV aSaaW\]T
bVS : S\ S`OZ4 aaS [PZg e WZ PS VSZR T] [GcSaRQ#) + FS^bS [PS# bj J SR\ SaRQ#
) B Q] PS `)' (*%GVS [SSbWUa]T bVS US\ S`OZ RSPObS e WZ PS VSZR T] [0 O% %b]
(^% %Q R T] [* ^% %b] 0 ^% %e Wb bVS Sf Q^bW\]T bVS [SSbWU]\ bVS []\ WU
]T Gvc`aRQ#) - FS^bS [PS# e WbW e WZ atOb Ob (' O% % OibS` bVS]^S\ WU]T bVS
VWV\$ZsdSZ [SSbWU]\ \c QSO RWO [Q S\ b#b] PS VSZR T] [0 O% %b] (' O% %W bVS
: S\ S`OZ4 aaS [PZg ; OZ%

(% GVS Qe`S\ b Zwb]T a^SOYS'a W QIOXCPZS W `]] [F\$' /) %4 \ g QVQ US]`
Sf QVQ US]T a^SOY WU aZ] ba Q]\ U @S [PS` FbOsa aV] cZR PS Q [[c\ WQbSR W
e`WbWU bj bVS : S\ S`OZ 4 aaS [PZg 4 TiOWa 5`Q Q# `]] [F\$*' /) !SS[OX
^]ZXY]dOB c\ %`L2

*, % FtOs[S\ ba [CRS W Q g] T bVS aW] T W Q W Z Q U c O U Sa] T bVS : S\ S' OZ4 aaS[PZg
O S W bS ^ S bSR W b] bVS] bVS] T W Q W Z Q U c O U Sa%4 \ g a^SOYS [Qg OZ] [OYS O
atOs[S\ b W O Z Q U c O U S] bVS bVQ bVS] T W Q W Z Q U c O U Sa% < ac QV Q O Sa# W

+(% GVS a^SQMZSdS\ b] T bVS C^ SaVRS\ b] T bVS : S\ S^ OZ4 aaS[PZg b] T] Z] e c^ bVS
STI]`ta [CRS b] QQWdS bVS @VZS\ \ W[7 SdSZ^ [S\ b :] OZa e VZ PS VSZR]\
, FS^bS[PS `)' (*#T][0 O% %b] (^% %Q R T][* ^% %b] - ^% %QQ`RWU b]
bVS T] Z] e WUaQVSRcZS1

0\$(' O% % B^S\ WU^Z\ Og [SSbWU!G^catSSaVW 6] c\ QVZ6 VQ PS "

(' O% % (^% % E] c\ R tCPZS (!G^catSSaVW 6] c\ QVZ6 VQ PS "

E] c\ R tCPZS) !8 Q \ \ [WQ R F] QVZ6] c\ QVZ6 VQ PS "

*\$- ^% % E] c\ R tCPZS * !G^catSSaVW 6] c\ QVZ6 VQ PS "

E] c\ R tCPZS + !8 Q \ \ [WQ R F] QVZ6] c\ QVZ6 VQ PS "

- \$- %' ^% % 6 Z aWU^Z\ Og [SSbWU!G^catSSaVW 6] c\ QVZ6 VQ PS "

+) % GVS] ^S\ WU ^Z\ Og [SSbWU] T bVS SdS\ b e VZ Q \ aWb] T atObS[S\ ta Pg bVS
C^ SaVRS\ b] T bVS : S\ S^ OZ4 aaS[PZ#bVS FSQ StOg\$: S\ S^ OZQ R O\ c[PS] T; SCRa] T
FtObS] ` :] dS\ \ [S\ b#Qa e SZZQa] bVS a^SOYS a WdVSR Pg bVS C^ SaVRS\ b%GVS Q] aWU
^Z\ Og [SSbWU e VZ Q \ aWb] T O^ SaS\ tObW\] T bVS ac[[O W a] T bVS `] c\ RStCPZS
RSZPS ObW\ a Q R bVS S\ R] `aS[S\ b] T bVS] c tQ [S R] Qc[S\ b%

+*% GVS `] c\ RStCPZS RWQaaW\ a e VZPS VSZR c\ RS^ bVS aQ S P] CR bVS[S#T] QaWU
] \ UO^a Q R e SOY\ SaaSa Q R bVS QQZS ObW\] T bVS W^ZS[S\ tObW\] T bVS
@VZS\ \ W[7 SdSZ^ [S\ b :] OZa# Qa e SZZ Qa Z] YWU T] `e OR b] bVS ^] abS)' (,
RSdSZ^ [S\ b CLS\ RO%4 ZAb] Ta^SOYS a W] ^S\ T] ` WaQ WbW\ #] \ OTWabSQ [S#TWabS

SdSg QWRn# FcatOWCPZ 8\S Ug Tj` 4ZZ# 8RcQbW\ 9Wat# bVS MS] ; c\ US
6 VOZS\ US Q R bVS 6 OZZb] 4 QbW\]\ FO\ WbW\ %

+. % 7c`WU bVS Tj`c[#; SCRa]T FbOS Q,R :]dS\ [S\ b# QWST Sf SQe bWS]TWs a
T][bVS PcaW\Saa aSQ]`#^VWQ bV]^Wba Q,R QWVZa] QWbg ZSCRS`a# Qa e SZZQa VSCRa
]T H\ WSR AObW\ a OUS\ QSa# Tc\ Ra Q,R ^]UQ [Sa Q,R]bVS` WbS\ ObW\ OZ
]`UQ WObW\ a#e VZVQdS Q]^^`tc\ Wg bj RWQ:aa bVS [SO a]TW^ZS[S\ bObW\ bVOb
e VZ [ObQ\ Q PObW\ a e WbW Q\ QStS [SQVO\ W[a Q,R `Sa]c`QSa%GVS FSQStOg\$
: S\ S`OZe VZ^`dWRS]^S\ WU`S[OYa Ob bVS Tj`c[# e VbW e VZ PS TjZ]e SR Pg
Q\ b WcbW\ a T][O\c[PS]T^O SZZW%GVS C SaWRS\ b]T bVS : S\ S`OZ4 aaS[PZg
Q R bVS 7 S^ctg FSQStOg\$: S\ S`OZe VZ^`dWRS Q\ QZRWU`S[OYa%

+ / %

, (% 4 QQ SRWObW\]T] TIVWZRSZUObW\ a Q R [S[PS`a]TbVS ^ObVa]T; SCRa]T
FtObS]` :]dS\ [S\ b# I WSSC SaRS\ ba Q R 6`]e\ C`WQSa]` C`WQSaSa e WZ PS
QQ`WR]cb Pg bVS C`]b] Q Z Q R ? WbW\ FS`dWS% @ WbW\ a& TIVWZSa OS`S_cWSR b]
acP[W bVSW OQQ SRWObW\ `S_cSata Pg caWU bVS \Se]\ ZWS agabS[#
n84 QQ SRWObW\ n# dW bVS e SPaWS Ob Vtb`al&SSQQ SRWObW\ %\ %Wb% GVS C`]b] Q Z
B TIVWZ VQa Q [[c\ WQSR b] OZZ[WbW\ a& TIVWZSa W ASe L]`Y Pg [SQa]T O\]bS
dS`POZS RCbSR () =cZg)' (* ^) dWRWURStObW\]TbVS]TIVWZSa\ QV]TbVS\ Se]\ ZWS
OQQ SRWObW\ agabS[#b] USbVS` e WbW m c WRSZWSa]\ S4 QQ SRWObW\ n Q R n9`S_cS\ bZg
4 aYSR DcSabW\ an%GVS W]` [ObW\ QQ OZa] PS T]c\ R]\ bVS C`]b] Q Z Q R ? WbW\
FS`dWS e SPaWS !e e e %\ %Wb%`]b] Q Z %9]` bVS acP[WbW\]T`S_cSata T]` U]c\ Ra
Q R I <C ^QaSa# [WbW\ a& TIVWZSa aV]cZR T]Z]e bVS ^] QSRc`S`SIS`SR b] W bVS
Uc WRSZWSa%

,)% ; SCRa]T FtObS]` :]dS\ [S\ b# I WSSC SaRS\ ba# 6`]e\ C`WQSa]` C`WQSaSa
Q R bVSW a^]caSa e WZ PS]TIS`SR I <C ^QaSa e WbW]cb ^V]b] U O`Va%7 S^cbg C`W S
@ WbW`a# 6 CPWSb [WbW`a Q R bVSW a^]caSa e WZ PS ^]dWRSR e WbW I <C ^QaSa
e WbW ^V]b] U O`Va%

, % GVS e]`Y WU V]c`a]TbVS OQQ SRWObW\ c\ W!bZS^V]\ S1) () 0 - * . (/ (" W bVS
C`]b] Q Z Q R ? WbW\ FS`dWS W bVS RQa ^`W` b] Q R Rc`WU bVS WbW`SdSZ[SSbWLa
Q R bVS US\ S`OZRSPObS e WZ PS ^]abSR]\ bVS C`]b] Q Z Q R ? WbW\ FS`dWS e SPaWS
Q R ObVS S\ b g]TbVS C`]b] Q Z B TIVWZ atObWU]\ GcSaRQ## FS`bS[PS`)' (* %

, +% 7 c`WU bVS WbW`SdSZ[SSbWLa Q R bVS US\ S`OZRSPObS]TbVS aWbg\$SWWbV
aSaW\]TbVS : S\ S`OZ4 aaS[PZg # T] [] * FS`bS[PS` b] + B Q] PS`)' (* # OQSaa b]
bVS : S\ S`OZ4 aaS[PZg ; OZZQ R`Sab WQSR OSQa e WZ`S_cWS O`SUcZO RSZUObSla ^Qa
^Za OaSQ\ RO g Q] Z c`SQ] RSR OQSaa QR%GVS OQSaa QRa OS b Q aIS`CPZ ab WbZg
Q]\ U [S[PS`a]TORSZUObW\ %9]` bVb ^c`^]aS# bVS C`]b] Q Z Q R ? WbW\ FS`dWS
e WZ`^] QSSR Qa T] Z]e a1

!O' 8dS`g CS` [Q S\ b @ WbW\ e WZ PS WacSR T]c` QRa]T]\ S Q] Z c` T]
OQSaa b] bVS : S\ S`OZ4 aaS[PZg ; OZZW bVS A]`bV ? Qe \ 5c WRWU Q R T]c` QRa]T O
RWIS S\ b Q] Z c` T]` OQSaa b] bVS A]`bV ? Qe \ 5c WRWU Z] PPg%GVSaS QRa e WZ PS
dOZR T]` bVS S\ bWS ^S`WR]TbVS WbW`SdSZ[SSbWLa Q R bVS US\ S`OZRSPObS]TbVS
aWbg\$SWWbV aSaW\]TbVS : S\ S`OZ4 aaS[PZg # T] [] * FS`bS[PS` b] + B Q] PS`
)' (* 2

!P" 8OQV WbS`U]dS\ [S\ bOZ]`UQ WObW\ e WZ PS WacSR te] Q] Z c`SQ] RSR
OQSaa QRa Q R SOQV a^SQWZSR CLS\ Qg e WZ PS WacSR]\ S Q] Z c`SQ] RSR OQSaa
QR T]` OQSaa b] bVS : S\ S`OZ4 aaS[PZg ; OZZ W bVS A]`bV ? Qe \ 5c WRWU W
CRRW\ # SOQV WbS`U]dS\ [S\ bOZ]`UQ WObW\ Q R a^SQWZSR CLS\ Qg e WZ`SQSWS
te] QRa]TORWIS S\ b Q] Z c` T]` OQSaa b] bVS A]`bV ? Qe \ 5c WRWU Z] PPg2

!Q' 4 OQSaa QRa# W`S_cWSR# e WZ PS WacSR b] `S`SaS\ bOWSa]T @S[PS`
FtObSa#]PaS`dS`a# WbS`U]dS\ [S\ bOZ]`UQ WObW\ a Q R a^SQWZSR CLS\ QSa

^ObWObWU W]bVS` Q] aSR&Sab WbSR VWV\$ZdSZ[SSbWLa T]` CQSa b] Q \ TS` S\ QS
`]] [a W bVS A]`bV? Qe \ 5 c WRWU Q R bVS 6] \ TS` S\ QS 5 c WRWU %
, , % 6] Z c` \$Q] RSR CQSa QORa T]` bVS VWV\$ZdSZ[SSbWLa Q R bVS US` S` OZRSPQbS
e VZPS` `SORg T]` Q] ZSQW\ Q bVS C`] b] Q] ZQ R ? W] \ FS` dWS abObWU] \ 9` WQg#
)' FS`bS [PS`)' (*#OHS` (' Oj %
, - % FSCh e VZPS` `SaS` dSR W O I <C O SO T]` a^] caSa] T bVS ; SCRa] T FbHS]`
:] dS` \ [S\ b# I W\$C Sa VRS\ ba# 6`] e \ C` WQSa]` C` WQSaSa ^ObWObWU W bVS
US` S` OZRSPQbS#` ^] dWSR bVOb bVS 6 VST] T C`] b] Q] ZW` \] bWSR W CRdQ QS] T bVSW
OHS\ RO QS% \ CRRW\ #RS^S\ RWU] \ QdOZPWg#OZW WSR\ c [PS`] TaSCh e VZPS
`SaS` dSR T]` UcSaba] T RSZSUObW\ a W O` SaS` dSR aSQW\ !c^ b] SWWb aSCh"] T bVS
: S\ S` OZ4 aaS [PZg ; OZRc` WU bVS CRR` Saa] T bVS VSCR] T RSZSUObW\ Q bVS ^Z\ Og
[SSbWU%4 CQSa b] bVSaS O SCh e VZ` S_c WS O a^ SQWZ Q c` bSag bWYSb RWb WcbSR Pg
bVS C`] b] Q] ZQ R ? W] \ FS` dWS%G] `SaS` dS aSCh W bVS I <C O SO T]` a^] caSa Q R W
bVS `SaS` dSR aSQW\ T]` UcSaba] T RSZSUObW\ a W bVS : S\ S` OZ4 aaS [PZg ; OZ# O
e `WS\ `S_c Sab a^ SQWg WU bVS \ Q Sa Q R bV\$Sa] T OZ OHS\ RSSa !WQc RWU# e VS` S
`SZdO b# bVS a^] caS] T bVS RW\ W Og a^ SOYWU' [cab PS RSZWS` SR b] bVS 6 VST] T
C`] b] Q] ZW`]] [FS`)' (]` TCF

- ' % @`a%5 Q F]]\ \$OSY e WZV] abOP`SOYIab`SQS^bW\]\ bVS aSQ\ R TQ]]`]TbVS
A]`bV?Qe \ 5c WUWUW bVS OSOCRXXS\ bbj 6]\ TS S\ QS E]] [8 W bVS []\` WUQR
ObSO`SQS^bW\ Ob bVS `SaRS\ QS W bVS OIbS\]]\]\ GcSaRQ#)+ FS^bS[PS`)' (*#Qh
e SZZQh OQzZc`CZSdS\ b]\ J SR\ SaRQ#), FS^bS[PS`)' (*#W V]\]c`]TbVS a^]caSa
]T; SCRa]TFbS]` :]dS\ [S\ bI WSSC SaRS\ ta Q R 6`]e \ C WQSa]` C WQSaSa
^ObWUWU W bVS aWbg\$

-- % GVS] ^S\ WU bW Sa] TbVS ^SRsab W S\ b Q QSa OS Qa T] Z] e a1
+*`R Fb SSb Q R 9 Wab4 dS\ cS1 - O% %b] Q] aS] TPcaWSaa
+- bV Fb SSb Q R 9 Wab4 dS\ cS1 . O% %b] Q] aS] TPcaWSaa
+. bV Fb SSb Q R 9 Wab4 dS\ cS1 . O% %b] Q] aS] TPcaWSaa

- . % CZQaS PS Qe OS bVb OZZ^OQYOUSa P`] cUmb]\ b] bVS ^`S[Wsa Pg OZZQbSU] `Wsa
] T^S`a] \ a# WQZRWURSZUCbSa Q R atOT#e WZPS acPXSQb] aSQe` Wg Wa^SQbW\ %

- / % C`W` O`Q US[S\ ta OS `S_c WSR T] ` ^`Saa Q R OTWbSa Rc`WU Oib`\$V]cbfg %oo
OQSa b] bVS ^`S[Wsa bV]cUV \] bWQbW\ b] bVS FSQe` Wg B^S`bW\ a 6 S\ bS
!bSZ^V] \ S1) () 0- * - - - - "%

- 0% 4 QSa b] bVS F] cbV 4 \ \ Sf Q R bVS ? W`Og 5 c WRWU ^`W` b] - O% %[Qg PS
UOWSR Pg caWU bVS +*`R Fb SSb S\ b Q QS Q R ^`] QSRWU b] bV] aS OSQa dW bVS
FSQStO Wb 5 c WRWU Z] PPg%

. ' % 7 c`WU bVS aWg\$SWbV aSaaW\ # bVS RSZUCSal ^SRsab W S\ b Q QS UCb#
Z] QCSR Cb +, bV Fb SSb Q R 9 Wab4 dS\ cS1 - O% %b] Q] aS] TPcaWSaa WZPS W Sa a R

FCtc`RQg Q R Fc\ RQg#(+ Q R (, FS^tS[PS`	0 O% %b] , ^% %
@]\ RQg#(- FS^tS[PS`	0 O% %b] - ^% %
Gc SaRQg#(. FS^tS[PS`	0 O% %b] - ^% %
J SR\ SaRQg#(/ FS^tS[PS`	0 O% %b] - ^% %
GVc`aRQg#(0 FS^tS[PS`	0 O% %b] - ^% %
9`WRQg#)' FS^tS[PS`	0 O% %b] - ^% %
FCtc`RQg#)(FS^tS[PS`	(' O% %b] - ^% %
Fc\ RQg#)) FS^tS[PS`	(' O% %b] - ^% %
@]\ RQg#)* FS^tS[PS`	/ O% %b] - ^% %
Gc SaRQg#+ FS^tS[PS`	/ O% %b] - ^% %
J SR\ SaRQg#), FS^tS[PS`	/ O% %b] - ^% %
GVc`aRQg#)- FS^tS[PS`	/ O% %b] - ^% %
9`WRQg#). FS^tS[PS`	/ O% %b] - ^% %
FCtc`RQg#)/ FS^tS[PS`	0 O% %b] (^% %
Fc\ RQg#)0 FS^tS[PS`	6 Z] aSR
@]\ RQg##' FS^tS[PS`	/ %' O% %b] - ^% %
Gc SaRQg#(B Q] PS`	0 O% %b] +% ' ^% %
J SR\ SaRQg#) B Q] PS`	0 O% %b] +% ' ^% %
GVc`aRQg##* B Q] PS`	0 O% %b] +% ' ^% %
9`WRQg#+ B Q] PS`	0 O% %b] +% ' ^% %

5 SUW\ WU]\ @]\ RQg#. B Q] PS`)' (*# OZZ^Qaa Q R WRS\ bWQcW\]^S`CW\ a e WZ
`Stc` \ b] bVS CQaa Q R <RS\ bWQcW\ H\ W#`]][H\$(' #HA<G4 E 5 c WRWU# Q R bVS
V]c`a]T]^S`CW\ e WZPS T][0 O% %b] +% ' ^% %

. +% @S[PS`a]T bVS [SRW !P] bV `SaWRS\ b Q] ``Sa^] \ RS\ ta e W W S_cW[S] b Q R
\]\ \$SaWRS\ b Q] ``Sa^] \ RS\ ta e W W]` e W W]cb S_cW[S] b' e V] e W W b] S] bS` bVS
: S] S` OZ4 aaS[PZg ; OZW bVS A] `bV ? Qe \ 5 c WRWU[cabcaS bVS +- bV Fb SSb [SRW
SS] W\ QSSW- bW]P` CSbW \ bW] QS []c]]aWU] VS]S`SS\ bZU] S]]S a]S` S\ Sa]V] SaR

: S\ S' CZ4 aaS[PZg 5 cWRWUe WZPS`S_c WSR bj caS bVS`Q ^ Z] QCSR]\ bVS SQabaWRS
] T bVS : S\ S' CZ4 aaS[PZg 5 cWRWU Q R bVS abOWQaSe WVV bVS \ SQY O SO bj bVS bVWR
TZ]`%GV] aS [SRW^S'a] \ SZ e V] e WV bj ^] QCSR bj bVS @SRW6S\ bS !6]\ TS S\ QS
E]] [(#A)`bV ? Qe \ 5 cWRWU' T] Z] e WU bVS aQ SS\ WU ^] Qsaa e WZ ^] QSSR T] [
bVS bS\ b O SO CQ] aa bVS ^ZChO Q R caS bVS [StCZabOWQaS R] e \ bj bVS U] c\ R TZ]`#
^QaWU bV] cUV bVS a] cbV aWRS R]]`a bj bVS `SO S\ b O QS] T 6]\ TS S\ QS E]] [(%
I WRS] Q Se a CQQ] [^O g WU`SaWRS\ b O R \] \ \$ SaWRS\ b Q ``Sa^] \ RS\ ba# Qa e SZZ Qa CZZ
QbSU]`Wsa] T bS[^]`Og Q] ``Sa^] \ RS\ ba# e WZ caS] \ Zg bVS +- bV F6 SSb S\ b O QS#

S\ bQ QS OS `S_c WSR bj PS W ^] aaSaaW\] T bVS `S_c WWS H\ WSR AOb\ a\$WacSR
U] c\ Ra ^Qaa W] `RS` bj UOW QQSaa bj bVS ^`S[WSa%9c`bVS [] `S# W W W ^] `bQ bbj
\] bS bVOb OdCZR U] c\ Ra ^Qaa Q R Q Qe bV] `WSR H\ WSR AOb\ a RSQZ! WacSR Pg bVS
: OCLS 4R[W W b Ob\ " e WZ PS `S_c WSR Ob bVS +- bV Fb SSb Q R FSQ\ R 4 dS\ cS
dSVWZ QV SQY^] Wb ^ W` bj bVS U Q b WU] Tac QV QQSaa%

/' % 9` [@] \ RQg bj 9` WQg# dSVWZSa] bVS` bVQ bV] aS PSZ \ UWU bj bVS VSCRa] T
RSZSUOb\] T bVS CS [Q S\ b @ Wa\ a] ` BPaS` dS` @ Wa\ a bj bVS H\ WSR AOb\ a
e WZPS ^S [WSR QQSaa bj S\ bS` bVS UOCLS bV] cUV bVS +/ bV Fb SSb S\ bQ QS% H^] \
bVS Q\ QZ aW\] T bVSW] T W W Z Q W W g# bVSg [Qg RS^ O bbV] cUV bVS +*` R Fb SSb Sf W%
GVS +/ bV Fb SSb Q R +*` R Fb SSb S\ bQ QSa e WZPS] ^S` Ob\ CZ] \ O) +\$V] c` P Q W%
G O T W Z Q Sa e W W bVS bVWR PQaS [S\ b aS` d W S R W S Q R `] Cre Qga W bVS UOCLS
[cabPS YS` bT SS] T a Ob\ O g dSVWZSa Ob CZ b W Sa% d SVWZSa Z Tb W bVOb OSOe WZPS
acP X Q b] b] e W W % \ b `

O S

/(% 4 ZZ dSVWZSa S\ bS` WU; SCR_cOb` a ^`S [W Sa \ bVOb W W S\ bS` W W Z Q Qsb [\

/- % <b W`SQZZSR bVcbVS FSQStO g\$: S\ S`O#W OZShS` RObR (0 4 ^`VZ)' (*#WdWbSR
; SCRa] T FtCbS]` :]dS\[S\ b bj Q\ aWRS` aW\ WU Q R `CbWg WU]` CQQRWU bj
[cZVbS` OZb SCbSa RS^] aWbR e Wb VW R c` WU bVS US\ S` OZRSPChS] T bVS aWbg\$SWbV
aSaaW\] T bVS : S\ S` OZ4 aaS\ PZg%

/. % GVS b SOcg SdS\ be WZPS VSZR T] [) + bj) - FS^bS[PS` Q R T] [*' FS^bS[PS`
bj (B Qj PS`)' (* W bVS b SOcg \$aW\ WU O SOW bVS A] `bV ? Ce \ 5 c WRWU !RSaW\ CbSR
O SO] \ bVS TWab Tj] `"%4 ^^] Wb\ S\ ta Tj ` aW\ Crc`S#` CbWQCbW\] ` CQQRaaW\ aV] cZR
PS O`Q USR e SZZ W CRdQ QS e Wb bVS G SOcg FSQbW\ !bSZ^V] S1) () 0- * , ' + . "%
GV] aS Qj c\ b Wsa WbS\ RWU bj `CbWg Q R &` CQQRs bj O Qj \ dS\ bW\] ` b SOcg [cab
acP[WQ ^Wsa] T bVS W Wab c [S\ ta bj bVS G SOcg FSQbW\ Tj] ` SdWe Pg - FS^bS[PS`
)' (*%GV] aS Qj c\ b Wsa WbS\ RWU bj aW\ OQj \ dS\ bW\] ` b SOcg [cab acP[WQ ^Wsa] T
bVS W TeZZ^] e S a bj bVS G SOcg FSQbW\ Tj] ` SdWe Pg - FS^bS[PS`)' (*%baV] cZR PS
\] bSR bVcb; SCRa] T FtCbS]` :]dS\[S\ b Q R @ W WbS` a Tj ` 9]` SW\ 4 TIOwA R] \] b
`S_c WS TeZZ^] e S a bj aW\ %6] ^Wsa] T Wab c [S\ ta Q R TeZZ^] e S a [Qg PS Tc SR bj
bVS G SOcg FSQbW\ Cb) () 0- * *- 0*%

// % < Tj] [CbW\ `SZbWU bj bVS b SOcg SdS\ b# WQZ RWU bVS ZShS`] T WdWbW\ T] []
bVS FSQStO g\$: S\ S` O#bVS Q \ cOZ^cPZCbW\] \ b SCbSa S\ bWbSR
O ZAb] T OZZ [cZVbS` OZb SCbSa RS^] aWbR e Wb
bVS FSQStO g\$: S\ S` OZ Q R ^`] QSRc` OZ Wj] [CbW\ QQ PS] PtoWbSR T] [bVS H\ WbSR
A CbW\ a G SOcg 6] ZSQbW\ e SPaWS !Vb^ l&b SCbSa % \ % `U"%

/0 % < ORRW\ bj bVS ; SCR] T FtCbS]` :]dS\[S\ b] ` @ W WbS` Tj ` 9]` SW\ 4 TIOwA #
be] WRWbRc OZ ^S` RSZSUObW\ e WZPS ^S [WbSR Cb bVS SdS\ b%baV] cZR PS \] bSR bVcb
W W bVS `Sa^] \ a W WbS] T bVS RSZSUObW\ bj SaQ `b bVS `S^ SaS\ bCbWS e V] e WZPS
c\ RS` bOYWU bVS `SZsdQ b b SOcg CQbW\ bj bVS dS\ cS TWS [WcbSa ^` W` bj bVS
aQVSRc ZR O^] Wb\ S\ b%4 ^`] bj Qj Z] T WbS` e WZU SSb Q R SaQ `b RW\ WO Wsa ! ; SCR] T
FtCbS]` :]dS\[S\ b & WbS` Sa WbS\ b6 `] e \ C` WQS] ` C` WQSa " T] [bVS Sa QZCb] ` a
W bVS [OW VOZZ%

0' % < baV] cZR OZ] PS \] bSR bVcb # W] `RS` bj UOW CQQRaa bj bVS ^` S [Wsa R c` WU bVS
)' (* b SOcg SdS\ b# \ CbW\ OZ [SRW [cab VQIS ^` SdWcaZg] PtoWbSR ^`] ^S` [SRW
CQQRWbW\ T] [bVS @SRW4 QQ SRWbW\ Q R ? WbW\ \ H\ W%

0(% 8 QV RSZSUObW\ aV] cZR RSaW\ CbS Q WRWbRc OZ Qa O Qj \ bCb ^S` a] \ Tj ` bVS
^c^] aSa] T bW SdS\ b%

0)% @SRW `S^ SaS\ bCbWSa e Wb O dOZR H\ WbSR A CbW\ a U] c\ Ra ^Qaa e WZ PS
OZ] e SR bj Qj dS` bVS US\ S` OZ RSPChS Q R] bVS` WbVSZsdSZ [SsbWUa e Wb] cb
ORRW\ OZCQ SRWbW\ %

0*% 4 ZZ] bVS` a e V] Rj \] b VQIS O dOZR ^Qaa
% GVSg [cab OZ] TWZ] cb Q] \ ZWS [SRW
`SUWb CbW\ Tj] [!QIOWPZS Cb e e e % \ % `US & SRW CQ SRWbW\ &] ["% Ge]
^WQSa] T ^V] bj WbS\ bWbW\ !ac QV Qa O^ Qaa^] `# OR` WbS` la ZW\ QS] ` FtCbS <7 " OS
OZ] `S_c WSR e VS\ ^QaaSa OS ^WbSR c^%

0+% 4ZZ[S[PS a]T bVS [SRW CQQ[

(' *%GVS [SRW QS\ bS T]` OZZ[SRW e WZPS W 6]\ TS\ S\ QS E]] [(# W bVS A)`bV
? Oe \ 5 c WRWU%

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((%)FtOb[S\ba W bVS]`WVQZ Z\UcOUS W e WQV bVSg e S'S RSZWS SR e VZ PS
QdOCPZ]\ bVS CO'S F[Ob^]`bZ Ob ^O'S af Ob%[\ SSbWUa%`U%F^SQVZ`S_cSaba
T]`O`SQ`RWU]T bVS Wbs`^SbW\ W]\ S]T bVS aW]TWQVZ Z\ UcOUSa aV]cZR PS
[CRS W CRdQ Q2 bVS QdOCPVg]T acQV`SQ`RWUa acPXSQ b] bVS ZW WOb\ a]T
`SQ`RWU`TOQVWSa%

((*%? W WSR`CRW`atcRW TOQVWSa e VZ PS ^`]dVSR b] RSZSUObSa Q,R CQQSRWSR
Xc`\ZVba# e VS\ QdOCPZ# Rc`WU bVS US\ S`OZ RSPCH%GVS`S e VZ PS QVOUSa b]
Q dS`bVS ORRW\ CZQ\`b CQ]` Q`aba T]` Oib`\$V]c`a caS%0]``CRW`atcRW QdOCPVg
Q,R Q`ab SabW ObSa T]` Oib`\$V]c` caS#Q\ bCb bVS 5`]CRQab Q,R 6]`TS`S\ QS Fc^^]`b
FSQW\ !SS\ OZ `S_cSab\$T]`\$aS`dW\$3 c\ %`U2 bSZ^V]\ S1)() 0-* 0+/, " Q,R Q`^g
H\ WSR AOb\ a ECRW`!P] PP3 c\ %`U#Ye WbY]e aYW`c\ %`U`%

((+%GVS H\ WSR AOb\ a e SPaVS !Vb^l& e e %\ %`U&O' e VZ ^`]dVSR# bV]cUV O
RSRWQSR ^]`bZ e SP ^OUS# Q dS`OUS]T bVS : S\ S`OZ 4 aaS[PZg [SSbWUa#
Q\ TS`S\ QSa# ^`Saa P`WTWUa Q,R SdS\ba W bVS aW]TWQVZ Z\ UcOUSa# WQZ`RWU
PQQYU]c\ R W]T]`[Ob\ #^`Saa`SZQSa#\ Se a ab]`Wa# R] Qc[S\ ba#^V] b] U`O`Va Q,R

((/%F][S dVcCZ[SRWQ dS CUS [WvPS ^]dVSR Pg aSZQSR [SRW^]]Z]e WU
bj Z UWVQ a Q R a^CQS Q \ aVRS CbW \ a%GVS ^]]Z OS `SaS`dSR Sf QZ aVRSZg T] ` H\ VSR
ACbW \ a GSZdWV \ # H\ VSR ACbW \ a ^V] bj U O^VS`a# WbS \ CbW \ CZ e WS aS`dW Sa Q R
^V] bj CUS \ QSa% < bVS QaS]T ^`Wb [SRW# bVS H\ VSR ACbW \ a 6] ``Sa^] \ RS \ ta
4 aa] QbW \ [Qg PS QYSR bj ^] dVRS] \ S] ` aSdS`CZ` S^`SaS \ bCbwSa%

((0%GVS]TIVWZ [SRW CQQ] [^Q gWU O; SCR]T FbCS] ` :]dS \ [S \ b] ` VSCR]T
RSZSUObW \ # WQZ RWU bVS]TIVWZ ^V] bj U O^VS`#e VZ \] b PS ^S [VSR bj ^O bWVCS
W bVS ^]]Z @SRW CQQ] [^Q gWU ; SCRa]T FbCS] ` :]dS \ [S \ b e VZ PS CPZS bj
Q dS` bVS CQWV Sa]T bVSWRSZSUObW \ W bVS SdS \ b W] ^S \ bj bVS ^`Saa%

() ` %B TIVWZ ^V] bj U O^VS` a Q R bSZdWV \ Q Se a e VZ VQdS Q] ^ ^] ` bc \ Wg bj Q dS
bVS atCS [S \ b] T bVSW ; SCR]T FbCS] ` :]dS \ [S \ b] ` VSCR]T RSZSUObW \] \ O
`] bWU P Q W T] [bVS ^`Saa P]] bVa ac ``] c \ RWU bVS : S \ S`CZ4 aaS [PZg ; OZZ%B e WU

() - %GVS H\ WSR AOW\ a @SRWQZ FS`dWS e WZ]^S`Os O e OZ\$W QZWQ T][
(*' O% %b] , ^% %e SSYRCga T] ` bVS Rc`OW\] T bVS : S\ S` OZ4 aaS[PZ%GVS QZWQW
Z] QbSR W bVS [OW FSQStOWb 5 cWRWU# TMBV TZ] ` !bSZ^V\ S1) () 0- * . ' / ' "%<
ORRW\ # O aCbZZbS QZWQ e WZ PS] ^S\ T][/ %' O% %b] . ^% %e SSYRCga W bVS
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: S\ S` OZ4 aaS[PZg 4 TIOWá

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6]\ TS` S\ QS FS dWsa

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8 \$[OX S[SSta[3 c\ %`U

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5 VChS` CZ[SSbWUa Q] `RWObW\

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FtObS[S\ bacP[WáW\

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8 [[OCWQVS
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7 SZSUObW\ CQQ SRWObW\ O R CQCSaa

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9] ` S4 QQ SRWObW\ bSQ\ WQZ Wac Sa l

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?WcbS\ Q b @OYRO@Q6]`[QY
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; cO=W U!C Saa FS`dWS"
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7 QdWJ]] RW !5`] CRQabQ R H \ WSR
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9QQWNa @Q CUS[S\ bFS`dWS

4 \ R`Se AgS
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6 O`WZ[Qbs` ^ZQ

CSbS` F[WV
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