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"

/25<4-53*8)993:;!91/* ./=!*%, >!(&(* (, 1.!4/* (15, !E5=()) (, 1!?)5(15(.!Y, /J, !%. !5. /1/- (.G!+. /1/- (.! /=!%, !%1/* 12%?(!12(!.%* (!, A* P())!/=!) /1/, .!%, E!(&(41)/, .0!PA1!E5=()) (, !!, A* P())!/=!, (A1)/, .G!
31%P&(15. /1/- (.!/=!%, !%1/* !E/!, /!E(4%>1/!/=!) * !%, /12()!(&(* (, 1G!; (4%A. (!/=!12(!E5=()) (, 4(15, !*%. !!
%)5.5, D!)=/* !E5=()) (, !!, A* P())!/=!, (A1)/, .0!. 1%P&(15. /1/- (.!/=!%!D5? (, !(&(* (, 1!P(2%?(!L^=)%415/, %1(_N!
5, !. &D21&>!E5=()) (, !!J%>. !EA)5, D!) (%415/, .!. A42!%. !L5N!(?%-/) %15/, !/=!J%1()0!L55N!4%)P/, !E5/]5E (!=5] %15/, !
EA)5, D!-2/1/ .>, 12(.5.0!L55N!4)>. 1%&&5 %15/, !/=!%!* %D* %0!%, E!L5?N!1)% , .=()!/=!%!E/, A1K. !5. /1/-54!. 5D, %1A) (!
1/!>/A)!5, D(), %5&. !%, E!2%5)G!' 25. !4/A). (!%EE) (. . !12(!-)5, 45-&(.!D/?() , 5, D!12(!=)%415/, %15/, !/=!. 1%P&(!
5. /1/- (.!%, E!/=4A. (. !/, !2/J!12(!. 1%P&(!5. /1/- (.!/=!/]>D(, 0!2>E)/D(, 0!4%)P/, 0!, 51)/D(, !%, E!. A&-2A)!
%&&/J!A. !1/!1)%4(15, 1())%415/, .!J5125, !12(!%1* / . -2() (@2>E)/. -2() (@P5/ . -2() (@512/ . -2() (!0%)12!3>. 1(* G!!

!
U(%) , 5, D!ZA14/* (.!

!
H-/, !. A44(. . =A&4/* -&(15/, !/=!125. !4/A). (!. 1AE(, 1. !J5&&P(!%P&(!1/S!

- !
"G H. (!12(!/]>D(, @%, E!2>E)/D(, &. /1/- (!4/* -/. 515/, !/=!J%1()!1/!E(1()) * 5, (!5!. !./A)4(!%, E!12(!
2>E)/&/D54%&!) /4(. . !12%!12%?(!. 2%- (E!12(!J%1()K. !5. /1/-54!4/* -/. 515/, 0!%. !(?%&A%1(E!12)/AD2!
%. .5D, * (, 1.0!1(. 1. !%, E!J)511(, !(!] %* 5, %15/, !
6G +E(, 15=>!12(!./A)4(. !L* %, 1&(0!4)A. 1N!12%!12%?(!4/, 1)5PA1(E!1/! * %D* %!D(, ()%15/, 0!%, E!) (4/D, 5` (!12(!
, %1A) (!/=!) /4Y@J%1()15, 1())%415/, !12%!1* %>!2%?(!%= (41(E!%, !5D, (/A. !)/4Y!%=1()!51. !4)>. 1%&&5 %15/, 0!%. !
(?%&A%1(E!12)/AD2!%. .5D, * (, 1.0!1(. 1. 0!%, E!/) %&!, E!J)511(, !(!] %* 5, %15/, .!
7G B%&4A&%1(!12(!. 1%P&(!5. /1/- (!=)%415/, %15/, !=%41/)!P(1J((, !1J/!-2%. (. !L(GD60! * 5, ()%&!, E!J%1()N0!A. (!
12(. !E!%1!1/!(. 1%P&. 2!J 2(12())!12(!.>. 1(* !5. !5, !(I A5&P)5A * 0!%, E!/=/)!(I A5&P)5A * !.>. 1(* .0!
E(1()) * 5, (!12(!1(* - ())%1A) (!!1J 2542!(I A5&P)%15/, !/44A)) (E0!%. !(?%&A%1(E!12)/AD2!%. .5D, * (, 1.0!%!
J)511(, !1(. 10!5, 1())?5(J!%, E!J)511(, !(!] %* 5, %15/, !
<G H. (!12(!/]>D(, @%, E!2>E)/D(, &. /1/- (!4/* -/. 515/, !/=!4&&>! * 5, ()%&. !1/!E(1()) * 5, (!4/, E515/, .!/=!
J (%12()5, D!%, E!2>E)/12() * %&!%&1() %15/, 0!%, E!5, 1()-) (!112(. (!) (. A&1. !J5125, !12(!&%)D(!=)% * (J/)Y!/=!
E5%D(, (.5.0!/) (!* 5, ()%&5 %15/, !%, E! !:!)!4&&* %1(!42%, D(!/?())!0%)12!25. 1/)>0!%. !(?%&A%1(E!12)/AD2!
%. .5D, * (, 1.0!%!J)511(, !1(. 10!5, 1())?5(J!%, E!J)511(, !(!] %* 5, %15/, !
aG +E(, 15=>!-2/1/ .>, 12(154!-%12J%>. !5, !?(D(1%15/, !A. 5, D!. 1%P&(!4%)P/, &. /1/- (!4/* -/. 515/, .0!
) (4/D, 5` (!&%, E!A. (!42%, D(. !P%. (E/!, !. 1%P&(!4%)P/, &. /1/- (!4/* -/. 515/, .!/=!)D%, 54! * %11()0!%, E!
E(1()) * 5, (!12(!E5(1!%, E!1)/-254!&(?(&/=!%, 5* %&. !P%. (E/!, !12(!. 1%P&(!4%)P/, @%, E!, 51)/D(, &. /1/- (!
4/* -/. 515/, .!/=!12(5)!15. . A(. 0!%. !(?%&A%1(E!12)/AD2!%J)511(, !1(. 10!5, 1())?5(J!%, E!J)511(, !
(] %* 5, %15/, !
bG H. (!12(!. 1%P&(!4%)P/,

' 25.!/A1&, (!5. !%DA5E (!/, &>G!8?31*2\$G>0?OA2\$85=2452!5. !%E>, %* 54!1//&!%- -&5(E!1/!) (. (%)42!%, E!. 42/8%). 25-!
5, !* %, >!E5=() (, 1!=5(&E.G!B/A). (!4/, 1(, 1!* %>!42%, D(!E(- (, E5, D!/ , !4&%. . !=(EP%4Y!%, E!4A)) (, 1!1/-54. G!+=!
>/A!2%?(!5, 1() (. !!5, !%!. APR(41!, /!14/?) (E!2() (0!-&(% . (!4/, 1%41!\$) (EG!

\$
/0 3+%\$4@?(%)4+!
! +* -/)1%, 4(!1/!(%)12!%, E!(, ?5)/, * (, 1%&. 45(, 4(. 0!5. /1/- (. !/=!5, 1() (. !0!. / * (!D(, ()%&-)5, 45-&(. 0!12(!
%1/ * 0!42%)1!/=!12(!, A4&E(. 0!%1/ * 54! * % . !A, 51. 0!%1/ * 54! J (5D210!P5, E5, D!(, ()D>0!, A4&(%)!. 1%P5&51>0!
%PA, E%, 4(!/=!12(!(&* (, 1. !5, !12(!. /8%)!. >. 1(* 0!P)5(=!25. 1/)>!/=!. 1%P&(!5. /1/- (!D(/42(* 5. 1)>0!
E(-5, 515/, . !LH0! / 0! " 8 & , / 0! JNO!. 1%, E%)E. 0!5, 1)/EA415/, !1/!%, %&>154%&! * (12/E. !%, E!5, . 1)A * (, 1. !
L(]1)%415/, !1(42, 51 A(. 0! * % . !. - (41)/ * (1)>NO! ?5)1A%&!&%P/) %1/)>!1/A)G!!

!
A0 '#12*!), 4%45* , !)+!%&*!#%7 4, 5&*\$*!#+@!&8@\$4, 5&*\$*!
0! A5&P)5A * !)=)%415/, %15/, !/=!5. /1/- (. !Y5, (154!-)/4(. . (. 0!Z!%, E!d!5. /1/- (. !5, !J%1()!%, E!J%1()!
?%-/A)0!e%>&(5D2!E5. 15&&%15/, 0!W&/P%&! \ (1(/)54!X%1() !!U5, (0!Y5, (154!5. /1/- (!=)%415/, %15/, !%, E!6@
(]4(. 0!(?%-/) %15/, !&5, (0!) (D5/, %&! (= (41. !L&%151AE (0!%&151AE (0!4/, 15, (, 1%&51>0!1(* - ()%1A) (0!
-) (45-51%15/, !% * /A, 1NO! fA2, 0!5, @4&/AE!-)/4(. . (!%, E!Z!%, E!d!5. /1/- (. !/=!-) (45-51%15/, 0!. 2%&&/J!
D)/A, E!J%1()0!%1 * / . -2()54!/]>D(, !%, E!4%)P/, !E5/]5E (0!RA?(, 5&(!J%1()0!D(/12() * %&!J%1()0!)/4Y@
J%1()!%15/0!/4(%, 54!-/) (!J%1()0! =/) * %15/, !J%1()0!P)5, (. !L3X!

G0 '#12*(#\$14+!), 4%45*, !)+!%&*!(#\$14+!(8(2*!
B%)P/, !4>4&(L&/, D@?().A.!.2/)1@() * N0!4%)P/, !)(. ()?/5).!LH!%, E!=&A](.N0!&/, D@() * !4%)P/, !4>4&(0!
4%)P/, %1(.0!(I A585P)5A* !B@. /1/ - (!=)%415/, %15/, 0!?51%&! (= (41.0!4/%&0! - (1)/&(A * 0!, %1A)%&!D%. 0!P5/D(, 54!
* (12%, (0!1)%45, D!2>E)/4%)P/, !&(%Y.0!.2/)1@() * !4%)P/, !4>4&(L%1* /. -2()54!BZ 0!%1* /. -2()(@

#!=!.1AE(, 1.!, ((E!%. .5.1%, 4(!J512!12(!4/A). (!ZXU!;)5D21. -%4(!.51(0!12(>!4%, !. (Y!.A--/)1!/ , !12(!ZXU!
;)5D21. -%4(!d(&-!-%D(G!9&1(), %15?(&>0!12(>!4%, !4/, 1%41!12(!X(.1C), !' (42, /&/D>!3C)?54(.!d(&-E(.YGI!
' 2(>!4%, !P(!4/, 1%41(E!P>!-2/, (!%1!a" ! @bb"@7m88!/)!(]1G!m7m88G!
!
J*(&+)(#2!O*>?)\$* 7 * +%, !'#())*&(+, -". #/+ "O&/\$+\$#/#(1)&(. + "\$-\$2"3+
#!B/* -A1C)!%, E!.1%P&(5, 1C), (1!4/, , (415/, !

!
' 2(!-/854>!%&./!E/(.!, /1!%-&>!1/!.1AE(, 1.!(]-()5(, 45, D!&/, D()@1() * 15* -%41.!/ , !12(5)!%4%E (* 54!
)(-./, .5P5&515(.G!' 2(. (!.1AE(, 1.!.2/A&E!4/, .A&!944(. .5P&!0EA4%15/, G!
!
\$/)!-)/4(EA)(.!/ , !2/J!1/!.AP* 5!94%E (* 54!B/, .5E()15/, !)(IA(.1.0!-&(%. (!.(!12(!5, =/) * %15/, !-/.1(E!
/, !12(!Z=54(!/=!12(!e(D5.1)%K.!J (P-%D(S!
!
211-.S::)(D5.1)%GAJ/G4%:%4%E (* 54.:%4%E (* 54p4/, .5E()15/, .:!!
!
9&&!) (IA(.1.!=/)!94%E (* 54!B/, .5E()15/, !* A.1!P(!* %E(!J5125, !<m!2/A).!%=1()!12(!%.. (. * (, !1E%1(!/)!
.AP* 5. .5/, !E(%E&5, (G!!
!
9&&!94%E (* 54!B/, .5E()15/, !)(IA(.1.!* A.1!5, 4&AE(!.A--/)15, D!E/4A* (, 1%15/, C!2/J (?()0!)(4/D, 5`5, D!
12%1!="/) * %&!E/4A* (, 1%15/, !* %>!, /1!P(!%?%5&P&(15, !./ * (!]1(, A%15, D!45)4A* .1%, 4(.0!12(!-/854>!%&&/J.!
.1AE(, 1.1!/* %Y(!/, (!94%E (* 54!B/, .5E()15/, !)(IA(.1!

.1AE(, 1.!.AP*51!12(5)!%..(.*(, 1!P(>/, E!6<12/A).!-%.112(!E(%E&5, (0!%&1(!-(, %&1>!/="8n!-(!)E%>!/)/
=>)%415/, !/!=!E%>!J5&&P(!%-&5(E!9..5D, *(, 1.!)4(5?(E!* /)(!12%, !"68!2/A).!%=1!)12(!E(%E&5, (!J5&&, /!P
P(!%44(-1(E!94%E(*54!B/, .5E())%15/, !)(IA(.1.!*%>!P(D))%, 1(E!/, &>!/)(]1(, A%15, D!45)4A* .1%, 4(.!12%!
1%)1(E!P(=/)(!12(!E(%E&5, (!%, E!&5.1(E!&/, D!)!12%, !12(!g/@!%1(@M(, %&1>!M)5/E!L6<12/A).NG!!

!
'2()(!%)(!, /!0*%Y(@A-K!/-15/, .!=/)!*5..(E!9..5D, *(, 1.G!, !4%. (!/=(]1(, A%15, D!45)4A* .1%, 4(.0!
.1AE(, 1.!.2/A&E!4/, 1%41!12(15, .1)A41/)!%1!&/, D.1%VAJ/G4%G!!
!

A6!B<<0-0*2%\$!"-%-1912-(!

!
O*2)B)4?, !T((4774@#%)4+!
X2(, !4/, =&41.!J512!%)(&D5/A.!2/&5E%>!12%1!)(IA5)(.!, !%P.(, 4(!=)/ *!12(!H, 5?().51>!/)/-)/25P51.!
4()1%5, !%415?515(.0!.1AE(, 1.!.2/A&E!)(IA(.1!%, !%44/* */E%15/, !=/)!12(5)!%P.(, 4(!5, !J)515, D!1/!12(!4/A).(!
5, .1)A41/)!%, E:/)!12(!94%E(*54!9E?5.5, D!/=54(!/=12(5)!\$%4A&1>!/!=e(D5.1)%15/, G!'25.!, /154(!.2/A&E!P(!
*%E(!.!(%)&>!%!.!-/..5P&(PA!!, /1!&1!)!12%, !1J/!J((Y.!-)/5/)!1/!12(!J)515, D!/)!12(!] *5, %15/, !L/)!/, (!
J((Y!-)/5/)!1/!12(!J)515, D!/!=12(!1(.1NG!!

M&(%.(!75.51!12(!F5?().51>!B%&(, E%)!-/..1(E!/, !/A)!A, 5?().51>K.!OF+F!J(P.51(!=)/!12(!)(4/D, 5'(E!(&D5/A.!
2/&5E%>.S!

211-.S::JJJG(E5GAJ/G4%G!!

!
T((4774@#%)4+!=42)()* ,!
31AE(, 1.!.J512!E5.%P5&515(.!%)(!(, 4/A)%D(E!1/!4/, 1%41!944(.5P&(IOEA4%15/, 0!J2542!-)/?5E(.!
)4/* *(, E%15/, .!=/)!%44/* */E%15/, !P%.(E!/, !*(E54%&E/4A*(, 1%15/, !/)!-.>42/&/D54%&!%, E!
4/D, 515?(!1(.15, D6!!'2(!-/&54>!/!, !94%E(*54!944/* */E%15/, !=/)!31AE(, 1.!.J512!F5.%P5&515(.!4%, !P(!=/A, E!
%1S!

211-.S::JJJGAJ/G4%:A, 5?.(4:-E=:%4%E(*54p-/&545(.:%--(%&.:94%E(*54!
944/* */E%15/, pE5.%P5&515(.G-E=G!!

!
T(#@*7)(!=42)()* ,!
'2(!J(P.51(!=)/!e(D5.1)%!3()?)54(.!5.!.211-.S::JJJG(D5.1)%GAJ/G4%:G!!
!

!, !%44/)E%, 4(!J512!-/&54>0!

211-.S::JJJGAJ/G4%:A, 5?.(4:-E=:-/&545(.p-)/4(EA)(.:(415/, ":%*%--""7G-E=0!

12(!4(, 1)%&&>!%E*5, 5.1)(E!(@*%5&!%44/A, 1!-)/?5E(E!1/!.1AE(, 1.!.J5&&P(!4/, .5E())(E!12(15, E5?5EA%&K.!
/=545%&!A, 5?().51>!(@*%5&!%EE)(.G!!+15.!12(!)(.-/, .5P5&51>!/!=12(!%44/A, 1!2/&E())1/!(.A)(!12%1!(@*%5&!
)4(5?(E!)/ *!12(!H, 5?().51>!%1!12(5)!/=545%&!A, 5?().51>!%EE)(.!.5.!%11(, E(E!1/!5, !%15*(&>!*%, ,)G!
!

345(, 15=54!4%&4A&1/).!%)(!%&&/J(E!=/)!P/12!12(!\5E@1()*!'(.1!%, E!12(!\$5, %&O]%*5, %15/, G!
!

'(&42#, %)(!4<<*+(*, !%)(!1%Y(, !.)5/A.&>!%, E!.1AE(, 1.!)(!E5)(41(E!1/!)(%E!12(!%-)/-)/5%1(!-/&54>0!
.- (45=54%&&>0!12(!E(-5, 515/, !/!=J2%1!4/, .151A1(.!%1342/&%.154!Z=(, 4(0!%1!12(!=/&&/J5, D!X(P!51(S!
!

211-.S::JJJGAJ/G4%:A, 5?.(4:-E=:%4%E(*54p-/&545(.:%--(%&.:42/&%.154pE5.45-&5, (pA, E(D)%EG-E=G!!

!!

