D a P a PHYSICS Ma

!" Ha a a c ??? PREFERRANMERGERFERRASSE?

?+*'6(7+2(#/.#@&A)-,)#: /6+#, /96)+)#)&'6+#4-(&#(&+#92-;+6)-(AB)#C'(96'1#D,-+2,+#:/6+#(&+#)'7+#3+)-6+3#/9(,/7+)E#2'7+1A#(&'(#'(#(&+#,/7*1+(-/2#/.#'#:/6+#,/96)+#)(93+2()#4-11#&';+F#)')

- '" +8*'23+3#(&+-6#923+6)('23-25#/.#(&+#*6-2,-*1+)E#G/3A#/.#02/41+35+E#'23#2;+)(-5'(-;+#)(6'(+5-+)#(&'(#,/7*6-)+#*&A)-,)#'23#()#(+,&2/1/5-,'1#'**1-,'(-/2)H#
- G" 3+; +1/*+3#'#), -+2(-.-, #-(+6', A#(&'(#4-11#*6/7/(+#, 96-/)-(AE#6+)*+, (#./6#(&+#), -+2(-.-, #7+(&/3E#'23# 5+2+6'1#'4'6+2+))#/.#(&+#1-7-('(-/2)#/.#), -+2(-.-, #, /2,19)-/2)\text{##}
- ," 6+, /52-I+3#(&+#6/1+#/.#), -+2(-.-, #3-), /; +6AE#*')(E#*6+)+2(E#'23#.9(96+E#2#2(+66+1'(+3#, /2, +62)#)9, &#')#&97'2#&+'1(&E#)/, -+('1#4+11JG+-25E#'23#*1'2+('6A#)9)('-2'G-1-(AH#'23#

#

3" ' * * 6+, - ' (+3#

444KG, K+39P, /2(+2(PG, J4+GP), &//1)P7, ')P3+*'6(7+2()P*&A)-,)P923+656'39'(+K&(71

'23#; '6-/9)#')*+,()#'6+#-2,193+3#/2#: /6+#,/96)+#)A11'G-K##

0" O a GPA a da a d c d d d a ac d a d c #%% (#+; -3+2, +#' 23#' 2' 1A(-, ' 1#' **6/' , &+)#3/#A/9#9) +#(/#'))+))# 4 & -, & #/.#(& + #)(93 + 2(# + ' 62 - 25#/9(, /7 +) #&' ; + #G + + 2#' , & -+; + 3#7/6 + #/6# +))#4 + 11 = "#

>&+#3'('#3-..+6#3+*+23-25#/2#(&+#2'(96+#/.#(&+#:

(8+#)+7+)(+6#(/#'))+))#)(93+2(#1+'62-25#/;+6#(&+#)+7+)(+6K####)

Z" **W d c W a c** #\$%&/#-2#(&+#3+*'6(7+2(#)#6+)*/2)-G1+#./6# -2(+6*6+(-25#(&+#3'('#'23#7'0-25#6+,/77+23'(-/2)#./6#,966-,9197#/6#'))-527+2(#,&'25+)#.# '**6/*6-'(+=#%&+2#3/+)#(&-)#/, 96="#

 $\begin{bmatrix} 11\#^* \&A)_-, \end{pmatrix} \#_-' & , 91(A\#7+7G+6)\#4\&/\#(+', \&\#: /6+\#, /96)_+) \#^*' & (-, -^*' (+\#+2\#2(+6*6+(-25\#(\&+\#+; -3+2, +E\#./6\#+8\#17)))) \#_-(A+\#./2, +^*(\#2; +2(/6A\#+8\#17))) \#_-(A+\#./2, +^*(A+\#./2, +^*(A+\#17))) \#_-(A+\#./2, +^*(A+\#./2, +^*(A+\#.$