

# ISng 0ghl{8}enkdl6 a\$ In= sf]z0/ af8knf6sf] 5fgjlg ug{ul7t ;ldltsf]kljtj0g

## != k[7eldM

aa/ dxn, sf7df08f0f dVo sfoffo /x\$] PgPdij a\$sf] lgisfzg tyf laqnl  
kj6wsTjdf lgisfzg tyf laqnl ul/Psf] ;Ltfkf0nf, sf7df08f} l:yt ISng 0ghl{  
8}enkdl6 a\$ In+sf] z0/ lgisfzg tyf af8knf6 ;Da6wdf nufglstf{x?n} ljle6g  
dfux? ; lxt af80f ugf; f]lbPsf]pQm af8knf6 ; Da6wdf cfj Zos 5fgljg u/L kljtj0g  
kz ug{ldlt @)^%.^.! sf]gkfn lwtfkq af8\$sf]lg0f0 cg' f/ Ps ;ldlt u7g ePsf0f  
;ldlt0f/f cfj Zos 5fgljg u/L of]kljtj0g k|t't ul/Psf]5 .

## @= hfFaem lj lwM

5fgjlg ug]qmdf ;ldlt0f/f ljle6g ldltf lgisfzg tyf laqnl kj6ws ;:yfdf u0{  
lgisfzg tyf laqnl kj6ws0f/f lgoQm ljle6g ;sng s0b?af6 ;sInt cfj0g  
knf/fdx?sf]gd0f k/Llf0f ul/of]eg]pQm k/Llf0fsf qmdf zsf:kb blvPsf lj ifoa:tx?  
; Da6wdf lgisfzg tyf laqnl kj6ws ;:yfsf]sfo\$ f/L k0v tyf ;Dal6wt clwsf/Lx?; 6  
cfj Zostf cg' f/ ;f]vk5 u/L yk :ki6 kfg{cg'f]v ul/of].

o:t}z0/ v/lbsf nflu k/\$f cfj0g knf/fdx? :jls[ ug]/ c:jls[ ug]; Da6wdf  
lgisfzg tyf laqnl kj6wsn]tof/ u/\$f]cfwf/x? ;ldltn]dfu ug\$ f; fy}af8knf6df  
k/\$f / gk/\$f cfj0gx?sf]lj B'tlo tYofI -Electronic data\_ ; d] dfu u/L ;f]sf]c]l0og  
ul/of]eg]pQm lj B'tlo tYofI ;'rgf klj lw lj 1af6 ;Dk/Llf0f ; d] u/f0{5fgjlg ul/of].

5fgjlg sfoff0{tf]sPsf] ;dofj lwleq g}k'f ug{/ 5fgjlg sfoff cfj Zos ;xof]v  
k'ofpg ;ldltn]gkfn lwtfkq af8\$ f b0{pklgb}z'sx?nf0{ ;xof]v]lsf] ?kdf cfd6qof  
u/\$f]lyof].

## #= 5fgjlgaf6 b]vPsf lj j /Ofx?M

lSng 0ghl{8fēnkdl6 a\$ ln+sf] zϕ/ lgisfzg tyf afBknf6 ; DaGwdf 5fgjlg ubf{ b}fo cg' f/ eP u/\$f]b]vof].

## #=! lgisfzg tyf afBknf8 ; DalGw lj j /OfM

!= lSng 0ghl{8fēnkdl6 a\$ ln+sf] zϕ/ lgisfzg tyf laqnl ldlt @)^%.#.% df vhf u/l ldlt @)^%.#!) df laqnl agb u/\$f] / pQm zϕ/sf] afBknf6 ldlt @)^%.%.& df u/\$f]b]vof].

@= pQm a\$sf] zϕ/ v/lb cfj hq knf/fd ; sngsf nflu ljleGg :yfgdf &^ j6f ; sng s]b}x?sf] Joj :yf u/\$f] b]vof]. pQm ; sng s]b}x?df k/\$f] cfj hgx? /2 ul/Psf]dfqf Gōgtd )=#! kl|tzt b]v clwstd &^!& kl|tzt ; Dd ePsf] b]vof].

#= pQm a\$sf] ?= !)) clst dNosf (,^),)) lSOf zϕ/ lgisfzg ePsf] b]vPsf]df \$,^),^@,) \$@ lSOfsf nflu cfj hq k/\$f] / pQm cfj hq lbOPsf] zϕ/ lSOf lgisflzt zϕ/ lSOfsf] \$&=( \* uoff a9l /x\$f]b]vof].

\$= zϕ/ v/lbsf nflu k/\$f]a9l cfj hqsf sf/of sh zϕ/ dfusf]@=) \* kl|tzt dfq dfu k/f ug{; s\$]hfgsf/l kl|t eof].

%= lgisflzt zϕ/sf nflu sh @, @&, @^@ cfj hgx? k/\$f]df !,&@,%#\* cfj hgx? /ltk] \$ /x\$f] / %\$, &@\$ -@\$=)! kl|tzt\_ cfj hgx? /ltk] \$ g/x\$f] elg /ltk] \$ elgPsf !,&@,%#\* cfj hgx?nf0{afBknf6df ; dfj } u/\$f]b]vof].

^= lgisflzt zϕ/sf nflu k/\$f] sh @, @&, @^@ cfj hgx?d]b] lwtf]kq afBknf6 ; DalGw lgb]zsf] Joj :yf adf]hd tof/ ug]kq] afBknf6 tflnsf cg' f/ @%,#(! cfj hgx? -!!!& kl|tzt cfj hq\_ nf0{zϕ/ afBknf6 u/\$f]b]vof].

-; Dnl]gM afBknf6 tflnsf\_

#@ cfj dg /2 ul/Psf cfwf/x?M

lgisfzg tyf laqnl kj Gwsn]bxfosf cj :yf /x\$ cfj dgx?nf0{/ltkj \$ g/x\$]elg /2 u/\$]b]vof].

-!\_ b/vf:t km/fd k0f{?kdf ge/\$].

-@\_ b/vf:t km/fddf cfj dss]b:tvf 5b ePsf].

-#\_ gful/stfsf]kl|tlnkl k0f0ft ug{5b ePsf].

-\$\_ cfj dg; fy gful/stfsf]kl|tlnkl kz ug{k0f rfnscgdltkq, sf0f0sf] kl/rokq, k/lif kj z kq cflb kz u/\$].

-%\_ b/vf:t km/fd; fy ; mlg ePsf]gful/stfsf]kl|tlnklcfj ds :j0n] k0f0ft gu/l c?af6 k0f0ft u/f0Psf].

-^\_ km/s km/s JolQmsf]gdfs]cfj dgx?df Pp6}b:tvf /x\$].

-&\_ ?= %),,)) e0f a9l nufgl ug[cfj dsx?n]clgj fo{?kdf a\$ tyf lj Qlo ; :yfsf]vftf gDa/ pNny ug{k0f ; f]gu/\$].

-\*\_ !) jf !) sf]u0ffsdf z0/ ; vof pNny u/l b/vf:t kz ug{k0f ; f] gu/\$].

-(\_ b/vf:t km/fd; E gful/stfsf]kl|tlnkl ; mlg gu/\$].

-!)\_ gful/stfdf pNny]vt gfd / cfj dg km/fddf pNny]vt gfd km/s km/s ePsf].

-!!\_ gfjfnssf]xsdf cdf=afah]; Afs e0{cfj dg lbbf gfafnssf]h0dbtf{ k0f0fkqsf] kl|tlnkl b/vf:t km/fd; fy kz ug{k0f ; f] gu/\$] jf c:ktfnf] h0d k0f0fkqsf]kl|tlnkl kz u/\$].

-!@\_ cdf=afa'afx\$ c0o JolQm; Afs e0{gfafns jf lj l|fkt JolQmsf]gddf cfj dg lbbf k|nt sfg0 adf]hd ; Afs]j ux0f u/\$]k0f0sf]kl|tlnkl b/vf:t km/fd; fy ; mlg ug{k0f ; f]gu/\$].

-!#\_ b/vf:t km/fddf u/\$] b:tvf / gful/stfsf] kl|tlnklcfj u/\$] b:tvf km/s km/s ePsf].

-!\$\_ gfjfnssf]xsdf cdf jf afah]b/vf:t km/fddf b:tvf ug{k0f gfjfnfnf0{ b:tvf ug{nufPsf].

-!%\_ afa'jf afh\$]gfd pNny gu/\$].

-!^\_ cfj dg km/fddf n]vPsf] cfj dss] gfd / b:tvf ug{k0f :yfgdf ; fdf0o lsl; dn]n]vPsf]gfd km/s km/s ePsf].

-!&\_ tfl]sPsf]00td l0f e0f sd l0fsf nflu cfj dg u/\$].

-!\*\_ km/s km/s cfj dgx?df Pp6}a\$ vftf gDa/ pNny ePsf].

-!( \_ lgisfzg tyf lj qml ug{cl3 k\$fzg u/\$f]cfx]fg kqsf]aBf g=!!% adf]hd  
cfj bsn]kfnf ug[kg]zt{? kfnf gePsf]. -; DnUgMpQm zt{?sf]k|tInkL\_

-@)\_ clgoldt tj/n] lbOPsf cfj b]gx? jfBkmf6df ; dfj z ug{ g; lsg] ; DaGwdf  
g]kfn lwtf]kq afB]h]sf]Gtk/ b]gsdf ldlit @)^\$.!@.\$ df / lxdfinog 6f0D; df  
@)^%.#.@ df k\$flzt u/\$f]; Fgf adf]hd cfj b]gx? :jls[ jf cl:jst[ u/\$f]  
; d] b]vPsf]. -; DnUgMpQm ; Fgfsf]k|tInkL\_

### #=# afBkmf6df kof]u ePsf]kQffnlsf]k/Llf0fM

lgisfzg tyf laqml kj Gwsn]z0/ v/lbsf nflu k|t cfj b]gx?d]l]b]sg]h]f0{k|fkft ug{  
; Sg] ; Defj gf /xg] jf g/xg] ; DaGwdf hfFaem ug{ ; ldlitaf/f z0/ afBkmf6 kQffnldf  
kof]u ul/Psf]kQffnlsf]k/Llf0f u/f0Psf]lyof]. pQm k/Llf0f kZrft ; Fgf klj lw lj z]f1n]  
lbPsf]k|tj b]gn]afBkmf6df kof]u ePsf]kQffnln]sg}cfj b]snf0{k|fkft gug]hfgsf/L  
lbPsf]5 .

### \$=lgisif{M

5fgjlg ; ldlitn]ljleGg ; sng s]b]x?sf]cfj b]gx? gd]f k/Llf0fsf cfwf/df 5gf0 u/L  
x]f{lgisfzg tyf laqml kj Gwsn]k\$/of #-@ adf]hndsf cfwf/x?df /2 u/\$f]cfj b]gx?  
/ltk] \$ ge/\$f]sf/0fn]g}/2 u/\$f]b]vPsf]5 . o; /L a:tlgi7 cfwf/df /2 ul/Psf  
elgPsf kmf/fdsf]k\$[t x]f{clwsfz+nufglstf{; xl nufglstf{xg eGg]s/f :ki6 xBf  
xB}klg ; fdf0 k]lj lws q6lsf sf/of kmf/fd /2 xg uPsf]kf0of]. pbfx/0fsf nflu z0/  
laqmlsf nflu k\$flzt cfx]fgkqdf cfj b]gstf{cf^gf]gful/stfsf]kQffkqdf cfkmh]  
; Ssn adf]hd gSsn 7ls 5 egl kQffl0ft u/\$f]xgkg]eGg]Jo] :yf nufglstf{sf]  
; lhnf\$ nflu ul/Psf]ePtf klg cfj b]gstf{cfkmh]cf^gf]gful/stfsf]k|tInkL kQffl0ft  
gu/L cfkm'sfo{t sf0fhoaf6 kQffl0ft u/fPsf]gSsn ; d]nf0{/ltk] \$ ePsf]gdfgl  
; f]xl cfwf/df kmf/fd c:jls[ ePsf]; d] kf0of].

k\$/of #-@ sf]v08 -@)\_ sf]cfw/df /2 ul/Psf cfj b]gx?sf ; DaGwdf eg]/2 ug[kg]  
h:tf]b]vPsf s]xl cfj b]gx? afBkmf6df ; dfj z u/\$f]/ afBkmf6df ; dfj z ug[kg]h:tf]  
b]vPsf s]xl cfj b]gx? /2 u/\$f]h:tf s]xl ulDe/ q6lx? ePsf]b]vPsf]5 .

pk/fQm tYox?sf cfwf/df lSng 0ghl{8}enkdl6 a\$ ln= sf]z0/ lgisfzg tyf afBkmf6  
; DaGwdf afB]af6 g}cfjZos lg0f6 tyf lgisfzg tyf laqml kj Gwsnf0{plrt lgb]zg  
lbg' pkoQm xg]; ldlitsf]lgisif{/x\$]5 .

%= ; ěnfj M

lSng 0ghl{ 8ĕnkd}6 a\$ ln= sf] zĕ/ lgisfzg tyf afBknf6sf] 5fgjlg ug{ qmddf lj Bdfg Joj :yfx? xĕf{lwtflkq v/lbsf nflu cfj ħg lbg}lj Bdfg k\$ĕf tyf lwtflkq j fBknf6 kĕffnlsf] kg/fj nf\$g u/l lj Bdfg lwtflkq j fBknf6 kĕffnldf yk ; wf/ ug{ jf lwtflkq afBknf6sf]nflu cĕo pkoQm lj sllksf]vf]hl ug{kĕg}cfj Zostf b]vPsf]5 .

o:t}cĕo JolQm?sf]gfd / kl/rosf]b?kof] xg glbg nufglstf{?sf] :ki6 klxrfgsf nflu l5\$}cfj Zos Joj :yf ug{kĕg} ; d] b]vĕ5 .

5fgjlgf qmddf xfnsf]lgisfzg tyf j fBknf6 Joj :yfdf lwtflkq v/lbsf nflu cfj ħg ubf{ nufglstf{?n}ckgfpkgk} ; hutf tyf b/vf:t ; \$ng s{ĕb?n}lngkg{lhDd}f/l h:tf lj ifox?df ; d] w} ; d:ofx? /x\$}f] b]vof] . o:tf ; d:ofx?nf0{ ĕolgs/of u/l nufglstf{?sf] lxt ; Af0f ug{ tyf eljiodf lwtflkqsf] lgisfzg tyf j fBknf6 sfoĕf0{ ; /n, :j R5, kf/bzl{tyf lj Zj ; glo u/fpg lgDg pkfox? cj nDag ug{pkoQm xg}b]vĕ5M

- /2 ePsf tyf cĕo cfj ħgx?sf ; Daĕwdf sg}cfj ħgstfĕ]a%g rfxĕf lglZrt ; dofj lw kĕfg u/l cfj ħgstfĕ]cf^gf]gfd, ; Dks{7}ĕgf, cfkĕh}cfj ħg aĕnfPsf] ; \$ng s{ĕb\$}f] gfd, cfj ħg u/\$}f] ; vof / /sd, knf/fd gDa/ cflb vhf0{ cfj ħgstf{:j oĕ}b:tvf u/l lgisfzg tyf laqm kĕĕws ; :yfdf lnlvf ?kdf lgj ħg lbPdf cfj ħg ; Daĕw jf:tlj s l:ylt af/] cfj ħgstfĕf0{hfgsf/l lbg} Joj :yf ug{lgisfzg tyf laqm kĕĕwsnf0{lgbĕzg lbg}. ; fy}/2 ePsf cfj ħgx? /2 xĕsf]sf/of vhf0{j} ; f06df /fVg}Joj :yf xg' cfj Zos b]vPsf]/ j} ; f06df gdsf]j Offĕqmd cg' f/ jf cfj ħg knf/fdsf]gDa/sf]cfwf/df ; xhtf kĕ\$ cf^gf] gfd / knf/fd /2 xĕsf]sf/of nufglstf{?n}kĕt ug{ ; Sg}Joj :yf ug{lgisfzg tyf laqm kĕĕwsnf0{lgbĕzg lbg}
- nufglstf{?df cfj ħg knf/fd ebf{ckgfpkgk} ; hutfsf] sdl b]vPsf]h}k}o\$ ; \$ng s{ĕb?df cfj ħg knf/fd ebf{nufglstf{?nf0{l}lj wf xg ; Sg}lj ifox?df :ki6 hfgsf/l u/fpg} ; ĕgf ; aĕ} b]v}g} u/l /fVg nufpg} Joj :yf ug\$ f nflu lgisfzg tyf laqm kĕĕwsnf0{lgbĕzg lbg}
- Ps}k\$[lsf s}l knf/fd /2 xĕ]/ s}l /2 gxĕ]qĕlsf]cĕTo ug{pQm sfoĕf ; ĕlg xĕ]sd{f/Lx?nf0{ ; f}laifodf cledvls/of klzlf0f lbg}Joj :yf ug{lgisfzg tyf laqm kĕĕwsnf0{lgbĕzg lbg}
- b/vf:t ; \$ng s{ĕb?nf0{cfj ħg /ltkĕ\$ eP gePsf]hfĕ u/l /ltkĕ\$ ePsf cfj ħgx? dfq lgisfzg tyf laqm kĕĕws sxFk7fpg}Joj :yf ldnfpg lgisfzg tyf laqm kĕĕwsnf0{lgbĕzg lbg}.

\* \* \*