

ofqsf]Pp6f b7o

-slj tf; aUx_

dft5f kf7/h

lj2 \$ l; h6zln k5fzg kfIn=

slj tfqnd

!= km/s cfv/sf ofqlx
@= bZdgx ; /lft /x\$fa]f
#= cWof/f\$ l j ?4df
\$= o; k6s bz
%= p; n]klg xfd}h:tf]s/f u5{
^= bVg]dgx ; u
&= d ltd] slj tfsf]lj ?4df nV5'
*= ; k{k}hf
(= ca cfk}af6f]/f]gk5{
!)= hnhnf
!!= lkφ df65\$ ul tx
!@= gful/s
!#= elj iosf nflu
!\$= slnnf hōx]sf]>4f-hnl df
!%= p}ofnf]xgcl3
!^= :j oDe\$ cfvf; u
!&= af6fx - !
!* = af6fx - @
!(= af6fx - #
@) = ofqfsf]Pp6f bZ
@! = Pp6f khf/l sf]cfdJoof
@@ = ; kgf

k[7

&
(
!@
!\$
!^
!(
@@
@%
@&
#)

#^
#&
\$!
\$#
\$^
\$*
%)
%@
%\$
%&
%(

km/s cfvfsf ofqlx;

pglx;n]d:of{Nsf]5fn x}]
j l/kl/sf]xl/ofnl x}]
cfk; df ; Nnfx u/]
log}lrhsf]slj tf sf}f}+
t/ dh]eg}+
d:of{Nsf]5fndf
zf}fsf}tsf]/ut e}f}+
j l/kl/sf]xl/ofnldf
cf:yfsf]au}f e}f}+

pglx;n]d:of^aNsf]5ftldf plePsf]
kx/fsf]s'f u/]
dh]Tof]kx/fdf
zf}fsf}tsf]lj Zj f; vf}h}+
pglx;n]d:of{Nsf]k]fxdf bf}f}f}]
lgd}h kfglsf]s'f u/]
dh]Tof]kfgldf
zf}fsf}tsf]lgd}h dg vf}h}+
xhdl km/s cfvfsf ofqlx;
d:of{Nsf]lsgf/lt/
pglx;n] To:t}To:t}s'f b}5g\
d a}n}a}n}s'fx; e}f}5'
pglx;n] kx}hf cfvfn]x}l/x}5g\
d glnf cfvfn]b}l}v/x}5'
xhdl d:of{Nsf lsgf/sf ofqlx; .

pglx;n]d:of{Nsf]leQfaf6
7f]sb}tn em'f}f
; }f emgf}f s'fx; u/]
dh]Tof]emgf}f
zf}fsf}tsf 9595lx; e}f}+
pglx;n]xl/of v}x;sf]s'f u/]
dh]v}tsf cfnllt/
zf}fsf}tsf kf0tfnfsf 8f}ax; vf}h}+
/ k}lo}f enk}x;df vf}h}+
p; sf]bAnf]z/l/sf]cl:tj .
; fylx; . c}6oyf g7f6bf x65
d of]df}ddf=of]7fpdf

xl/ofnlsf slj tf nVg ; ISbg
; If emf\$ f slj tf nVg ; ISbg
xhdl d:of\$bl lsgf/sf ofqlx
xhdl km/s cfvfsf ofqlx .

afabf ufnfx;
p:t}Vofp6]/ rfp/l k/\$g\
sxf'kfpq'c6&fnlsf dflly a;]
ltdlx;sf]d[odf zf\$ dgfpq
ltdlx;sf]d[osf]va/ ku\$}lbg
ds\$]alp; u}af/ldf cfz' /f]of /x\$g\
v]df cfzbd}xnf]d5bf /x\$g\
alxglx;n]p; }/l
k]o\$ lbg, k]o\$ /ft
dlvofx;sf cfvfaf6
cfknhf0{n\$fpqk5{
;f0nf . ltdln]bflgkg; klg
;/lft nls/x\$g\
;f0nf . ;/lft aflr/x\$g\

c\lf/f\sf lj ?4df

c\lf/f\h]dnf0{nv\fb}cfof]
d eflb}uP'±cem}bf\fb}uP'
emg}7hf]lj Zj f; af\sf]
pm dnf0{em\fb}cfof]
d\rf]euf0s}; db/lcf
aGb's, t/af/ / aduf\hf
; a}; a}rth af\sf]
pm dnf0{nv\fb}cfof].

ha d bf\fb}lyP' c\lf/f\df
gb\y] uf\df]
el/, kx/f / sGb/fdf
st\jt/ Pp6f d\gaQL kfP'
/, d\h]Tof]afn±
c\lf/f]d; u em.Sof]
pm d; u tSof]
d\h]Toxl lbgb\lv yxf kfP'
c\lf/f]aQLx; u 8/fpbf]x\sf
pm pHofnf] u eflbf]x\sf .

To; kl5 d c\lf/f] u eflg 5f\fb±
d\h]j|/kl/ aQLx; vf\h±
yk}yk}k\sf/sf aQLx;
c\lf/f\sf lj ?4df
ha d l7^a\ pleP'
p; n]dnf0{v\fb; s\g
aQL af\sf] ha d\h]
nv\fbPsf]:j fledfg vf\lg
Pp6f ; fg]uf\df]klx\NofP'
pm d; u ts\fb}uof]
of]va/ d\h]; a\hf0{; gfP'
xf]. Toxl lbgb\lv
d\rf c\kfntx; u ; fy nfu]
aQL af\sf] Toxl uf\df]af6
d pHofnf\sf]vf\hldf lx8±.

o; k6s bz

o; k6s bz 3/ hfbf
dh]9fqm]sf]cgxf/df b} b]f-
pglx]sf]hljgd}b} e}f-
; To xf]g9f6L eg}f]
pglx]sf]; fg]9fs/d}b} b]f-

af6fdf 9fqm]bf0x]n]; f]w]
ef0, b} s:tf]5 <
dh]pglx]s}9fs/kl5 en08}f]
s]l ksfpbf sd]f]df6f]6f]gkg]
l; lna/]ef8f]b]f]pb}eg]-
bf0, b} tkf0}ef8f]h:tf]5
pglx]n]lgwf/ v]RofP/ eg]
ef0, b} t l67nfl]bf]kf]/x} .

pglx]n]l98f]cf}f]nb}ubf{
dh]f la; f]ldf ; f]w]
ef0, b}sf]k s:tf]5 <
dh]6f/l v]lt/ b]f]pb}eg]-
pm]tox]l; dfgf ; b}; b]cfPsf]
k]Nnf ufpsf]lh]dj fnn]l]dr}f]
; Q]xf]hf bf0
b} tkf0}u]x]l v]h:tf]5
pglx]n]lgwf/ v]RofP/ eg]
ef0, b} t b]M/nfl]bf]kf]/x} .

; fx]sf]3/g] ku]
9fqm]bf0x]n]ef/]nf0{6}f]lbb}; f]w]
ef0, b}n]klg C0f vf]5 <
dh]Jofy ; gfP'
bf0, b}n]vfPsf]C0fn]
xfdf]3/-bnfg g}a}bsl 5 /]
xfdf]3/-bnfg dfq xf]g
tf/]e/ klg 8A5 /].
9fqm]bf0x]l/; n]tft] eg]
ef0, b} t kf]bf]kf]/x} .

dh]pglx]sf]cgxf/df x]f-

lrp8f6 blv/x\$]bž
tkk-tkk alu/x\$]lyof]
pglx;n]dnf0{x//x\$]lyP
d pglx;nf0{x//x\$]lyP'
o; k6s bz 3/ hbf .

p; n]klg xfdh:tf]s/f u5{

lxhf]p; n]af\$]f]/ftf]lstfan]
a:tlx; Aol'emP/ p7]
p; n]af\$]f]/ftf]en08fn]
a:tlx; hf]; P/ p7]
xf] lxhf]p; sf]of]hgf
slt ; Gb/ lyof]
; Gb/ /lQmdnf0{5g
ha p; n]
af6f]to u/\$f]g\$; f sf]of]
; fRr}; vb lyof]elj io
p; sf]of]hgfn]
df]lg; x; cl3 a9]
a:tl]n]df]f{s:of]
r/] dxfef/t / ; u/dfyfn]ents] ; nfd u%of].

cfh pmTo:tf]5g
km/s-km/s s/fx; u5{
s; nf0{s]e6bf x65
pmTo:t}To:t}s/fx; u5{
slxn]dl7f s/fx; u5{
slxn]gd7f s/f klg u5{
a:tl]nf0{cft]st agf]pb}
/ftf]lstfa af\$]}
slxn]sf]nf]cf\$]/leq k:5
/ Toxf' alemg]alemg]s/f u5{
slxn]d; u cfP/
galemg]galemg]s/fx; u5{.
/ftf]lstfa af\$] slxn]pm
sf]nf]cf\$]/sf]kl]df af]5
sf]nf]cf\$]/; u s/f gldn]
slxn]qmf]6tsf s/f klg u5{
slxn]lj b]f]x}s]efiff af]5
slxn]xfd]h:tf]s/f u5{
sf]nf]cf\$]/leq
ng-b]g]df tndfly k/]
hun k:g]s/f u5{
slxn]\$fxl'a:tl]nf0{
c; n s/f u/\$f]xf]ls e6g]

/fd}vfnstf]eð kf5{
h}hlt s/fx¿ u5{
/ftf]lstfa af\$}]u5{
/ftf]em08f cf9}]u5{.

cr}h pm
/ftf]lstfa af\$}]
df65]lsg]s/f u5{
xftf]; femf ; DklQ
cs}hf0{lbg]s/f u5{
cr}hel/ pm
a:tl-a:tlx¿df
/ftf]lstfasf]kfgsf k]o\$ r]kleq
nfnk}hf{af\$}] lx85
/lQmd llflthnf0{5g]
; Gb/ of]hgfsf]g\$; f a}r]
3/sf]tnf yk5
/ftf]lstfadv sbflk To:tf]lyPg
; fx}c6oyf eof]
a:tl eðn]; !tfPsf]5
d qm}w}n]ylst 5'
d p; sf]eldsf]n]
gof-gof' clgi6tfx¿ ; fl}r/x\$'
pm d}f]lxhf\$}f]; xofql
d}f]kof/f]ldq
p; n]/ftf]lstfa af\$}\$}eP klg
/ftf]em08f cf9}\$}eP klg
pm km/s df65]xb}uof]
pm a}n}hftdf km}b}uof]
cr}h d}h]p; \$f lj?4df
gof-gof' df65}¿; u
gof' df}f]{s:gkg]eof]
gof' of]hgf sf}kg]eof].

bVg]dgx; ; u

dg 7fp'-7pdf bV5
3DtL-3Dtldf bV5
sg}rf8kj \$f]a]hf
ul/asf]cfugdf bV5
slxn]cefj sf]cu]gdf bV5
alxglx;sf]3f3/df klg bV5
ef0x;sf]sd]hdf klg bV5
s]ug]of]dg o:t}5
k]o\$ kf0nf-kf0nfd bV5 .

slxn]hflu/ vf]h] nvt/fg ePsf]
ef]nsf]Pp6f s0f]f/n]
k]o\$ 5fssf]uf; sf6] lsg\$]f]
..uf]vfkq] / ..sfl]tk/]lsf kfgfsf]
..cfj Zostflsf lj 1fkgx; sl6^a ub]
; /lft knfon u/]
dIng xf; f]xf;bf
; To x]hf . g9f6L eg\$]f]
of]dg t x?Ss}xg]u/L bV5 .

bVg]s/f]sf]aofg
j t]dfgdf hlt u/]klg x65
bVg t slt xf]slt
w]w]w]bv\$]a]hfsf]s/f u/f}
To:t}To:t}Pslbg
cfkn]5f]lsf]lj j fx ug{
cfugdf a;] bf0hf\$]lx; fa ub]
?Gr]cgxf/ nufpg]
5f]lsf]afasf]cgxf/ bVbf
of]dg bVg; Dd bVof]
lgb}gnflg]u/L bVof]
of]dg ; fx; fx}bVof].

o; }o; }u/L
k/f/ ; fn dg
6gsk/ eP/ bVof]
Tof]j if{dg sfnl]t/}blv/xdf]
csf]j if{d]ldf bVof]

d ltdl slj tfsf]lj?4df nV5'

Ps uf; kfpq]cfzdf
Pp6f lgj {q gfuf]dfc5}hf0{
; Eo dfc5]eGb}ltdl ha slj tf nV5f}
clnslt bfg kfpq]nfedf
ha ltdl k}fj fnx;sf]crof ufp5f}
d]slj tfsf]dNo /Vg
ltdl slj tfs}lj?4df
slj tf nVgk5{
ltdl]lgots}lj?4df
slj tf nVgk5{
ltdl kl; gfsf yf]kfx;df slbPsf slj tf
h; /L dg k/fpb}f}
d klq l; ud/d/sf]e%of^a r9b}
sg}; hf0Psf]a7sdf
d7f lkφ kl; gfsf yf]kfx;
sNrg]of]hgdf ; l/s slj tf
To; u/L 30ff u5{
d ltdl slj tfsf]d[o' 3f]f0ff u5{
d ltdl slj tfs}lj?4df nV5'.
d]kl9/fv\$]f]5'
kN6' yf; n]lbPsf]
uGb] / dfGb]cf]5}dfP/
ha ltdl /ftx; laTy]
slt ; Gb/ lyP slj tf
d}]sfdln]lbPsf]
e6\$]ds}vfP/
ha ltdl ef\$ dfYof{
To; kl5 nV\$]slj tf
gkfn]cfkng}slj tf xGyof]
ltdl gkfn kng]slj tf nVYof}
slt ; Gb/ lyof]slj tf
lxhf]fh ltdl Toxl slj
kh7]f]r97 ; x/ 3D5f}
hgtfsf enk]df /dfpg]ltdl
a}saf6 l; udd{ lemsfp5f}
/ b/af/ agfp5f}

crjh hgtf ltdf slj tf aemgg\
ltdl b/af/s}h:tf]slj tf nV5f}
of hgtfn]gaemg]slj tf nV5f}
x/\$ j :t5f b0{lsQfxz emf-
crjh ltdl Pp6f lsQfsf]klfdf nV5f}
d csf]lsQfsf]klfdf afV5'
ltdl gfglemg/d xftxzs]klfdf nV5f}
d 7hf p7sf xftxzs]klfdf afV5'
xhdl km/s af6sf ofqlxz
ltdl d7f]slj tfsf lj?4df nV5f}
d ltdf slj tfs}lj?4df nV5'.

d oltahf
kN6'yfzsf]5fgf]rlxPsf]ahf
zf; sxz a:tlleq k;]
bjL v8sfnf0{anf]sf/ ul//xsf]ahf
b/af/sf]c\$flnsfdf 3Dg]
sgj}/fhstdf/lzf ofgsf Joyfxz
d s; /L nVg ; S5' <
d d}]sfdlsf]cuqf gan\$]ahf
cfkmtxzs]bnfg phf]8Psf]ahf
s; /L nVg ; S5' sfhl; fxpsf]vzl
gkfnlxzs]cfug 6lqmPsf]ahf
d]L, dxfsfnl nl6Psf]ahf
s; /L nVg ; S5' lxnf/L lSn66gsf]dlxdf <
ltdl hit ufnl u5fzu/
d slj tfsf]0Hhtsf nflu nV5'
d ltd}slj tfsf lj?4df nV5'.

; k{khf

p; n]r]gfsf 6fpsfx¿df
; l;ug t]ofpb}eGof]
.k]hftGqú lhGbfj fb
af?bsf]w]f 5/7
zflGt l]f]sf]k|tfj /fVof]
/ eGof]
.zflGtú lhGbfj fb
ef\$]f kØ / gfuaf cf^ax¿nf0{
uf]sg ; k(h]em}8:b)eGof]
.wØ] lhGbfj fb
/ cfkm'gfu ePsf]3f]f0ff u%of]
; lbof]v ol a:tlx¿df
cfkm]k]khf u/f0/xØf]
k]hftGq, zflGt / wØ]sf]gfdd}
p; sf cfvdf u8\$fx¿nf0{
PsfPs u/7 8:of]/ut /x'-h]h
/ut ; lSpkl5sf cl:y/k-h/x¿
s]lnf0{; }l]sf lsgf/l]t/ km]Nof]
of st}eldfg h]nlt/
of ; vfgllt/
/ sØ]gby]\$]f 7fp]x¿df
t/ cfkm]hf0{
gfu eg] khf u/f0/xØf].

kl/j t]g]sf]ultnf0{n]ofpb}
x]fdln]klg khf ul//xØf]-
o; k6s pm]xg; Dd gfuaf]eof]
; a]h]b]Vg]u/l gfluØf]
/ xtf/-xtf/
8/}8/df
; bfem]km]v x]fdlnf0{e]q]df /fVg]
gfusf]cfs[t]sf]pxl 6f]kl le%of]
/ em]f]xf'; f]xf':of]
x]fdllt/ km]s]l
km]v k]hftGqs}s'f u%of]
pm ol]ta]h]f gf6sdf ; fd]h lyof]
x]fdl ; a]h]pm ; k{ePsf]7x/ u%of]-
/ w]l]t/ vf; v'; -vf; v'; u%of]-

t/ o; k6s klg
pxl vt/f afSlg}/x0f]
k|ft6qsf]gf/f ; k6]nufP klg
nfrf/ xfdl ; lg/x0f]-
slxn} Dd ; 65f}<
t/ pxl vt/f
cem, Dd ; lg/x0f]-

ca cfmj}af6f]/fjgk5{

p; nf0{k|o\$ /ft ; kgdf
lj iffn' ; kñ]nvø5
/ lj kgfx¿df 8:5
pm zx/df a:5]
/ hñsf]cge|t u5]
cfkn6tx¿sf]; jñgf 5f05]
/ 9ñsf]cfs[t eø5]
pm xfd}zx/df a:5]
ot\$}t}j|/kl/ a:5].

p; n]cfh laxfg}; dfrf/ ; gl
hñaxfb/x¿,
dfyj / l; xx¿sf]x|of/f vñg]
cfofñ agf0/x\$g\
p; n]PsfPs sfg ygl
/ egl
o:tf clgi6 ; dfrf/x¿
dñ]hlj gd}efñ\$ 5'
/ a] /f\$ /sf]ehñ; u
d2f n8\$ 5'
xhdl klg p; s}ctltemñ-
3/leq lj zfn /\$6/sf]
e0rfnf]kfn]
Toxl ; dfrf/ ; lg/xðfñ-
pm; u}Toxl ; dfrf/
xhdl klg ; lg/xðfñ-

p; u}xhdl]klg
Pp6f c|of; nñbf]elj io
oxl a:tldf nñk; f/ ; t\$]5
|of]|Toxl elj io xf]
ca p; sf]5f]fn]
cfkmj}afa\$]x|of/|sf]
hñdlbgdf v|zofnl dgfp5
d o; 38ldf oxl cgy{; flñ/x\$'
ca p; sf]5f]fn]
cfkmj}afa\$]x|of/|sf]
d[odf zf\$ dgfp5

skfn sf65
gğ af5{
of]sbj}b6Tosyf xf0g
d j t (dfg af]n/x5'.

ha xfdl lx8g]u/}f]; 8s
kf0nf-kf0nfd efl; 65
k]o\$ lbgx; xfd[]lj kgfsf]
u]lv]df
af9l ag] k:5g\
s]afsl /x0f]ca
xf//x\$]l ltdl
xf//x\$]f xfdlx;
lhTg]hf0{kf]xfg\$]8/
xfg]n]af/Daf/ wfj f af]h]x65
xfdl]klg af]h]x65
sf9f 6\$] afRg l; s\$]f xfdlx;
em/n]lha]5\$] xf:g l; s\$]f
xfdlx;
ca cs{af6f]vf]lgk5{
ca cfkn}af6f]/f]lgk5{.

hnhnf

lj Zj f; kxf8df klg kmNbf]x\$
cf:yf lzv/df klg emNbf]x\$
dflg; x; ltdl; u xftdfnf]u/]
d[o; u ; Gb/ v]h v]bf /x\$g\
hg / 3fd; u v]h]em]-
afbn / slx/f] u n\$]em]-
hnhnf . ltdl t kxf8 xf}
d]f]b]zsf xhf/f]kxf8x; d]Wb]
; fRr}km/s kxf8
d]h]ltdf ultx; ; g\$]f]5'
w]k6s cfsz vh\$]f]a]hf
lflthdf /lQmd cfef kf]vPsf]a]hf
st}hnhnf o:t}xf]hf eg]
klZrdlt/ kms] x]\$]f]5'

hnhnf sfv km/flsnf]kfgk5{
ofqf cem]nfd]5
hg; u cu]fnf]xfn]
gfRg]lbg cem]cem]6f9f 5

ofqfdf e]6Psf
hgsl/l; u /dfP/ a:g' xGg
lj iffn' xftx; j l/kl/af6
ltdlnf0{5f]b]\$g\
ltdf]5ftlleq hljgsf]vfgl 5
ltdf]x]oleq lj Zj f; sf]; u/dfyf 5
hnhnf . dnf0{cr]h xbf]
ltdf]lzv/sf]prf0df r9]
Psk6s k] [t/ x] {dg nfu\$]f]5
ltdf]; Gb/ ult /Rg dg nfu\$]f]5
s6Ss dg sfl6g]u/l
tGg]lx; ; ft ; db|kf]l/af6
lj snfs z/l/ lnP/ kms{x\$g\
/ x] /x\$g\ltdf]prf0nf0{
pglx; nf0{ot}afRg l; sfpgk5{
uNnf] fnsf]kl5
d]aQlem]klUnP/
elj iosf]d]t[0ffdf

of}g; u}hlj gnf0{hnpfb}
k/fof bzt/ hh'; em; tftl nfb5g\r}lx;
pplx; nf0{oxl' afRg l; sfpgk5{
hnhnf . ltdf]lzv/nf0{rd}
dnf0{klg cr}hel/
/fgf sf65sf]cgxf/ sf} {dg nfu\$}5
laN6' yf?sf]cgxf/ km} {dg nfu\$}5 .

hnhnf . ltdl 0ltxf; nf0{abNg vfl}g]kxf8
j t}fgnf0{wfj f afl}n/x\$}
d}klg a:tlmf0{olta}hf v08x/ by\$}5'
ltdf] rldSPsf cfvfem;
d}klg a:tdf cfuf]; Ns\$}by\$}5'
ltdl dxfef/t xb)d}f]a:tlit/ km}gk5{
r/]xb)d}f]a:tlit/ t6sgk5{
d klg j t}fgsf lj?4df ; h}dg als/x\$}'
d klg oxl v08x/ a:tlaf6
Pp6f ; kgf ; flr/x\$}'
d klg oxl hn\$}f]a:tlaf6
; 6b/ elj io vfl}n/x\$}' .

lkp df65\$f ultx;

dñ]w}]ultx; ; g]t
df65x;sf ult
Tolt dfq ; lgg,
df65x;n]ufP
df65h]df65hf0{l; gf]agfP/
vfgx;sf]ult
dñ]w}]ultx; ; g]t

; g\$sf ultx;df vfh]t
d]f lkp lgi7fsf ultx;
t/ yf]e]t
d]f lkp ultx;
clnslt kfgfx;df e]t
lkp df65\$f ultx;
w}]w}]; f]t
lsg n]vP <
olt w}]l]stfax;df
df65]vfg]df65\$sf ultx;
dnf0{lgi7fsf ult ufpg dg n]lof]
/ cfqmf]z eP/ ufP'
cf:yfsf ultx;
d]f lkp df65\$sf ultx; .

hñnsf ultx; e]bf klq
lsg n]vP l]stfax;df
Tolt g/fd] df65\$sf ultx;
tl ultx;e]bf
slt /fd] 5g\v]af/l]sf ultx;
bfgkfg]sf lglDt
ljz \$:v]nt ug]x;sf
6fluP t:j]l/x;
leQfx;df
rf\$fx;df
d s; /l ; x65' <
/ dñ]ufP'
c; n df65\$sf ultx;

lkø df65\$ř ultx¿ .

Tolt w}}stfax¿df
olb p; n]
v/fa df65\$ř ulx guffPsf]eP
d of]ult lsg ufpy}k
t/ zx/sf rf\$ř¿df
a}ssf le0fx¿df
a:tlsf l; /fgx¿df
df65]vfg]df65\$ř
ulx¿ n]VP
t:j l/x¿ 6fluP
ca dñ]n}gk5{
c; n df65\$ř ulx¿
dñ]ufpgk5{
lkø df65\$ř ulx¿ .

gful/s

pm xfd}zx/df a:5
ot}j l/kl/ a:5
t/ bž hnfp5
/ cfuf]tfl5
d s; /l e6g ; S5'<
pm d7}bžsf]gful/s xf].

eljiosf nflu

; lborv crfg]ag]
cfkntx; kl8f xfl; /x5g\
k'; df3sf]l7xldf
lr; f]lxph]sfl6Psf]dg
eljiosf]kvf]ndf 6fu\$ f 5f}
l; /s cf9] 5kf/xf;
; kgf afl8/x5g\
klxn]zfl6tsf]s/f u5g\
/ geP qmfl6tsf s/f u5g\
csfl/ cfknt}cfvf cufl8
uf6wlsf]nf]6\$] lx6n/x;
uf]o a7s al; /x5g\
lxhf]ufpdf dfq ugfp]af?b
zx/d}k:g yfn\$]5,
ca dflg; x/fPsf]va/ cfp'g'
sg}cgf7f]36gf /xg
dflg; dfl/Psf]va/ cfp'g'
sg}gfn]; dfrf/ /xg,
dl7f]; kgf af\$ \$f
ql; t cgxf/x; sf]
Pp6f sf]hglaf a; \$f]5'
sf7fel/ k7gsf]cWof/fh]5f]5
d afr\$]j tdfgdf
cWof/f]5fdg /ft kvg}kbg .

glhs}hunx; 5g\
j; 6tsf]; ?cftd}
Toxfaf6 nf; x; sf]u6w cfp5,
hunaf6 uf]hlsf]cfj fh cfPkI5
x/fPsf cfkntx; sf]; Demgdf zf\$ dgfp5f}-
xhdl blv/x\$ f 5f}-
cfkntsf cl:dtfx; nl6Psf 5g\
r]gfn]lxWofPsf]v]df
pHofnf]/fk/x\$ f slnnf ef0x;
; bfsf nflu lgdf]7Psf 5g\
of]; dodf
d o; sf]hglaf6
ltdf lglDt

gf/f afx\$ s]nVg ; S5' <
s]; gfpq ; S5' <
; Gb/tfsf gfddf
; Qfsf]:j fy{/fVg]slj tfleq
dfVg; nf0{; 8s agfP/
lg3f{ c;n]sNrbf
clnsIt klg bVb} eg]
d p; sf cfvdf
gf/f nVg dg k/fp5' .
/lBofh]afh\$]s'/f
s6f/L xb}; fh'; Dd
g} vVg]el/of bf0
lkm; xf'; l p8fp5g,\
ca s; nf0{yxf 5}
cvaf/ k9}'/
Psgf; au/df 6fhfpg'
sg}cGt/ 5},
6hlehgn]gf6s bVf0/x\$ ls ; dfrf/
aem; ; do nflb},
hunaf6 a:tllt/ l5/\$f gf/f; u
qmdzMlj Zjf; 66b\$,
t/ klg ; kgf sf{5f8}sf]sg}cy{5},
cfGbf]hgsf]8/n]
zjj fxgdf ; 't]
l; xb/af/leq k:g]zf; sn]
cfkng]pHHj n elj iosf]klfdf
lj 1fkg ul//x\$]ahf,
xfdf]lk} hundf
lj b}l lu4x; cfoft ug]
k|tfj ul/Psf]ahf,
xfdl kj fn k/\$f]b}nf0{
6fVg]of]hgf agf0/x\$]-
hlxn] Dd /xG5 /ut z/L/df
xfdl nl8/xG5}elj iosf nflu
sf}l hh'; eP/ n85f}
sf}l gf/f; u}n85f}-
of slj tf eP/}n85f}-
dfgf}xfdl n8}hlGdPsf xf}-
xfdl elj iosf nflu n85f}-

slnnf hğxçsf]>4f-hnldf

kml/ kñhxç /flg'lyof]
eflñ r9fpg]>4f-hnlsf nflu .

k/f/ ; fn au}fnf0{a9fP'
/ /fk}sxL chDa/L kñhxç
cfdfn]dfllgèPsf]lyof]
sxL y^auf kñhxç dlGb/df r9fpg
5fg] /fdl kñhxç
c; flb]lbg dg lyof]
t/ o; /l ; f}f
pglxç 9Ng'
; u/dfyf 9Ng'xf]
d}f]cf:yf 9Ng'xf]
To; j if{
5ftlel/ kfn}f kñhxç
slnnf hğxçsf]>4f-hnldf r9fP'.

kf}f] ; fn
au}fnf0{kml/flsnf]kf/}f
/ wfg /flg]v}df
/fdl hftsf kñhxç /fk}f
5f]ln]dfu}L ly0{
sxL y^auf kñhxç
rN7f}df nfpq
dñ]To; j if{klg
Psy^auf kñhxç]kñh
cfkñyf nflu /flvg,
slnnf hğxçsf]>4f-hnldf
d}f]au}f d?eldem}l/Qof].

o; k6s
Ps}l5dn xs}f
; a}; fylxç
pHofnf]v}lgsf nflu
nfdl]ofqf /fl}fg\
d ; fl}r/x}f]5'
pglxçsf]cf:yf :vlnt xg'
; Eotf e}sg'xf]
ca s; /l kU5 <

olt yf]hllufdf /fk\$ kithx;n]
slnnf hgx;sf nflu
cfudl j if\$]>4f-hnl r9fpg .

kn/ kithx; /f'lyof]
ef]n r9fpg]>4f-hnlsf nflu .

phofnf]xgcl3

/fi6mf0{aw:yn agfpg]
; ky vfP/
df65]h:t}df65}f l; sf/lx
lxh}dfq
zx/af6 ufpt/ lx8]
dfgf}ufp' pglx}sf]zq' xf]
phofnf]ufp
pglx} b}g}; Sb}g\
cdf . lxh}dfq
zx/af6 s}l xh dflg; x
ufp' dfg{l}8}f 5g\
phofnf]xgcl3
; w}; w}; a}t/
Clif; / o:t}x65 e}y]
cdf . sv}/sf efn}k} kflg'
ca ufpdf rf8}laxfg af}h}fpgk5{.

uf}g ; k}h:t}
lj iffn' df65}k}
phofnf]dfg{
zx/af6}ufp' k; }f 5g\
o; k6s zx/n]
ufps}df65]lsg]
ufp' dfg{k7fof]
cdf . d}h}0ltxf; df k9}f]5'
phofnf]xg}e}bf cl3
; a}t/ ; w}o:t}x65
xdf} vf}h}fx}df kfgl xf}g
/utx} al}5g\
knl8/ / P}+}h}sf en}k}fx}df
df; }f rf}6}fx} en}865g\
cdf . sv}/sf efn}k} kflg'
phofnf]xgcl3
; a}t/ ; w}; w}o:t}x65 .

pglx} ufpdf cfPk15
afng v}g' ck/fw xf]

; lügl ufpg' ck/fw xf]
j Nnf]8f8f / kNnf]8f8f
dg vfh] bxf]l ufpg'
; fRr}; fRr}ck/fw xf]
zx/df a:g]df65\$ f lzsf/lxçn]
; Qsf]8asfdf x\l:sl Vj fP/
of]j if{ufp\$}df65}çnf0{
ufp' dfg{k7fP
ca kltsf/df ufpxç pl7/x\$g\
ouf]v ; t\$ f
du/ sf65fxç p7]
Rof^aaf / lbndfofxç p7]
pHofnf\$]klfdf
bçtfsf]; u/dfyf 5ftldf kfn]
ufpnçn]; lh]lg als/x\$g\
cdfd . pHofnf]f0{:j futsf]tof/ldf
c\bf/}p7ç\ef0xç
gof' df65]f0{lbg]; fçftsf nflu
auçfdf kñh vf]g
rf8}p7ç\alxglxç
/ pHofnf\$]klt lffdf
ufpçg\; çb/ ultxç
cdfd . sv'/fsf efnçç kflg'
ca ufpdf rf8}laxfg af]fpgk5{.

:j oDeŠf cf“vf; “u

lkø slj æ0R5ŠÆ
0ltxf; ePsf tl lbgxç
ltdf]xTofsf]sxl dlxgfc13
xfl Ps; fy a;]
ltdf] Pshf]el dut xftxçn]
clgæf ; kgfxç sf]šf]of]7fp'
:j oDeŠf]Toxl cfvfdlg
d olta]hf
:d[t df vfl]h/xš'.

lkø slj æ0R5ŠÆ
ha ltdf]xTofsf]va/
sg}a]j fg x68/lem}-
ufp' / zx/ kl]of]
p]hofnf]cfsfz vfl]g]çsf
Ps; fy k/]hf leh]
cefj n]yfs]sf ufp]ç
Ps; fy d; u}/fP,
ltdf]xTofsf]va/df
cvaf/xç las]
ltdln]h; sf]el]io
sfnl]u0sldf zflnu]fd vfl]h]em}-
d[oko]t vfl]h/xšf}
xf] To; lbg
ltd]xTofsf]va/df
ul/al cf; xç Ps u08sl au]
; fgf gfglxçn]z]šultxç ufP
lkø slj æ0R5ŠÆ
xf] of]; a}ltdf]xTofsf]va/df .

d]h]ltdf]xTofkl5
Pslbg :j oDeŠf
wfl/nf cfv]nf0{; f]v]-
k/]fgf]em]hf Rofk]
b]anf]z/L/ af]šb}Pp6f 3fd
lxhf]cl:t h:t}
otf 305 ls 30bç <
dl7f]el]io af]š] Pp6f hç
cr]h] otf cfp5 ls cfpbç <
p; sf]xTofsf 8f]axç
ltdln]st}b]v]of]ls b]v]çf}<

of]prf0df a; 7
d7f]lkφ slj sf]nf;
ltdln]st}lr6of}ls lrgφf}<
eg :j oDeŠf cfvfx .
d7f]lkφ slj dfl/bfsf]; flfl
kSs}ltdl xg ; S5f}
ltdln]p; nf0{st}b7of}ls byφf}<

af6fx - !

xfdl clgbf]a;] /fte/
lbgf]s/f uVof+
pm aGb 9f\$fleq a;] lbge/
/fts]s/f uVof]
xfdl ef]nsf lgldt
hg]s]s/f uVof+
pm sgfdf a;]
c]of/f\$]ult ufVof]
p; n]la:tf/}la:tf/}
kl; gfs]l:j ld^a kh
agfpg]s/f ; f]of]
cgfy dflg; sf]/ftf]/utnf0{
xf]ldf v]g]nf]fs]
/ftf]kfgls}d]odf x]of]
Toxl laGbaf6 sf]/P,
p; sf / xfd] cnu-cnu gS; fx
hljgsf gof' af6fx .

xfdl n]blvof yf]sf]; kgf sf]of+
/ p; sf]ef\$]k} c3fpg]
of]hgf sf]of+
sfhlafsf]lakgf sf]of+
/ pgsf]chl0f{k}af6
clnslt 36of+
/ ptflt/ hf\$]of+
pm xfdl; u eml:sof]
; 8sdf ; kgf xsf0/x\$
aRrfx]sf]elj io b]y]
lr}tf n]of+
pm xfdl; u tl; }f]
Toxl laGbaf6 sf]/g yfn]
xfd] nflu gof' af6fx
gof' of]hgfx
xfdl n]p; sf lj?4df
p; n]xfd] lj?4df
o; /l sf]of+
xfdl n]sl/aldl/a
hljgsf gof' gS; fx

cnu-cnu af6fx .

af6fx- @

lkrf; x; x\$nf06 afn]
cuf18lt/ af6f]b]f0/x\$g\
/ cfkmg]af6f]5f\$] 5kf/fx;
; Nnfsf]d9fdf 3fd tflb}
:jls[tsf]6fpsf]xNnf0/x\$g\
dnf0{13g nfl5 pglx;sf]af6f]
Toxl af6f\$]e}df
xdl; ; kgfx; nl6P
xdl nl6Psf]; kgfsf]
dnfdl lx18/x\$]-
d]b]v/x\$]5'-
xdl]cl3lnt/
lzs/ 9sb}u/\$]sf]gnf]gfu
6fpsf]3df0/x\$
/ saf6f]f lx8g]sf]; /lffy{
lx; falstfa ldnf0/x\$,
sf]gnf]0{yxf 5
aRrfnf0{xflnlbPsf]l6lkmg rf]] vfg];
7hf]af6f]lx8gg\
/ l; x; gdf a:g cfp];
of]af6f]lx8gg\
/ hfg]; klg xTofs08 dRRfP/
saf6f]f}hf5g\
dxnsf]6kfaf6 lu2x;
kj fvsf]b'/alg nuf0/x\$g\
/ xdl lx8\$]af6f]hf0{x}f
hf\$-36fp ldnf0/x\$g\
ha saf6f]f n} nfl5
pglx; Ps; fy xdl]af6f]f em0665g\
/ qm' o4 n85g\
xdln]tof/ xgk5{tof]o4sf]nflu
xdln]hf]fpgk5{
cfkm'lx8g]af6f]hf0{
xdl]lk} af6f]hf0{.

af6fx -

;]f nuf nufP/ :ofnx
kzkfng ug[ofhgfsf]
k|tfj kž ul//x\$g\
?vsf]sfkdf a;] pNnx
kfg rkfpb}
bž agfpg]; kgf afl8/x\$ř 5g\
el8 tfnl lkl6/x\$ř]5
Tof]qm/ oyfyřf0{
d gkYoaf6 x\$ř{
/ 5ř5' cfkm'j l/kl/
glhs}sxl xftk/
ufhl nfu] 9n\$ř]
jl/ oj ssf]5ftldfly 6\$ř]
plePsf]Pp6f gfos
s6r6df a6b5 tfs]
ef]nsf]; Qf dflu/x\$ř
dh af6f\$ř]lsgf/df 5g\
d]vflh\$ř ; f/ylx
d hf\$-hf\$]lrRofp5'
/ lgd6q0ff u5{
t/ lsg <
lsgf/df al; /x\$řg\pglx
d]vflh\$ř ; f/ylx
hf]of]af6f]lx8y of]o 5g\
t/ lsgf/df ple0/x\$řg\

lsgf/df pleP/
pglx;n]d]f cufl8 Pp6f af6f]b]yfP
/ eg}
of]af6f]s: tf]5 <
pglx;n]af6f\$ř]kž;řf u/řg\
r6fjl g]fx;n]h: tf]
lj 1fkgxlg Pp6f ; 6b/ af6f]
d]f]cl3lnt/ lyof]
h; nř0{d vflh/x\$ř]lyP“ j iff]v
xdfln]lsgf/x; ; kmf uřof}-
Toxl af6f]df xfdln]
; [6sf]g]řf]syf e6of}-

lj wj f cfsfz cf9]
s0f)/ft ; 6b/ elj io /Rof)+
cf:yfsf s'/fx; u#of)+
chDa/L wfth]ag\$]af6f]
dñ]sNkgf u/ø6bf aflx/
dñ]e\$P' Pp6f ; 6b/ af6f]
Toxl lyof]d7f]lkø af6f].

ofqsf]Pp6f bZ0

lxh)dfq
xhdlnf0{af6f]b}fP/
l; xb/af/ k; k15
Pp6f ofqfdf yfs]
ev{}dfq pglx;
6s}fsf]kfgl lkpb}lkpb}
b/af/dfu\$]af6f]
pQ/lt/ nfu k15
pglx;s}sf/0fn]
0ltxf; df km/ Psk6s
7] nfu\$]3fp x}f
xhdl ofqfdf clnslt /f]sof};

lat\$]f s}l j if{
u2f/l\$]afnl
/fd}; t kmof]
afnl leqdfpg};
b/af/lt/ v}fnf leqdf0/x\$g\
hgtfsf]cf; df ; j { 3f]b}
df65\$]lha] / lublnf0{kl/sf/ agfP/
pglx; ef]h nuf0/x\$g\
sdnlkQsf]/f]lem}kx]P/
lxhf\$]f d}f ; xofqlx;
Toxl ef]hdf ; fd]h xb}
dbf{xf; f]xfl; /x\$g\
lat\$]f]j if{
u2f/l\$]afnl /fd}; t kmof]
pglx;n]ev{}dfq
xhdl]lj j \$nf0{w/f6l /fv]
sfnf]:j fy\$]e}of^r9k15
xhdl]lj Zj f; sf]5ftldf
ltvf]5/L /fk k15
o; k6s,
pglx;s}sf/0f
7] nfu\$]3fp x}f
xhdl ofqfdf clnslt /f]sof};

dnf0{cr]he/L
b/af/dfu\$]af6f]lx8} dg nflb}

cfkny]6f]psf]
k}fdf ; f6y k; n yflk/x\$
lxhf\$ gftf/x
e]65g\af6df
dg{nfu\$; u
clnslt af]g
clnslt xf:g
slt uxf]5,
dnf0{cr]hel/
b/af/dfu\$]af6f]lx8y dg nflb,
xdl]dl7f]; kgfnf0{
anf]sf/ u/]
ev{}dfq
sdnlk0sf /f]lx
b/af/dfu\$]af6f]
pQ/lt/ nfu\$ 5g\
o; k6s,
pglx}s}sf/0f
7] nfu\$]3fp x]I
xhdl ofqdf clnslt /f]sof};

Pp6f khf/l\$]cfdJoyf

d k]o\$ laxfg
zxlbnf0{k\$hf ug{zxlbu\$ hf65'
t/ zxlbe6bf dfly
9; d:; a; \$f]
dnf0{>4f gnfu\$]Pp6f lgnk\$hf zflns
zxlbe6bf klxn]
cfkn\$]3f6ldf dnf yfK5
d zxlbu\$]Pp6f kl8t khf/L .

elij iosf lglDt dg\$;sf]; Ddfgdf
jgk\$ af\$]
; \$n\$]gfuf r9\$ tof/ 5'
t/ 3ff nllg]0ltxf; nf0{
d dnf\$]; hfp\$ rfx6g
ca zxlbs\$]khf ug{
zxlbu\$ gcfP kl\$ x65
ca xfd]ufp\$]gfuf\$;df
zxlbu\$ agfP x65
k\$] d\$]; kgf bllv/x\$]5'
zxlbx\$]6f\$]dfly
k\$] sg}/ft
0bl cl\$gx\$;
l; x\$; g agfpg]ofhg\$ sfll/x\$] 5g\
d zxlbu\$]Pp6f kl8t khf/L .

cem}3f\$] r9]
cfq\$]zt dbldf
zxlbu\$]sf ; flns\$;nf0{
h\$axfb/x\$;
gkYoaf6 3l//x\$]g\
k]o\$ /ft 6l8v]hdf
d]f]cf:yf sllrg]ofhg\$]sf]
a}s rll5
a}ss\$]Pp6f b\$odf
g/zdz]n]cf\$] 78dfP\$]
d\$]w]k6s b]y\$]5'
ca d\$]agfpgk5{
xltof/ af\$] pleP\$]

zxlbsf]gof' zflns
/, /Vgk5{
w/x/fsf]prf0df
of cfkn}ufpsf gfulx¿df
d zxlbu}sf]Pp6f kll8t khf/L .

; kgf

ck/fwlx
h]hsf]kvf] aflx/
a]f]6f] 3ld/x]g\
/ zx/sf rf]x]df
bl6syf
x]d]nf0{-uj {-; gf0/x]g\
e]6frf/sf]cf/f]k]df
h]flu/ vl:sPsf]enf]b]dl
ul/al lgj f/0f]sf]sfo]q]md
d]}; fd' kmf]5
w]}; do e0; Sof]
d pglx ; u; u}5'.

c]6wfx] cl3 nfu]
af6f]b]y]fpg]b]M]j]kg afl8/x]g\
8]0e/x]
u]t]Jodf k]lg]l]j]Z]j]f; g]k]fn]}
ofqx] af]h]f0/x]g\
kx]h]f]j]:q]leq n]sf0Psf 5g\
:j]fy]6f 5/]lx]
; u/]dfy]sf]of]q]df
n]fd}; do e} Sof]
d pglx ; u; u}5'.

cf]6b]f]h]gsf]gf]dd]f
3fd tfk] ; do sf6g]
q]m]l]6]tsf/]lx]
kf6l{clkm; sf]5tdf a;]
ef]h]nsf]el]j]io ; l3/x]g\
dl]6b/]sf]of]q]df kf0tf]; /]
Ps /ft]d]h]f wf0/x]g\
cf:y]fsf]em]h]f af]6]f]s]xl kf]v08lx]
n]fd}; do e} Sof]
d pglx ; u; u}5'.

d; u Pp6f ; kgf 5-
ol ; a} u af6f]df
ef]h]nb]lv
; u; u}lx]8g] gk/]x]6]Yof]

ol ; a}; a}u
Toxl ofqfdf ; u}lx8g]
s}l lgbf} cgxf/x; 5g\
ef}nsf]ofqfdf
d h:t} pglx; klg vf}h/x5g\
emem}fpbf cfvf ePsf df65};
lgbf} cgxf/sf]; Demgdf
xf] d cr}h
w}w}w}/ft /f}sf]5'
d pglx; ; u klg ; u; u}5'
ca dfq Pp6}; kgf 5 .