

Rksy kskmp rkeRbmaj ; nig ensaT

bT dan Gnw tpecRviTua

kar Tik dakRSU



erobcEday naykdanpSBpSaykskmp  
shkarCamly naykdanekSRtsaRsp nig EkI Rdkkskmp



]btEday KragkarpSBpSaykskmp kmCa-GRsp I

Gksresr<sup>3</sup> mas Bisidæ  
nisSitbNttskSa enAsakl vitüal kymasSl  
RbeTsj UehSLin

kal brécã<sup>3</sup> Ex vicika qãM2005

esckpph

BaküéBj én bGb KWbTdanGnutpécRvCa : . bGb Bnül BrebobGnutpécRvCaedh,l  
CYedahRsaybBaäEpikkskmpbskskr . bGb plknUB%manbTdan nigsMar<sup>3</sup>sRmab; [mRnpSBV  
pSayepbécRvCaenHeTAKskr . eKal KMiténbGb KWdh, pSBpSaydI :XM RsknigextpnATTUad  
RBhraCaNacRkkm&a . bGb RtU)aneKsresrsRmabeGaymRnpSBpSay GgkareRkArdaPi)al nig  
Epik epSg<sup>2</sup> eTotEdI bMkarenAküvisy/GPivDAn<sup>3</sup>/4kskmpnAtammU daneRbR)as; . bGb man  
I kN<sup>3</sup> ddxagerKamenH<sup>3</sup>-

- GacbtEbn)an-bGb GacykeTAGnutp)anenARKb;TKEngkRbHraCaNacRkkm&a
- samBaäbGb GacerbR)as;)anedayRKbEpikEdI bMkarenAtammU dan
- gayyI ;gayRsv kRkarpI nUB%mansMan;<sup>2</sup>

bGb RtU)ankMntGaTPaBedayEpkeTAtambBaäEpikkskmpMan;<sup>2</sup>rbskskrtamry<sup>3</sup>  
RbPBcaerchdtCa RbB%RKbRKgB%manrbsnaykdanpSBpSaykskmpu (FSMIS) EdI plknUB%man  
sMan;<sup>2</sup> rbskskr . bBaäEpikkskmpbskskr RtU)aneKvPaKtamry<sup>3</sup>karvPaKRbB% eksRT-  
brisAnfak:XM(AEA) enATTUadRBhraCaNacRkkm&a . bGb manenAtamsBb% nanaddxagerkam<sup>3</sup>

- viTüasAnRsavRCavCati
- Rkmkskr
- GgkareRkArdaPi)al
- TPakgarRsavRCavGnpCati
- kmpFpSBpSay
- m&SOMy
- EpikÉkCn

bGb RtU)anRKbRKgedaynaykdanpSBpSaykskmpnRksyKkskmpurkRbmaj nigen saT .  
bGb RtU)ansresredayGkÉkeTsedI manbTBesaFnenAküRBhraCaNacRk km&a . dteH bGb  
plknUbTBesaFnI %sRmabGnutpécR vCa . bGb RtU)anqgkatkarRtvtBhitü rbsRkmkargar  
bGb bnbmkGnm%nigGnBaätedayRksyKkskmpu rkeRbmaj nig ensaT sRmabeRbR)as;  
enAtammU dan .

sRmabB%manbEnfn sbtMak;Tmg<sup>3</sup>  
naykdanpSBpSaykskmpnRksyKkskmpurkRbmaj ;nigen saT  
PbBj RBhraCaNacRkkm&a

# matka

esckppn	>>>>>>>>>>
matka	>>>>>>>>>>
1> karBBNna	>>>>>>>>>>1
1>1 eka bNig nig sarbeyaCn_	>>>>>>>>>>1
1>2 I kN <sup>3</sup> nic <sup>3</sup> GPABsmRsbxagEpkbecReTS	>>>>>>>>>>1
1>2>1 eynD½	>>>>>>>>>>1
1>2>2 I kN <sup>3</sup> ib <sup>3</sup> snPaBPthisaRsp	>>>>>>>>>>2
1>2>3 esckttUkarBI kmp	>>>>>>>>>>2
1>2>4 snPaBesdic <sup>3</sup> bskskrEdI )anTTV yknUbecRvitüaenH	>>>>>>>>>>2
1>2>5 Gnsasn_nig tRmUkarBessnanaepSgeTot	>>>>>>>>>>2
2> eka karNENnaUbecReTS	>>>>>>>>>>3
2>1 mU ehtu b <sup>3</sup> PaBcaNckgkarbegltEksarenH	>>>>>>>>>>3
2>2 kar)atbgnaenAkgeBI Tikdak;	>>>>>>>>>>4
2>2>1 kar)atbgCabrimaN	>>>>>>>>>>4
2>2>2 kar)atbgKINPaB	>>>>>>>>>>5
2>3 karRbRkgRkabRstvenAmneBI Tikdak;	>>>>>>>>>>5
2>3>1 karRbmU pl kgeBI dRmRtU	>>>>>>>>>>5
2>3>2 kare)akEbnCabonIn; nig BNFVGaybHTgE <sup>3</sup> xdj	>>>>>>>>>>7
2>3>3 kar sm <sup>3</sup> tsmRsb	>>>>>>>>>>8
2>3>4 karhal sm <sup>3</sup>	>>>>>>>>>>9
2>3>5 kNNCaej Is	>>>>>>>>>>9
2>3>6 kic <sup>3</sup> karBarTI ngstKNj	>>>>>>>>>>11
2>4 CeRms b <sup>3</sup> vFITkdakEbbfj	>>>>>>>>>>14
2>4>1 karTkdakCaKhr b <sup>3</sup> edaycakFar	>>>>>>>>>>14
karsagsgCRgk b <sup>3</sup> brkerTkdakCaKhr	>>>>>>>>>>15
2>4>2 karTkdakkj)av	>>>>>>>>>>19
2>4>3 karTkdakkjbrkerbitCit	>>>>>>>>>>20

2>5	pI cNj GBkarEkI m¶	>>>>>>>>>>23
2>6	\TBI eTÆI brisAn	>>>>>>>>>>25
3>	eKal karNENnalKj karpSBpSay	>>>>>>>>>>26
3>1	Epnkarkargar	>>>>>>>>>>26
3>1>1	karkNI t,témEd I RtUcNIay	>>>>>>>>>>26
3>1>2	GkKNI	>>>>>>>>>>26
3>1>3	eynd½	>>>>>>>>>>26
3>2	vFsaRspSBpSay	>>>>>>>>>>27
3>2>1	karRCserIsTkEng	>>>>>>>>>>27
3>2>2	karRCserIskskr nig karerobcM	>>>>>>>>>>27
3>2>3	karrhcnkBlakkskr nig GkRkbRkgkarTkdkRSU	>>>>>>>>>>28
3>3	BesaFn_ nig karGnutpbgäj	>>>>>>>>>>28
3>3>1	cNgeCg	>>>>>>>>>>28
3>3>2	TkEng	>>>>>>>>>>28
3>3>3	eKal bNlg	>>>>>>>>>>28
3>3>4	vFsaRsp	>>>>>>>>>>28
3>3>5	karRsg;nig vPaKThny	>>>>>>>>>>29
3>3>5>1	karvaskNI tRbcaK	>>>>>>>>>>29
3>3>5>2	karvaskNI tenAeI cabepn nig eBI bBaD	>>>>>>>>>>29
3>3>5>3	karvaskNI tGRtasbNm	>>>>>>>>>>30
3>3>5>4	karkNI tnUGrtadNIURKab;	>>>>>>>>>>30
3>3>5>5	karvaskNI tGRtaGgæedh	>>>>>>>>>>31
3>3>5>6	karvaskNI tGRtastV	>>>>>>>>>>33
3>3>6	karGnutpbgäj	>>>>>>>>>>33
3>3>7	karcNIay -eTAtamI TPaBCakEsj;	>>>>>>>>>>33
3>3>8	skmPaEdI KYGnutpAkjGMLgeBI Tkdk;	>>>>>>>>>>33
3>3>8>1	karBhitüemll CRgk b-kEngTkdk;	>>>>>>>>>>33
	karxöxatCRgk b-kEngTkdk;	>>>>>>>>>>33

vtpanénstKŇĵ ħĳ stŇb	>>>>>>>>>>34
vtpanénstŇ	>>>>>>>>>>34
kardĦ bĦkarektĦpSt	>>>>>>>>>>35
karxĦxatedaysarsŇŇĦ	>>>>>>>>>>35
3-3-8-2 karyksŇĦak	>>>>>>>>>>35
sŇĦakbzm	>>>>>>>>>>36
sŇĦaksmas	>>>>>>>>>>36
sŇĦaksġdar	>>>>>>>>>>36
cŇŇŇsŇĦakbzm	>>>>>>>>>>36
cŇŇĦEdĦ RtŇyksŇĦak	>>>>>>>>>>37
3-3-8-3 karBĦitŇŇŇŇPaB	>>>>>>>>>>37
karvasĦŇĦtGrtasŇŇĦ	>>>>>>>>>>37
karvasĦŇĦtsĦtŇŇPaBRĦabŇŇŇŇ	>>>>>>>>>>38
3-3-8-4 karvaytĦmŇŇŇŇkar)atĦġ;	>>>>>>>>>>38

1> karBBNha

1>1 eKal bNng nig sar<sup>3</sup>BoyaCn\_

edayyl eXlj fa<sup>3</sup>

- o karkatbnRynUkar)atbgRKabRSUenAerKayeBI RbmU pI K<sup>3</sup>ameFua)ay b<sup>3</sup>vFEd<sup>3</sup>an RbsitPaBk<sup>3</sup>gkarkatbnRynUTMERScmarEdI RtUkarSRmabkardad<sup>3</sup> nig k<sup>3</sup>gkarbegh nUes,ogGahar
- o pI vi)akénkarTkdakpI itpI enHmnsMRsbenAkmeamansPaBF<sup>3</sup>FF<sup>3</sup>ehly
- o karpSBpSaynUcMNHdngs<sup>3</sup>GBbrker nig bec<sup>3</sup>ReTsTkdak,smRsbdl kskrenAETCa kic<sup>3</sup>Raryagmansar<sup>3</sup>sMan;

EksarenHRTU)anerobc<sup>3</sup>Ugedm,l<sup>3</sup>

- o cgRkgnUB<sup>3</sup>zmanEdI manI k<sup>3</sup>N<sup>3</sup>Tak;Tgnanas<sup>3</sup>GBbec<sup>3</sup>ReTs nig EbbTTad<sup>3</sup>LayEdI manRbsitPaB nig gayRS<sup>3</sup> k<sup>3</sup>gkarGnutp\_ k<sup>3</sup>gkarTkdakRKabRSU edayEp<sup>3</sup>keTael kic<sup>3</sup> Gnutp\_CakEsp<sup>3</sup> nig I T<sup>3</sup>l énkarsavRCavf<sup>3</sup>
- o pI dI PakgarpSBpSaykskmpUeKal karNE<sup>3</sup>NnaMhig CeRmsbec<sup>3</sup>ReTsTad<sup>3</sup>LayEdI manI k<sup>3</sup>N<sup>3</sup>mins<sup>3</sup>PKsaj gayRS<sup>3</sup> k<sup>3</sup>gkarGnutp\_ nig eRCseris tRmUeTAtamI k<sup>3</sup>g<sup>3</sup>AD CakEsp<sup>3</sup> nig FnFanEdI man b<sup>3</sup>Gacrk)ank<sup>3</sup>gkarephnUcMNHdngdI kskr nig G<sup>3</sup>kkRk; RKgRSUedm,tGayKatGacbegh<sup>3</sup>pI c<sup>3</sup>Nj nig rkSa)annUKINPaBpI itpI .

1>2 I k<sup>3</sup>N<sup>3</sup>vic<sup>3</sup>GPaBsmRsbxagEpk<sup>3</sup>bec<sup>3</sup>ReTs

edayyk<sup>3</sup>cit<sup>3</sup>TkdakeTael II k<sup>3</sup>N<sup>3</sup>vic<sup>3</sup>nanad<sup>3</sup>EdI manerobraxageRkam ngeF<sup>3</sup>GayR)akdfaGnu sasnnanak<sup>3</sup>EksarenHGacngGnutp<sup>3</sup>ansmRsbetAtamesck<sup>3</sup>af<sup>3</sup>

1>2>1 eynd<sup>3</sup>

karcU rhrbsRspnAk<sup>3</sup>gkic<sup>3</sup>RarenHmansar<sup>3</sup>sManCaTb<sup>3</sup>Ut . CaTETA Rsp<sup>3</sup>meCaGikeF<sup>3</sup>Ukic<sup>3</sup>Rar p<sup>3</sup>HSem,gest<sup>3</sup>EtTad<sup>3</sup>Gsedayr<sup>3</sup>hTad<sup>3</sup>kic<sup>3</sup>FrkSaksipI EdI RbmU )and<sup>3</sup>CaRKabRSUCaed<sup>3</sup>m . kar pI dI Rsp<sup>3</sup>UcMNHdngs<sup>3</sup>Bbec<sup>3</sup>ReTs nig v<sup>3</sup>FTkdakRKabRSU RBmTad<sup>3</sup>kic<sup>3</sup>RarBarTbsat<sup>3</sup>c<sup>3</sup>Bahkar )atbgEdI manPaBsmRsbetAtamI k<sup>3</sup>N<sup>3</sup>vi<sup>3</sup>uasarsp<sup>3</sup>ngeF<sup>3</sup>GayRsp<sup>3</sup>nig RkmRK<sup>3</sup>sarman I T<sup>3</sup>PaB yagR)akdk<sup>3</sup>gkareF<sup>3</sup>GaykanEtRbes<sup>3</sup>rnUsut<sup>3</sup>PaBes,og tamry<sup>3</sup>karmankanEte<sup>3</sup>chnUbrimaN RSUedI RbkbedayKINPaBxss<sup>3</sup>Rmabkarh<sup>3</sup>bck<sup>3</sup>kd<sup>3</sup>CasRmabkarI kdt .

### 1-2-2 I kxNDb-snPABPthisaRsp

B%man k%ÉksarEbbbTenH GacykeTAGnutp)ansRmabral ;TitadPthisaRsk%TUtadRbeTs .  
vFsaRst%kdakm%ychMhEdl manPaBsmRsbetAtamesckRtUkar nig I kxNDbSg<sup>2</sup>Karbs;  
kskrRtU)andakbBaP . eTahCaEbbenHkpPakgarpSBpSayKYEteRCiserIsnWvFsaRspSBpSay  
b%Gnutp edayEp%keTael kRmiténkaryl d%gtammU dan brimaNRKabRSUedl RtUT%kdak; nig  
ry<sup>3</sup>eBl T%kdak; . l .

### 1-2-3 esckRtUkarBl kmp

enAeBl cabepnT%kdak; man%icRarCaerchEdl RtUkarkm%Bl kmpRch -Edl CaT%TA RtU)anGnu  
vt%LgedaysmaCkesP%EtadGsk%R%K%sar; d%tCakarRct%kat; e)akEbn sm%t sm% erobcM%  
sagsgCRg%k br%k% b%kEngT%kdak; nig karT%kdak; . bn%bBenahmk km%Bl km%t%mak;  
Gacn%gmanPaB RkbRkan;k%karTTV yk nig Rbt%t%t%UbecR%TSedl manerobrabk%ÉksarenH  
nig k%karEfrkSabr%k% nig pl it%pl T%kdak; .

### 1-2-4 sNPABesdecRbskskrEdl )anTTV yknUbecRvifuaenH

kskrTadLayEdl mandERscabBkn%h%k%ta b%Edl RtUkarT%kdakRSUcabBl 1 etaneL%geTA  
ehlyEdl manfvikasRmabcM%NayRbmaN%Ca 20 eTA 40 m%werol Gacn%gTTV ykeTAGnutp%U  
vFsaRspnig becRvifEdl manerobrabk%ÉksarenH .

### 1-2-5 Gn%asn\_nig tRnUkarBessnanaepSgeTot

vaCakar%Man; nig ca%Nac%ad%NasEdl PakgarpSBpSaykskmRtUEst%y%l ; nig vPaKeGay)an  
RkbRC%geRCayG%b%N%rkar nig Rbsit%PaBénRbB%b%vFsaRsp%R%smab;l kxNDbm%y<sup>2</sup> . kar  
vPaKminRkbRkan; nig karGnutp%min%smRsb%bnWvFsaRspb%becRvifua%R%smab;l kxNDbakEst%g  
rbskskrGacn%geF%Gaymankarq%ad% nig karmin%sermc)aneCakC%y%k%karbeg%inkRmitC%vPaB b%  
s%mal PaBkskr .

CaT%TA kskrn%gTTV ykeTAGnutp%UkarEk%l m% b% becR%TS%T%kdak;f%NaEdl min%SUEb%k%x%ed%  
min%SumanPaBsa%y%l%al%nig B%Rm%UeGaymankarcM%NayR)akkaseRch b%in%pankarBn%l c,as;l as;  
eF%GayKatgay%y%l ; nig gayR%v%l Gnutpedm, kat%bn%yn%Ukar)atbgRSUrbsKat; . p%yeTAVij  
KateRchE%tmanPaB%kes%k%karEKERb b%p%sb%p%Tad%RS%gnWvFI b%rebobT%kdakRSUtamT%tab; b%  
CaRbéBNr%bsKat;



Ca]TahrN\_karbBaP b=karTTV ykeTARbtptpUbecReTsTkdakfjR)akdCangeF#Gaykar  
)atbgmanticCagmm bfnRbsnebkarcNayedmTnsRmabeF#GaymankarpəsbfenahmankRmit  
xseBkeFobeTAngbrimaNpl cNj nig kareI kTkcitfdI TTV )anBkarmin)atbg; -neya)ay  
b=rebobkNt; témodaymneGaytémøTaeI KINPaB; kskr b=PäkgarrkSaTkdakRSUnngB#ab;  
GarmN\_G#karTTV ykeTAGnutpUbecRvitüaenaHeLy .

enAkjkarvPaKtam témødm nig pl cNj kthmyeTotEdI RtUBhitüBicarNakWfaetRKabRSU  
EdI TkdakenahngRtU)anykeTAerR)asCaes,ógGaharkjRKYsarrbskskrpäl ; bmySRmab;  
I kykR)ak; . kjkrNEdI RKabRSURKanEtRtU)anTkdakedm, karh#ckkkjRKYsarpläl ; kskr  
R)akdCamanPaBsakespkjkarCNayesahnybEnfredm, eF#GayKINPaBvarBestCagmm .  
sbnkarNngmanPaBxsBbnH RbsneBRKabRSURtU)anTkdaksRmab;I k; CaBesskal Naéfö  
I kmansPaBxs;TabxöjeTAtamkrmitKINPaBI YGarKkrbsvasml pnygel kTkcit(kat)an .

edayehtifa karTTV )annUGRTasNnmsRsbKWaktPKnmedm, seRmc)annUeCaKC#y kjkar  
TkdakRKabRSUTajkj nig erkayeBI RbmU pl -rñTajkarTkdakpg; ehlykarRbmaN\_G#  
GRTasNnmeTAtamkarspn nig bTBesaFnRtU)ansegæXlj faBmanPaBc, as;I as; b=ToGTat;  
eF#GaykarebR)asnUbrkqvassNnman sar<sup>3</sup>sManCaTbptt ehlyPäkgarpSBpSaycaMac;  
KYEtmanbrkqrenH .

## 2> eKal karNENnaDecReTs

2>1 mU ehtu b= PaBca)ckkjkarbegitEksarenH  
enAkmea RsUGgäK#adNabS,ógEdI sManCagekbptt . eTahCaEbbenHkp dNabHEtgRtU)an  
kskrdaUtamrdU ehlyenAtNcaerch karRbmU pl GacngektmanEtmgkjgmyqälMedI tRmU  
eGaymankarTkdaksRmabry<sup>3</sup>eBI BI1 Ex rhttdI ybCag 1 qäl

kjviskyesdte© mxgardsManrbskarTkdakKWdm,ITbsátñUkarERbRbV eLgcténkarpÄpäg;  
nig témø. RbsnebkskrGacTkdakRSUrbsKat)aneCaKC#y KatngGaceRbR)as)ankanEtman  
RbsiTPaBnUes,ógGaharEdI Katman ehlyCaTöTAKatGacTTV )anpl cNj erkCagkarEdI  
KatRtUI kRSUTajenahPambnabBRcttkatrç . CagenHeTaeTot TpsarCaerch -]> TpsarGnp  
Cati; EtgEtmantRmUkarRKabRSUGgäEdI mansjgdarKINPaBkanEt xs; .

vFIsaRsTkdakRsUenAkmeAenAEtRtU)anBnitü b=segteXlj faminTanmanI kN<sup>3</sup>smRsb EdI  
 bgGaymankar)at; nig xatbgCaerchEdI minKYngTTV yk)an . kskr)anRbngERogtsU  
 eBj mYrdUedh,bladH EfTadlakCl RbyUfT I nigCmNnig stV tccéRgnana RBmTadjeFkarRctt kat;  
 eGayTaneBI eFVyagNaedh,ITTV )annVTnpl xs; bñnkar)atbg; nig karxatnURKabRsu  
 GgáEdI Caes,ógGaharEdI Katxmk)anmkehlyenaH EbrCabEnfnUbBaáEdI KatkRgmanRsab;  
 eTAvij . GaRsyeh tenH karebR)aseGay)anCaGtbrmanUpI itpl es,ógEdI manRsab; Kwa  
 kicRardmansar<sup>3</sup>sMan; ehlyGaTPaBRtUetpl dI kicRarBarTbsátnUkar)atbg; nig xatTad  
 LayenaH .

RKabRsuGgámanKINPaBI Yb=xs bñnAeBI Rctt kat; . karTkdakminGacngyeFGayekheLg  
 nUkrmitKINPaBenaH)aneT EtpyeTAvij I kxat nig ry<sup>3</sup>eBI TkdakGacngman\TBI xat  
 dI karfycthUKINPaBenaH . enAerkamI kxatTkdakEdI minmanPaBsmRsb KINPaBRKab;  
 RsuGacngfycthyageI On sth,Etkgry<sup>3</sup>eBI BI2 eTA 3 emag .

eh tenH KwakarSManEdI PákgarpSBpSayRtUbgáj nig pSBpSaynUcMNHdg nig Bñman  
 TadLayEdI manenAkúÉksarenHeTaeGaydI kskr eFVyagNaedh,eGayKatGackatbnfy  
 )annUkar)atbg; nig karxatnana RBmTadGacTTV )annUpI cñNj kanEterchGápl itpl  
 EdI KatRbmU )an b=Gs,ógGaharEdI Katman .

2>2 kar)atbgenAkúeBI Tkdak;

kskrkmAmanTmab; b=RbéBNITkdakRsUenAkúCRgk b=)av . edayBManpI nUkarykcitp  
 Tkdak; brikar nig karyl dgRKbRkan; kar)atbgkúkrmitd<sup>3</sup>sEtgRTU)aneKtmancbáHpl it  
 pl enahkúGMLúeBI Tkdak; . kat;)atbg;TadjenahmanTad 2 RbePTKWrimaN nig KINPaB .

2>2>1 kar)atbgCabrimaN

kar)atbgCabrimANetgbNpl mkBkarRChkúbB)av b=brikarnana nig edaysarkarsU b=kar  
 bñnj eGayxtedaystéRgnanadtCakNp st'sab nig stV t . kNpFMYsRsuGsBI 5  
 eTA 9 KILÁkam kNpEdI enAtamdú pñsRsuGsBI 3 eTA 4 KILÁkam nig kNp<sup>2</sup>sRsu  
 GsRbmaNca 1 KILÁkam kúmyqám . karRskTmñEdI bNpl mkBkarRsksnNm minKf  
 cat;TikfaCakar)atbgeLy .

## 2-2-2 kar)atbgKINPaB

kar)atbgKINPaB ekitman kō TRmgCaerch rihman<sup>3</sup>

- o karERbRbV BN'sm,ú -] > kareLgRkemAenRKabRSU b=kareLgBNeI OgénRKabGgá!
- o karERbRbV kin -] > BRkGBRbehreTACap!
- o karERbRbV rsCati
- o karfycHnUsarFatcBañ -karfycHnURbttGh nig vitamh!
- o karfycHnUKINPaBGgá nig KINPaB)ay
- o karekitmanCmSit nig
- o karfycHnUsmtPaBdMhénRKabRSUBC . I .

Caj k j ab; karERbRbV b=karfycHnKINPaBdEdI )anerobrabenHEtgekitmanRBm<sup>2</sup>Ká EdI tam Fmpta vak bNpI eGaymankar)atbgCabrimaNpgEdr .

kar)atbgKINPaBeFUGaybHBal CaxadI ;émønAel TtpSar . Ca]TahrN\_GtifCngayngbdi esFmñTij b=Tij kōtémofaknURSUGgáEdI )anrgkaryaybñaj . RKabRSUedI rgkarbñaj BñMnakstV EtgetmanI ayLMTAedaykaksñI nanaEdI eFUGayekheLgnUFU I b=kñvic kñhana . CagenHeTAeTot RKabRSUetgmanRbehag nig eLgBNRKemA . )ayEdI daRSU GgáEbbenahGacnngmankin nig rsCatBñ ¥.

edlm,ecosvagnUoBaätAjenaH PäkgarpsBpSayRtUetGnvtbğaj dI kskrgBpI RbeyaCnnana EdI GacnngTTV )anGñkarTTV ykeTAerBR)asnVfSaRspñEdI manerobraxagerkam<sup>3</sup>

## 2-3 karRKbRKgRKabRSUenAmmeBI Tikdak;

PäkgarpsBpSayRtUetGnvtbğaj nUbecReTSRcttkat;RKbRKg nig hal smñEdI pñ svutPaB dI RKabRSUedlm,ecosvagnUkarxatEbbemkanik -edaykarbHTgñ; enAmmeBI Tikdak; .

## 2-3-1 karRbmñ pI kñeBI dñmRtU

edlm,katbnñyeGaydI kRmitGb,brimanUkar)atbgedayGakasFatminI ¥ karRCñkñb; nig kar ERbHRKab; RSUKYEtRtU)anRcttkatenAkñkal evI a b=énAeBI EdI vamanGRtasñNmismRsb . karTkeGayRSUeLgTMj asenAkñERS sñerkamkarERbRbV énsñNm nig stññPaBbriyakas GacCamñ eh tññManénkarRCñkñb;nig kareRbHRsaRKab;-rñT11! .



*rbTI1 > karebHRKabGgaEdI BnitueXlj edayBnNrkhm -RbPBIRRI'*

GRTasMmSmRsbSrmabkarRcttkatEdI enAcenHBI 20 eTA 25 ° minRtmEtpI nUThpI  
 RSUXsbeNHeT bInpaEfMTaGeFUGayTTV )annUGRtaGgaxsBkarknpgEdr . RbshebRSU  
 RtU)anRcttkatenAeBI EdI vamanGRTasMmSsCagenH kskrGacngXlj faGRtaGgiedmEdI  
 TTV )anBkarkinmankarfych edaysarvtpanénRKabRSUEdI enAminTan;TM b= enAesbTik .  
 pkyeTAvij RbshebkskrTksUeGaysRCU KWFUGayvamanGRTasMmTabCag 15 °  
 enAkjERS I TPaBkjkarfychInUGRtaGgiedmkanerchNasEdr .



*rbTI2 > brkavasGRTasMmRKabFBaDatimychm*

kjkrNEdI BbaCrkbrkavasMm -rbTI 2' )an kskrKseRnceFkarRcttkatedayEpkeTA  
 eI I<sup>3</sup>

- o BNrbsRKabRSU<sup>3</sup> enAeBI EdI RKabRSUBI 80 eTA 85 ° manBN'dltcmly -CasBað  
 bBaak;favaTKbRkan; ehlyRKabRSUEdI enAepkxagerkaménkYst kjdMnakkaI dak;  
 emSang
- o cmhéfRkayeBI RSUecj pá <sup>3</sup>RbmaNca 30 éf¶
- o PaBrngénRKab; <sup>3</sup>RKabRSUKYEtmansPaBrng bInpinRSYenAeBI ykvaetAxam



*rbT13>kareLgBNel OgénRKabGgáedaysarkareLgkembénRKabRsunAmueBl smñ níg  
enAkñeBl Tkðak; -RpPBIRRI!*

**2>3>2 kare)akEbnCabonln; níg BñFñGaybHTgñxðñ**

kskrKYEtGnút{kare)akEbnRsuEdI RcñkatehlyCabonln; bñ eGayqab,tamEdI GaceFñan .  
kal NakNþbRsuRtU)anTkecal yñCaKñR RKabRsunngRtURbQmCamlystVñ stñsáb kNþñ  
Cmññig karekt,pñt . vakñGacññesheLgviñ EdI bNþñ eGayvaeRbñ ehly)akextñenAeBl e)ak  
Ebn níg enAeBl kñ . CamlyKñenah RKabRsuGaceLgBNRkemA ehlyRKabGgáEdI kñ)annñg  
eLgBNel Og -rbT13; . kardñRKabEdI mincg;)ankñGacññekñt maneLgpgEdr .

kare)akEbn bñkarRbeLHRKabRsuvecj BlññðgedayEbnññegçgKññaviFEdI RbestCageKbññtEdI  
kskrKYGnútþRbsñebKatçgeGayRKabRsuñmanKñNPaBxsbññt drabNaRsuEdI Rtñe)akEbn  
BññanbrimaNerchññ -kñmlyemag mññsSmäk,GacññgEbn)anRsuBl 10 eTA 30 KIL Ækam  
GaRsyñeTATamBñRsu kñmitTñsññm níg Tññþñ I Rsu; . kskrkñGacerbR)aseKaRkbl bñyan  
ynþpSg²edñ,ñBañkNþbRsu)anEdr -GRtaRKabRsuEdI TTVñ )anGacmanBl 200 eTA 300  
KIL Ækamkñmlyemag; bññþtagRbyññacòsvagnñkareFñGay)ak; bñkbRKabRsunAkññðñl -kñg  
ñ anþBaññ; . kare)akRsuñedayvayþñññgERKññab bñkþre)akGacññgFññankñññññeñl OnCag  
karEbn bñññGacññgFññGay)akRKabRsuñerchCagEdr .

RbsñebRsuRtU)ane)akEbnedaymasñ Rtñetcab,Garmññññfñ³

- o. GRTas\N\m\RKabRsU nig karEksRm\l mas\h\Gacman\T\B\l d\l d\N\l\karrbs\mas\h\ smt\Pa\Be\ak nig K\N\Pa\B\RKabRsU . GRTas\N\msm\Rs\bs\Rs\mab\kare\akEbneday mas\h\K\h\Acend\H\B\l 20 eTA 25 °
- o. kal Na\K\KabRsU\es\me\Bk\ kare\akEbn\ng\y\l\ eh\ly\Gac\B\N\l\ eGay\rl\ at\dac\sm\k\ Ggám
- o. kal Na\K\KabRsU\us\te\Bk\ kare\akEbn\Gace\F\G\ay\er\B\H\Rs\ar\K\abe\Rch
- o. c\ge\F\j\ t\al\ K\Y\E\T\R\T\U\E\ks\Rm\l\ eGay\vil\ k\ge\l\ ,\Ón\B\l\ 12\ eTA\ 16\ Em\Rt\k\g\m\Y\ina\T\l\ b\ R\ma\N\Ca\ 600\ C\m\g\m\Y\ina\T\l\ . e\l\ ,\Ón\vil\ e\l\ On\Cagen\H\ng\e\F\G\ay\RKabRsU\xt\txate\Rch\ eh\ly\el\ ,\Ón\vil\ y\l\ Cagen\H\Gace\F\G\ay\manen\A\S\l\ RKabRsU\e\ak\ b\ R\be\L\H\min\G\se\c\j\ B\k\Y\ .

### 2.3.3 karsm\tsm\Rs\B

tam\Fm\ta\ RKabRsU\Ed\l\ T\T\l\ )an\B\kare\akEbn\ man\l\ ay\L\A\edays\Rs\mam\ nig\ k\W\ick\l\l\ep\sg\2\ Ed\l\ K\Y\E\T\R\T\U\sm\te\c\j\ eGay\ )an\qab\;tam\Ed\l\ Gace\F\l\an\ en\A\k\g\ nig\ eR\kaye\B\l\ e\akEbn\ eh\ly\ eGay\ )an\R\ak\den\Am\me\B\l\ T\k\dak\; . RKabRsU\Ed\l\ s\at\Gac\T\k\dak\ )anedaye\Ca\K\C\y\Cag\RKabRsU\ Ed\l\ min\s\at\ . s\Rs\mam\Ed\l\ en\A\l\ ay\L\M\am\Y\Gac\Car\B\B\en\kary\ay\l\l\aj\ éns\T\l\l\ nig\ kare\l\g\ kem\A\ .

ks\kr\Gac\sm\tsm\RKabRsU\ )aneday\vi\Fray\ tam\T\m\ab\; b\ edaye\R\br\k\ar\C\h\Y\dl\Ed\l\ man\bg\aj\ k\g\rb\T\l\4\ .



rb\T\l\4\>karsm\tsm\RKabRsU\eday\vi\Fray\ b\ edaye\R\br\k\ar\C\h\Y\dl\Ed\l\ man\bg\aj\ k\g\rb\T\l\4\ .

## 2>34 karhal sm

enAeBI Rctt kat; GRtasNmRKabRSUGacsRtkjgcnaHBI 18 eTA 28 ° . sNmEbbenH man  
 kRmitxshS minGaceGaykarTikdakGacngRbRBitpTAeday sutPaBeT . karTikdakRsUesh  
 ngeFGayekltmanCmSit nig stVt . dbenH KWakarsManEdl RtUbnByGRtasNmEnah  
 eGayctmkenARtm 14 ° bTabCag edaykarhal sm -Ca]TahrN\_14 ° sRmabkarTik  
 dakRsUes,og 13 ° sRmabkarTikdakRsUBC nig 9 ° sRmabkarrkSaTikBCkjry<sup>3</sup>eBl yd!

eday sarfamas hsm(BManRtU) anyk mkeRbR) askjRbeTsenHenAeLy kskrcMacRtUhal  
 RsUrbsKateRkamkemef. GaksyeTAtamGRtasNmmedménRKabRSU rebobhal nig l kç  
 xGakasFatukarhal smEbbenHGacRtUkareBI BI 1 eTA 3 éf. edm, karBarkGayRKab;  
 RsUmanFU l nig RsbsNmLgvij RtUhal vaenAel sBtekASU b=kenH . KYBRgayRKab;  
 RsUedayecosvagkFGayvamankRmasRkasCag 4 sgEmRt edm, bFGayRKabRSUGacTTY  
 )annUkar smes sBV ¥ . KYvRtLbRsUerogral knhemag b=erogral emag . CakarsManEdr  
 Edl RtUsmtTil anhal eGay)ansit .

KYRKbRKabRSUenAeBI éftg; b=enAeBI Edl manéfKaxd eRBalfakareLgkempxsCag 43  
 GgSaes GaceFGayRSUgayerbH nig RKabBCEI gsUdl .

*bBaak; <sup>3</sup>edm, bnBy b=karBarmineGayekltman kareLgkempenAkjCRgk b=kEngTikdak; kskrKY  
 EteFGayRSUclRtCaksinbnabBhal smehly edayTikvaenAkjmbmKyry<sup>3</sup> mnnjykvaeTA  
 Tikdak;*

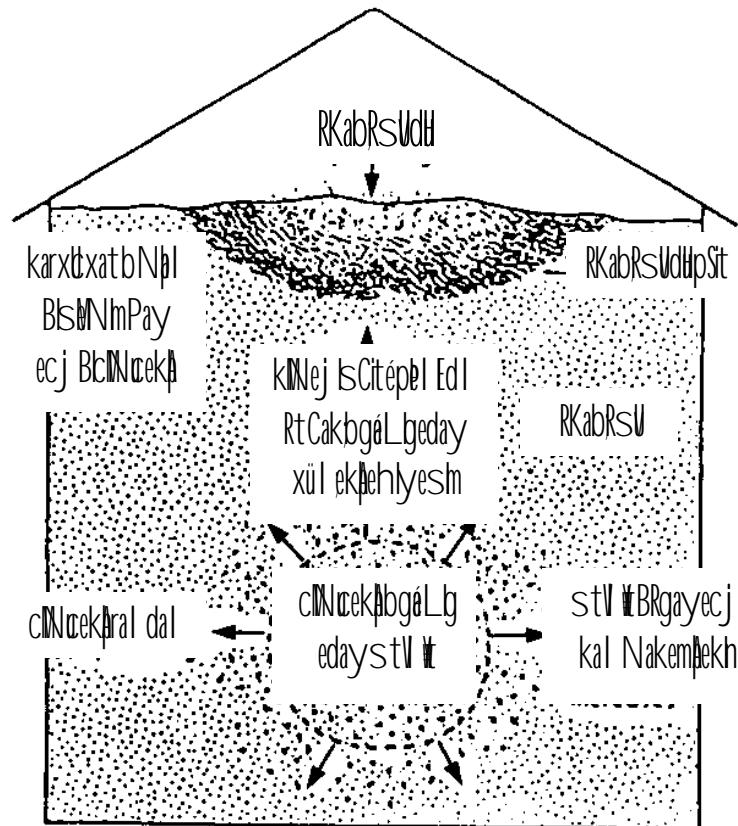
## 2>35 kNCæj s

karTikdakCaKtrkjCRgk b=brkarTikdakEbbRbeBNI GacngeFGayRKabRSURbQmCamYnig  
 kareLgclsnNménbriyakas eTAtamrdU nig eTAtamI kxGakasFatu . karERbRbll nU  
 GRtasNmGacbNpl eGayRKabRSUeLgcas;ehlyfychKINPaB .

Rbsinebkül enAkj kEngTikdakek ehlyclRtCakPam<sup>2</sup> vanj)atbg smtPaBkj karrkSasNm  
 ehlykNCæj lsngekltman . kNnej sGacngekltmanpgEdr kal NabriyakasenAxagkj nig  
 xagerkAkEngTikdakmansitNPaBxsKaxd . ]TahrN<sub>3</sub> samBadyKwAeBI Edl épE Baatj  
 xagerkAeLgkem b=clRtCak eTAtameBl evl aéf nig yb; .

ehtenH kNnej IselitmanenAkogkEngTkdakPaKerchenAEk,rCBadly nig BerkamdlU -CaBess enAeBl Edl CBadly nig dlU enaHeFGBonHEdk sgsl b=sBtekAsU ehlydNkej IsTaldjenah nngRskclmkel RKabRSU . kNnej IskZacngelitmanenARsTabxagel bNpténRsUkngGMLg eBl Tkdak; eTahbCaRKabRSUenaHRTU)anhal smHeGaystRKbRKanehlykeday . ehtkarN\_ enH ngeFVGayRKabRSUeLgesm Edl bNpl eGayelitmanCmPSt nig kardURKabEdl min cg)an .

kNnej IskZacngelitmanpgEdr RbsnebrRKabRSURTU)anTTV rgnUkaryaybldaj xdyBlsINak; stV  $\mu$  . kardkdeglinénRKabRSU nig stV  $\mu$  bNpl eGayekheLgnUkemA nig sNIm Edl Cahtbógayman : cNncékA :. enAeBl Edl : cNncékA : enHeLgkemAxs,Cag 40 GgSa es stV  $\mu$  nngBacrsenACit<sup>2</sup>enaH)an ehlyecheTpas;TeTArkkEngRtCak; bNpl eGay cNncékA : enaHecheTBRgayeTAKEngepSgeTot  $\rightarrow r_{T15}$ !



$r_{T15} > cNncékA$  nig karxtaxatEdl TakTgnana



## 236 kic̣arBarTḷ ngsṭkṆḥ

r)aḍkarBarkṆḥRṭUeT)andakeGaymanenAeḷIsrsṛ ḅ= beg̣Aḷ CRgḳ -ṛḅTḷ 6! edm, ḳḷGayva  
 eḶgcḷU eṬAḳg̣CRgḳ ḅ=ḳEng̣Ṭkdak:)aṇ . ḳṆḥṣḄṣU ehlykaṭḅḷaj̣ sm,k)aṿ nig̣ bṛḳaṛṬḳ  
 dakep̣Sg<sup>2</sup> ḅḷṇpạẸṭgẹF̣ḷGaỵṚKaḅṚṣUeḶg̣ḳx̣KedaỵṬkenaṃ nig̣ ḷaṃkṛbṣvaeṛcḥCag̣bṛimạṆ  
 Eḍḷ vaṣḷaj̣ enạHẹṬAẹToṭ . vaḳẒạP̣aḳg̣arṇaḍṃg̣Cṃḷp̣Sg<sup>2</sup> Eḍḷ GacẹF̣ḷGaỵḅḤBaḷ ḍḷ ṣx̣PạḄ  
 mṇṣṢ .



*ṛḅTḷ6>CRgḳEḍḷ maṇṚbḍaḅkaṛBarḳṆḥ ehlỵGacẹF̣ḷGaỵmaṇx̣ụ̈ḷ F̣ṃf̣aṭḅḳg̣g̣kaṭ;*

edm, ḷf̣bṣaṭḳṆḥ ḳsḳṛḲyc̣Bạṇq̣ạ nig̣ G̣nuṭḷF̣baḳG̣g̣ḅep̣Sg<sup>2</sup> . karẹṚḅR)aṣG̣g̣ḅGac̣ṇg̣maṇ  
 ṚbṣiṭPạḄEteṇAẹḄḷ Eḍḷ kaṛḅḷaj̣ maṇḳṚmiṭTaḅ . G̣g̣ḅḳṆḥmaṇẹṚcḥṚbẹPṬ ḅḷṇmaṇẸtṃyc̣ṃḥ  
 ṭṭbạṆḥEḍḷ ḅḅj̣ ṃx̣gar)aṇ ḷ ¥.

## G̣g̣ḅRṬg̣

G̣g̣ḅRṬg̣Eḍḷ bg̣aj̣ ḳg̣ṛḅTḷ 7 RṭU)anẹḲraỵkaṛṆfa)aṇḅḅj̣ ṃx̣garỵag̣ḷ ¥ edaỵḄmaṇP̣aṭ;  
 manṣuṭPạḄḳg̣karẹṚḅR)as; ehlỵmaṇPạḄsaṃBạḍḷ GacẹGaỵkṣkṛp̣ḷ itedaỵx̣ụ̈ḷÉg)aṇ .  
 ḅṇḷḅḄdaḳteṃḷg̣ nig̣ ḅịṇỵehlỵ G̣g̣ḅeṇḤḲỴṚṭU)anỵkẹṬAdakẹGaỵṃx̣ṛbṣvạẸbrẹṬAC̣Bạḍg̣  
 -ṚbỵṭḳḷGaỵḅḤ; ṛbg̣ ḅ= p̣ḳṆḥ ẹF̣lỵag̣NaẹGaỵḳṆḥg̣g̣kaṭḄẹṚḳamṣṇẹḅḳḳg̣cenạḤG̣g̣ḅ;  
 nig̣ C̣BạḍjeṇạḤ . RṭUẹF̣ḷGay)aṇR)aḳḍfạḄmanṣṚmaṃ ḅ= ṿṭp̣Sg<sup>2</sup>Eḍḷ ẹṬṣẸṬg̣ṃinẹGaỵḲṇḥ nig̣  
 sṇṛbṣG̣g̣ḅGac̣P̣aṭ; nig̣ ḅịṬC̣iṭṚṣḷ ḅḷ )aṇ .



*rðT17>GgþkNþRbePTRTg*

**GgþFg**

GgþFg -rðT18; káanl kN<sup>3</sup> samBadehlyRtU) aneKraykarN\_famanRbsitPaBxs; nig RtU) an ekeRbR)as; yagTU MU ay . edm, eFVa<sup>3</sup>

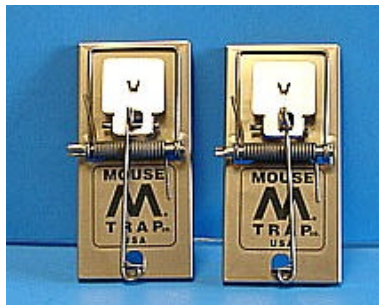
- eKRtUkarFgcnHRbmaNca 20 l Rt b=RkLFMDI Gacdak;Tik)an
- kbFg b=RkLenaHenAEk, rrsþ=kEngEdI kNþqgkat;
- ykeBatmlyEpokkat;gedmecj ehlyskI þsrésFMB=srésEdkEdI manRbEvg RbmaNca 1 EmRtcU . RtUeFVayNaeGayEpøBatenahGacvil )anedayRsl
- eFVGITbeGayEpøBatenahAcMNþI I þ b=srésEdkenah
- Bt:I þ b=srésEdkenahdðbgðj kjrb ehlysgávacU eTAKjdenAsgxagmatFg b= RkLenaHeGayCab;
- cak;TikcU eTAKjFg b=RkLenaHeGaymanCeRmARbmaNca 15 sgEmRt -mlytikknð;
- erogral ;I Rç RtUyknyeTAI ab b=bitPaB;CamlyEpøBatenah ehly
- RsgykkNþEdI FokcU eTAKjFg b=RkLenaHerogral RBik . GgþRbePTenH bþBj mægar)anI þðt kjraktexit .



*rðT18>GgþkNþRbePTFg*

### Ggbbvaypb;

GgbbRbePTenH -rbTI9; GacykeTAERBR)as;)anedm,cabkNp . KYEteRbvaBI 2 eTA 3 sRmab; dakmYkEng edm,eFVagNaeGaykNpminGacCanxusKnPrt; . kaI NaCanxusKEng KnGac PrrEtminvayCabkNp ehlyeFVGayvaGacep . edaysarfaGgbbRbePTenHmanerKafak; vaKf EtRtU)andakenAKEngNaEdI kbeq b=stEdI cBamminGacqgkat;)an .



### rbTI9>Ggbbvaypb;

### GgbbRbCVst

kgkal 3eT3xH GgbbCVst GacRtU)aneKERBR)asedm,cabstKNpTadrs; edayecosvagkar eFVGayvagab; ehlysyrl yecal kminI ¥ . GgbbRbePTenHKYdakenAtampbqgkatrbskNp KWhAcenHrnSb=sm, k nig es,ogGaharrbsva .

CakarsManEdI RtUdngfa kNpRchep . CamYng rbs; b=vtNaEdI fjb=EbksRmabva ehlykar ykGgbbEAdakecal edaymintemngAKEngfmyBI 1 eTA 2 s)ph\_nngFVGayI TPAbcab; kNp)anGacekheLg eRBahfavanngEl gep . dl eBl enah KYdak;temngGgbbGayekchtamEdI GaceFV)anedm,cabkNpGay)aneRch enAmmeBI EdI vaep . vFEbentHeQpHfa karcabkNp CaRkm KWhakarcabeGay)aneRchCagkRmitEdI vaGacbegtkbecA)an nig enAmmeBI EdI vaep El ghanmkCitGgbb; .

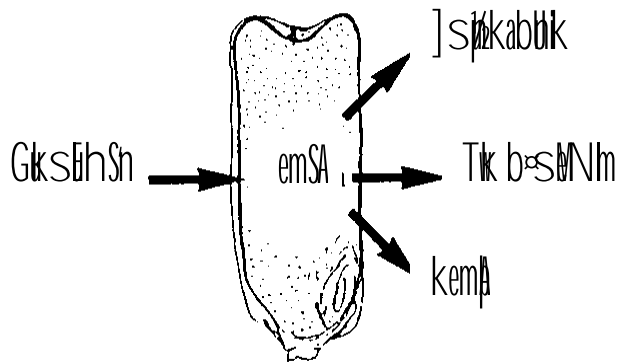
KYecosvagkBR)as;faEd edm,ismabstKNp eRBahfaekg b=stEpsgeTotGacRcLbu . mY vij eTot kNpEdI RtUfaEd GacnggabenAKEngEdI B)akngykecj b=B)aksmat ehlyeFV eGaymankinGaRkk; .

2>4 CeRms b= vFITkdakEbbfj

kskrGacseRmcerCIsersGvFITkdakRsu edaydak,CaKMrkjCRgk kj)av b=brkerTkdakEdI  
GacbitCit GaksyeTAtamesckRtUkarrbsKat; nig eTAtamsm<sup>3</sup>EdI Gacrk)an bInptag  
Rby%CamYngbBaananadtEdI manerobraxagerkam .

2>4>1 karTkdakCaKMr b=edaycakFar

CamYngvFenH RKabRSURtU)ancakFarcl eTAKjCRgk b=kjbrkerTkdakedaypal Etmg .  
vFenHmanPaBsamBaGaceFITA)anrh<sup>3</sup> ehlycNayGskm<sup>3</sup>BI kmptc . bInpkskrcaMac;  
RtUmankarRbgRby%Gay)aneRchedm,ItbsatnUkar)atbg; . CRgkEdI kskrFaberbitam  
TmabEdI eFGBeQIbnHbsSIdaGacngTTV rgnUkaryaybaj BIsNakstV t nig kNp .  
I kx%NbrkerTajenHerchEtBManI kN<sup>3</sup>smRsb EdI GaceGaysNhm nig st<sup>3</sup>ergGac  
eRCotcl )anyagRsv .



r<sup>3</sup>TI10>kardkdegInRKabFBaati

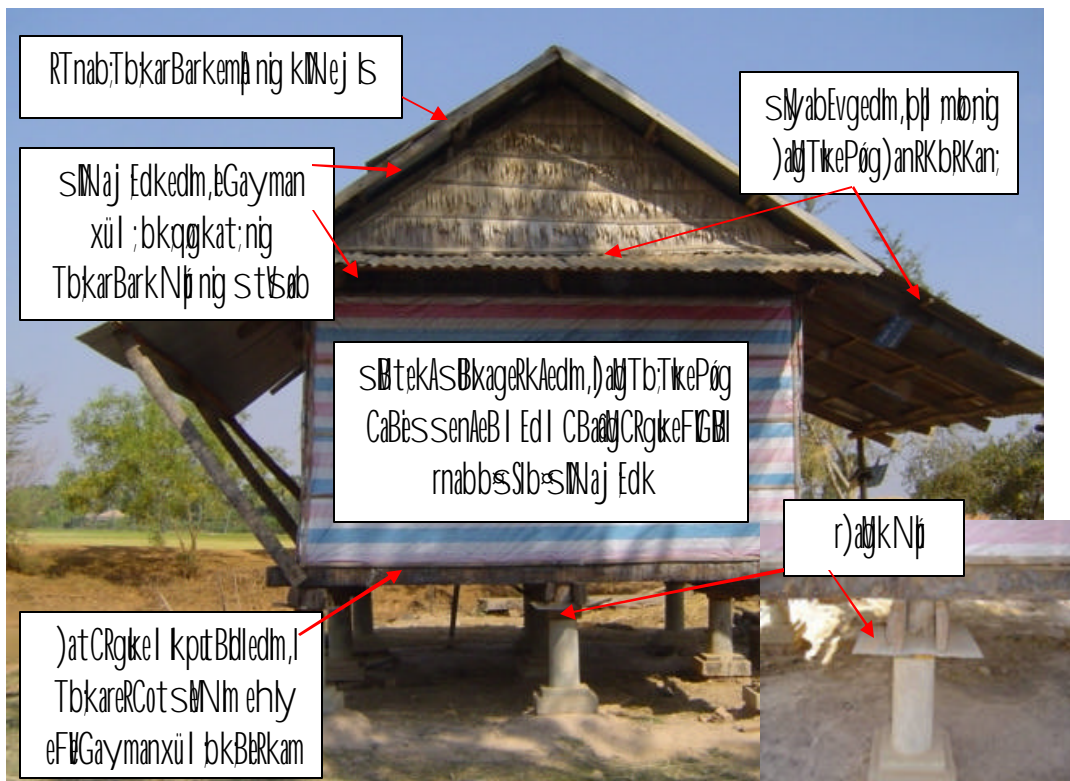
eday sarfaRKabRSUEdI kBgTkdakenAmanClit ehlydkdegIn vabgaGayman]spkabdik  
(CO<sub>2</sub>) k<sup>3</sup>CaTik nig kemp dEdI manbgaj kjr<sup>3</sup>TI10 . RbsnebBManxul fjb=BManxul bk;  
qgkatRKbRKaneTenaH RKabRSUkjKMrngeLgkempyagqabr<sup>3</sup> CaBessenAeBI EdI Gakas  
FatmansPaBekpehlyesh -sNhmriyaksxs; . I kx%NbrkerTajenHerchEtBManI kN<sup>3</sup>smRsb EdI GaceGaysNhm nig st<sup>3</sup>ergGac  
eGaymanPaBsmRsbbit sRmabkareklit eLgnUk tpeRgnanadtCastV t nig Cm<sup>3</sup>SitCaedlm .

karsagsgCRgk b=brkTkdakCakMlr

GakSyeTAtamR)akkasEdl kskrmansRmabclNay brimaNRKabrSUEdl RtUTkdak; ry<sup>3</sup>eBl Edl RtUTkdak; nig smär<sup>3</sup>sagsgedl GacrK)an CRgk b=brkTkdak; -rbTI 11 nig 12; Gacn(Rtv)ansagsgedayerRbR)assmär<sup>3</sup>sINgEdl manl kN<sup>3</sup>smRsb dltCa<sup>3</sup>

- o edlm b=fnab bSSl
- o kbeOl
- o eQGarfjb=QEdl Faberbrtchly
- o skkNp s,Ü b=smär<sup>3</sup>RsedogKä
- o hRbStngt\_nig
- o sINaj Edk ebGacrK)an .

edaysarfassgisl bnHEdk nig sBtekAsUBManPaBsmRsbSRmab;l kN<sup>3</sup>GakasFatu ehly eRchbgäGaymanbBaKlNaj Is KYEteRblvaeFCaCBaGxagerkA b=KkanEt)adjedm, karBarTikePög CaBessenAeBl Edl CBaGCRgkeFGBlrnabbsSlb=sINaj Edk .



*rbTI11>CRgkEdl l Rt mRtUmly<sup>3</sup>Gac)adjTbsINm stkNp nig stIsab RBmTajefFGay manxüI bkqgkat; -RbPBAQIP;*



*rbTI12>CRgkEdl / hlyEbbeTot*

*-sthBhitüemll r)atkarBarkNjenAcenatHbegal srsr nig )atCRgk!*

edlm, eGaymanxül bkkej cU RKbRkan; ehlyGackarBar)anCamYngstkNli nig st'ab  
 CRBadlyCRgkGacnyRtUsagsgedayekBR)assMaj Edk -rbTI 13! bæeRKOgsMNgEdl Gac  
 rk)anköPthidltCarnab bRbdis b'sSlb=kleQCaedm .



*rbTI13>CBadlyCRgkeFGBLS Maj Edkedlm, eGaymanxül bkqgkatRKbRkan; nig  
 edlm, karBarTbmineGaystkNli nig st'abGaccU )an*

### Titatsing:

PikgarpSBpSayKYEtENnalmSkreGayeRCiserIsTitatsingCRgikenAEk,rpH edm,bayRsV Gnurtb  
kicRarTikdak; ecj cU EfrkSa nig karBarkWGayeKI t . TitatjenahKYEtxsEdI BWFGayman  
Tikdk; . dhg nig manRckecj cU eTAdI piGacnngsRmV dI kardikCBaH .

### TMM

CRgikGacmanragmU b=bhRCg FMB=td GaRsyTeTAtamkareRCiserIsrbskskr kmadBI kmj  
EdI man nig brimaNRKAbRSUEdI RtUTikdak; . Ca]TahrN\_CRGkEdI manTMM2 x 2>5 x 2>5  
EmRt -TTg x beNpy x kBs,sabCBaH; GacTikdak;)anRSURbmaNca 3 eTA 4 etan .

)ateRkamrbsCRgik KYel keGayxsptBdRbmaNca 6 tik eTA 1 EmRt edm,karBarmineGay  
sWnmBbhqcl eTARSU nig edm,eGaymanxul bkqgkat;)anxH . KYeqeFGaymanRbeLah  
EdI mansnHrij bibeckenAng)atCRgikRtgkEngNamyedm,bayRsV bgdykRSUecj .

### I kN<sup>3</sup> nig kareFGaymanxul bkqgkat:

karsagsgCRgik b=kEngTikdakenAerKampH erkamedmeQI edaydakeGayvamanbeNpytam  
TisI ic-eklt GacCYkatbnfykemEdI bgelgedayRBHGatitu . smabdWU EdI I yecj BI  
CBaHlyagtic 1 EmRt Gacpi CambdI CRgik b=kEngTikdak; ehlyGacCYkarBarTikePogmin  
eGaysacdI CBaH .

kardakeGayCRgikRbQmCamlyTisxul bkeFGayekltmantu uPaBkemA nig xul bkqgkat;  
)anesU fEdI GacCYkatbnfyUkaryaybHaj BismNakstv tceRg nig kINCaes . rihCa  
mlyngkareFgnamlysmatCarbcaM kareFGaymanxul bkqgkatRKbRkanGacCYrkSaKINPaB  
RKabRSUeGayenAxS;I edaymincaMaceRbR)asfadu b=sarFatkmepSg<sup>2</sup> . karbit)adRbeLah  
CBaHjenAerKamdWU -edayeRbR)asrnabbsS b=sINajEdk; GacTbsatmineGaystIsab  
Gacecj cU )an .

kskrGaceFbdanenAerKamdWU -Ca]TahrN\_enAeBI EdI dWU RtU)ansagsgeLgedayEdk  
sgsI; edm,katbnfy\TB I enkemPRBHGatitu . bfinp BdanGackayCaCRmkd3/4#bssstteRg  
nanaehlymaneBI xH GacbgaymankarI Makkjkar smat .

RbsnebGacmanePógkóGMLógeBI Tikdak; KY)adCRgkedaysBtekASU-bínítVecosvagkarRKb  
)adhrht CaBessenAeBI EdI RsUmanGRtasNNmxs;Cag 13 °;

kardakRsUcU

edlm,katbnRynUkarxat b=kar)atbgEdI bgáLgedaykemA sNNm nig stV Pákgar  
pSBpSayKYENnalmSkreGayGnvtbUvFITadLayxagerkam<sup>3</sup>

- o smátral smár<sup>3</sup>brkarSRmaberBR)as;TadGseGay)ansátenAmmeBI RbmU pI
- o bitPít kEng Tikdak;ehlydak eGaymanr)adTbsttérG
- o eFúGay)anR)akdfarKabRSURtU)anhal smá nig sáitRKbRKanmmngykeTATikdak;
- o TikdakRSUfedayELkBRsUcas; b=RSU ípSgBRsUEdI )anrgkarbplaj
- o TbsátkarqgénssttérGBCRgk kEng Tikdak; BSRmam b=TKxkEdI enAEk,rxag
- o bMatec j nUGPEdI GacCaCRmkénssttérGdlt;Carnsb=sámerbHepSg<sup>2</sup> -edaybitPít ;
- o CúCu kEngEdI )akebk b=dxatCabónán;
- o smáitCRgk b=kEng Tikdak; nig brevNCMij eGay)anCarbcalhig
- o rkSaeGaykemA -sitNPab; nig sNNmenAkóCRgk b=kEng Tikdak; mankrnitTab  
bít tamEdI GaceF)an . kskrKYskbBgbssI b=bB;Tik b=bBgeFGBISINaj ;  
EdkEdI manrnshogayagerchRKbRKan; cU eTAKóKMrRSUBeI bteRkamedm,bGay  
xül ekEdI enAEpikxagerkam b=xagkóenKMrGacsatec j eTAerKAtammatbB;g)an .

KYBnitüemll CRgk b=kEng Tikdak; nig RSUeGay)anCarbcalM-yagehacNasmgkóymys)ph;  
ERkgmanstV b=bBáanaEdI bgáGaybHBal dI KINPaB . RbsnebsegteXlj faman  
:cMúcekA : KYeteFVaeGaychRtCakPamtamEdI GaceF)an edayeFúGaymanxül bkqgkat; .  
kókrNEdI segteXlj mankaryaybplaj BSRnakstV CMYseGaykareBR)as;fáBU b=sar  
FatKhepSg<sup>2</sup> kskrGacngkMatva)anedayvFCVsaRspnig vFankarNCRmH . CamYvFITadjenah  
kskrRKanEteRbsRtUFmCatí -dlt;CasarFatUFmCatEdI BKvaminCU citp b=RTaMT CamYmin)an  
stVdI sBKvaCaGahar nig )arastepSg<sup>2</sup>; káitCaGgb; b=erCiserbBORSUEdI mingay b=  
mínsUrgkarbplaj . vFepSgeTotman<sup>3</sup>

- o karcakRSUhal erkamkeméff
- o kardakeGayRSU b=CRgk b=kEng TikdakrgEpsgBplaj)ay



- o karb... Gayman EpSgEdI dtedayerbems b=ermchmGacedj stV #ecj BRsU)an yagqabr h s b in pa Gace F # Gay b H Bal d l rs Cat Rs U Gg a b =) ay .

kskrGacyksarFatopSgeTotEdI smab; b=bnByel ,OneFtI naénstV #eTAdakkjRsU dt CaepH FU TfbcI na -FU bRkYsRkchm FU bkdab=k)ar . I . ; nig dkSacRkab;td . edaysar fatRmUkarénsarFatUajenHGacmanekch vaGacngRtUeRb)anEtsRmabbrimaNRsUtictt -dtCa karTkdakBC; EtbaNH .

Kycosvagk... sarFatukÇatEdI manCatBul b= I GxajCamYRsUEdI TiksRmabkarhbck rbsmns stV . eTahCaEbbenHkp sarFatUajenHGacmanRbsitPaByagxsxskj karrkSaTikRsU BC .

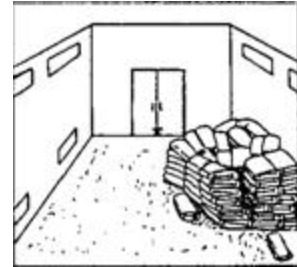
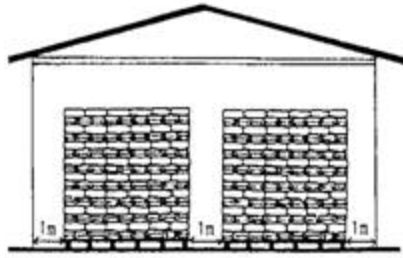
I amkstBManRbsitPaB nig GnamyeT ehtenHKYecosvagk... asvaedm, karBarRsU .

### 2.4.2 karTkdakkj)av

karTkdakRsUk)aveFGRkeca b=sés nLgCaKMr CavFEdI eF#GaycMnaytic -)avmYGac mantémBl500 eTA 1000 eroI ; manPaBgayRsU k)karGnutp\_nig RkbRkg . binpenAerKam I k... GakasFat... GRTasNMénRkabRsUenAk)avTajenHGacngERbRb) eLgctd edaysarf... NmbriyakasGacerCotcl eTAKjRsU)an . kemp... Nmbriyakasxs; ngeF#GayRkabRsUEdI enAk)avrgkaryayb)aj BstMnakstV # eTahbCaRkabRsUenHRtU )ansm#eGays... RkbRkanenAmmeBl Tikdakehlyk)day .

### Gnsasnmlyctm<sup>3</sup>

- o erob)avRsUeGayXatBCBa... enAel kprTRm b=kMNI epSg<sup>2</sup>EdI manI kN<sup>3</sup>Rbhak; RbEh I eF#yagNaeGaymanRbeLaHRkbRkanedm, eGayxüI bkqgkat; -r)TI 14 ;
- o kpr b=kMNI TRmKYmank... RbomanCa 1 tik Bbl b=Bl)atCRgkedm, eGayxüI Gac bkkatBerkamKMr)av . eF#ebobenH k)gagaymanPaBgayRsU k)karRt#Britüeml ERkgmankarb)aj BsttkN)pgEdr
- o edm, k)GayvagaydV rI MKYerobKMr)avRsUeGay)anRtmRtU -r)TI 15; edayecos vagk#Gayvamank... sxsCag 4 EmRt . RtUdngfa )av b=f)g)askmanPaBrGil gayeFV eGayKMrGaydV rI Mag)avRkeca .



*rbT114<sup>3</sup> karerobKNr) a/RtmRtU nig miRtmRtU*



*rbT115<sup>3</sup> karerob) a/CaCg*

**243 karTkdakkgbrkrbitCit**

karTkdakkgbrkrbitCitmineGayxül (GaceRCotecj cU )an GacCakarTbsät d% ENBaHstV céRg nig sNIm edaymineRbR)as,sarFatKml.

karTkdakbitCiteFUGayfyctlnUkrmitGksEhSnEdl RKabRSU stV it nig pSitrUkarSRmab; kardkdegm nig l t l as; ehlypöyeTAvij vabeglnkRmit]spkabbk . GksEhSnEdl enAsI ; kgbrkrRbePTenH mankrmitRKbRKansSRmabEtrkSa)annUsmtPaBdlNhrbsRKabBC bñmñ GaceGaystV itGacenArs; bæeFKarbnBC)aneLly . eh tenH karPiteGay)anCitRtmRtU mansar<sup>3</sup>sMan;Nas; . Rbshebkskrhal smRKabRSUeGaymanGRtasNIm 14 ° bæ TabCagenH RKabRSUedl TkdakedayvFenHGacmansutPaBkgry<sup>3</sup>eBl ydCag 1 qam.



Fig nig brkørEd I Gacbi(Cit)an



fg)ask Super bag



fgbi(Cit)NH 700 eTA 1300 I Rt



Cocoon b=Volcani cube Ed I plk  
RsURck)avehly)an 5 etan

*rbTI 16<sup>3</sup> brkørbi(Cit)mlychM*

brkørSRmabkar Tikdakbi(Cit)manrbrag nig TmMss<sup>2</sup>Kä -rbTI 16; . vaGacCaFgyeRbg Ed I ek  
erBehly cINuBI 20 eTA 200 I Rt rhtd I (CaFg b=brkør)askEd I mansNansaly allhig tème  
xsEd I RtU)aneKpl it I k; . )askRbePTepSg<sup>2</sup>GacTbcBalkareCóténxül ; nig s(NM)an  
køjRmitxs<sup>2</sup>Kä . RkLEkv FgC½ PVC nig fgEd I manRsTabGal ymj thGacTbsát;)an  
yagl UkareRCots(NM) . ekkZactermob)avRSUFmptaenAkøjbrkørbi(Cit)mlychM)anEdr .

témbsRbBwTkdakRbePTenHERbRbVl eTAtantémFg b= RbGbePsg<sup>2</sup>Ed I eKerBehly -]Ta  
hrN\_FgsaldcINu 200 I RtGacmantémBbmaNca 8 Ban; eTA 2 mUerol ; . RbBwTkdak;  
EbbBaNCkmpmantémødm -éfaj ; BI 20 eTA 40 mUerol sRmabRSU 1 etan . CamlyngGayu  
kal ekr)asRbmaNca 10 qälmannyfavamantémBbmaNca 2 eTA 4 mUerol sRmabkar  
TkdakRSU 1 etan køjryeBl 1 qälm

fg; Super bag RtU)aneKpl iteLgedm, bGayGacRckRSU)anRbmaNca 50 KIL Bkam . eKac  
pl itvaeGaymanTmMtd b=FMagenH eFCafgrckpäl ; b=edlm, bakRTabBkøj)avFmpta . eKac  
ngyerbva)aneLgvij RbsnebvaBmandacFifFay b=rEhk . rbTI 17 bgäj BlvFITkdakRSU  
køj)avenH Ed I dak, CaRT nabBkøj)av)askFmpta .



1> dak,fg; Super bag  
CaRTnabBKjfgFmpta



2> RckRKabRSUEdl s#cl  
3> bnSatxül ecj ehlymll matfg;



4> btpmat,fg; ehly  
cgvaedayekASllkas; b=st

**rbTI17<sup>3</sup> vFRckRSUTkkjfg; Super bag**

RkLeFBUNdkGacerBcabrkerbitCit)anEdr . edm,kMGaysWNm nig stll itGacerCotcl )an  
RtURKbvaeGayCit ehlyl abfänGayrel agTajkjTajkerKA . edm,bFllGayR)akdfa brkärenH  
manPaBCit\_ eKGacykRkmñ xøj eka b=kavslü kgeTAI abenAmatRkLenaHmmeBI RKbPit .  
karykRkNateTARCI kCamYRkmñekñ ehlyykeTArnll matRkL kZameFüa)ayCYbitRkL  
eGayCit)anEdr .

- karRbgyRby%CaBëssRtUETmanCamYnygkareRbR)asbrker b=RbBkSbobenH<sup>3</sup>
- o RtUl agsmñteGay)ansñtnUFG b=RbGb;TajLaymnygykvaeTAerBR)as;
  - o RtUdakkMGaybrkeratjenarTU b=rgkemñeFp=RbPBkemAGpSgeTot edm,ecosvag  
karekitmankñejls . sWNmGacmancI naBerkamelgeTAel enAkj brkerFARbsñ  
eobrkerenaHminRtU)andakkjmb; . Bñansm,k)av b= Fgy b= RbGb;NaEdl Gac  
karBarRKabRSUBNTBI rbskemñ)aneLly . sRmabkarekheLgnUsitINPaB 5 GgSa  
es ClitrbsRKabBDRSUgacngRtUkatbnByeGaycllGsBakkNpl
  - o KYecosvagkarekbitFgy b=brkerTkdkak; . karekbitGacbNpl eGayGksñHsn  
eRCotcl eTAKjbrker)an . stll mYcMñGacecaHTM HRSTabes,ag )ask)an
  - o RbsinebRSUminRtU)ancakeGayebj brkerFuntt xül Edl enAEpkxagel Gacmanerch  
RKbRKansRmabkardkdegñrbsstV #
  - o brkerTkdkakFnFEdl eKpl itl kkjgl kN<sup>3</sup>BaNCkmp-dtCa Volcani cube Ca edm;  
Gackatbñaj )anedaykNpñ . ehtenH RtUTaj snjvaeGaytyg ehlyél l keGay  
manRbeLaHTñhrenACMj vaRbmaNcakññEmRt .

2>5 pl cMj GkarkEkl m#

karTTY ykeTAGnutpUbrkerEdl )anEkl m#nig vFankarN\_IbsátepSg<sup>2</sup>sRmabkarTkdakRSU  
CakMr k#)av nig enAk#brkerbitCit Gacp# nUpl cMj dl kskr .

karvPaKCarnd<sup>3</sup>amBamly Edl bg#j eGayeXij nUpl cMj GkarkTTY ykeTAGnutpUbecR  
eTsdtdEdl )anerobrarmkenH sRmabry<sup>3</sup>eBl 5 q#lmanenAk#taragxagerkam . karvPaKenH  
)anEpkeTael karsn#mlycMhdtteTA<sup>3</sup>

- RkabrSUrtU)anpl itedaykskrp#l Edl mannyfaKatBMMNayR)akedm,Itij va
- manbrimaNRsUcMh 3 etansRmab;Tkdakerogral q#lk#ry<sup>3</sup>eBl 5 q#lM
- kar)atbgbrimaNmanRbmaNca 5 ° CamlyngkarTkdak,tamTm#b; -edaydak#k#  
CRgk b#rck)avehlyBManvFankarN\_Ibsát,Gf#abG#; nig 0 ° CamlyngkarGnutp\_  
becR#TSEkl m#
- RSUtagSRtU)anl kykR)akenAerkayeBl Tkdak;
- edaysarfarsUEdl Tkdak,tamvFifmanKINPaBxs;Cag vaGac l k)ank#t#m# 500  
erol k#mlyKIL #kam KWI 00 erol #f#CagRSUEdl )anTkdak,tamTm#bFm#ta
- CamlyngkarTkdak,tamTm#b; kskrcM#ayedmTutict#edm,Isagsg; b#GacerBR)as;  
sMNg; b#brkerEdl KatmanRsab; . b#n#KatEbrCacM#ayGSR)akerchedm,Itij brker  
-dtCasm,k)avCaedm; mkCM#eGaykarxt#xatEdl bN#l mkBkt#p#eRgnana
- CamlyngvFif#kskrC#NayGSR)akedmyagerchb#dt 30 m#erol edm,Ekl m#CRgk  
Edl KatmanRsab; b#k#edm,Itij brker b#rbsrbrsRmaberbk#k#karTkdakepSgeTot  
-dtCaTij F# fg; b#brkerbitCit; ehlycM#ayGSR)ak,ticCagFm#taedm,Itij b#  
C#Cu brkerEdl xt t,ivFankarkarBarnanaRtU)anRbkanyk
- karTkdak,tamTm#bRtUkarC#NayR)akG#; 35#000 erol edm,EfrkSa nig C#Cu  
RbcakM#EkarTkdak,tamvFif#tUkarR)ak; 20#000 erol
- CRgkRSUf#GacerBR)as)an 5 q#l#daytRm#reGaymankarC#Cu tict#
- CamlyngvF#s#f#kskrRtUcM#ayeBl evl a nig km#yBl km#rchedm,Isagsg; nig  
Gnutp#FankarepSg<sup>2</sup> .

*karPaKesdléc@ karTkdaktanTmab;nig tamvFIsaRslfjküry³eBl 5 qäll*

BBNha	CamYkarTkdaktanTmab;			CamYvFIsaRslfj		
<b>cINU</b>	<i>brimaN</i>	<i>éfÉkta</i>	<i>éfösrö</i>	<i>brimaN</i>	<i>éfÉkta</i>	<i>éfösrö</i>
	KIL.Ökam	erol / KIL.Ökam	erol	KIL.Ökam	erol / KIL.Ökam	erol
I kRSU	14,250	400	5,700,000	15,000	500	7,500,000
	<b>brimaN</b>	<b>éfÉkta</b>	<b>éfösrö</b>	<b>brimaN</b>	<b>éfÉkta</b>	<b>éfösrö</b>
<b>karcMlayCa)ak;</b>	<i>qäll</i>	<i>erol /qäll</i>	<i>erol</i>	<i>qäll</i>	<i>erol /qäll</i>	<i>erol</i>
sagsg;nig smär³	5	30,000	150,000	5		300,000
karCMsbrkaxd	5	30,000	150,000	5	15,000	75,000
smär³edm, karBark tþcéRg	5	5,000	25,000	5	5,000	25,000
sröR)akcMlay			325,000			400,000
R)akenAS I >erol			5,375,000			7,100,000
	<b>brimaN</b>	<b>éfÉkta</b>	<b>éfösrö</b>	<b>brimaN</b>	<b>éfÉkta</b>	<b>éfösrö</b>
<b>karcMlayminEmnCa R)ak;</b>	<i>éf¶</i>	<i>erol /éf¶</i>	<i>erol</i>	<i>éf¶</i>	<i>erol /éf¶</i>	<i>erol</i>
kmald)Bl kmþ				20	4,000	80,000
témösrö>erol			325,000			480,000
R)akenAS I >erol			5,375,000			7,020,000
R)akenAS I > erol qäll			1,075,000			1,404,000
R)akcINU Edl ekh eLgsmabRKVsar erol qäll						329,000

*\* kmald)Bl kmfdl kskrRtUcMlaybEnñ berchCagmmedm, GnuthvFfj*

ditEdl )aneXij rcmkehly karTTY ykeTAGnutpWvFITkdak;fu manRbsitPaBesdkeSRmab;  
 ry<sup>3</sup>eBl Evg . kgy<sup>3</sup>eBl GnutpWvFITp5 qamkskrEdl manRSUTkdak; 3 etankgmyqamGacrk  
 b=sn(SManR)akRbmanCa 33 mWeroI erChCagFmpta .

edayELkBl chlNj xageI enH pl chlNj edaypbl Edl kskrGacngTTY )anpgEdr Camly  
 ngkarTTY eTAGnutpWvFIsarsfjrhman<sup>3</sup>

- o RKabRSUenArkSa)anBNsm,ü nig kinl Edl Edl bBaikFavaBManTTY rgnUkarlxat  
 edaysarsNhm kemp nig skmPaBbWaj epSgeTot
- o edayELkBlkarRskchTmEdl bNpl mkBkarRskchUGRtasNhm Gacektman  
 nUkar)atbgbrimaNticTcbNñH
- o RKabBCRSUGacenaAmanGrtadNHxs;Cag 80 ° eTahbCaTkdak;)an 1 qamhlykeday  
 Edl enH)anescklfakskrGaceRbR)asRKabBCGs;ticCagFmpta -Bl 80 mk Rtm 40  
 KIL kkmkgyhhta; ehly
- o kin nig brisanGarkkEdl bbgalgedaystteRg nig CmSit Edl GaceFHGayman  
 eRkaHfakdl swPaBmnisS GacngRtU)ankatbnly ehlydakeGayenaedayELkBl nA  
 dan .

### 2>6 \TBI eTaeI brisan

kareRbR)asnUbrkarfu edayrhnTalyFankarkarBarfmana R)akdCaGacpI nUpI I KagEpik  
 brisanmlychm . tamry<sup>3</sup>\TBI rbsvakgkarkatbnly b=TbsatnUskmPaBbWaj rbskth  
 ceRgnana kskr nig mnisSTalyLayEdl rsenACitxagCRgk b=KengTkdak;GacTTY )annUxül ;  
 Gakasbristšnig briyakasrsenAsit)at RBmTalymanGnamlyerChCagFmpta . sMan,CagenaH  
 eTaeTot RKabRSUGgngpI nUsutPaBkanEtXsdI karhWckTalyrbsmnisS nig stV.

3> eKaI karNENnaKjgkarpSBpSay

3>1 Epnkarkargar

3>1>1 karkNt;témEdI RtUcNay

skmpaB	Ékta	brimaN	témøay	témørb
ksagEpnkarsmør <sup>3</sup> nig vFI	éf¶			
sakSfGnvtþ_				
kNt;TKEng nig eRCiseris	éf¶			
kskrclU rñ*				
erobclnig catEcgral smør <sup>3</sup>	éf¶			
brkarEdI caMac;				
eFkarGnvtþbgäj enAeBI	éf¶			
cabepþTkðak;				
TivaRS -erogral ; 3 Exmp;	éf¶			
epSg <sup>2</sup>	éf¶			
srb				

\* *chl héf¶Jan,spnedm,GnvtþUkarENnaKjgEksarenHsRmabkEngmYEdI mankskrclU rñBI 20 eTA 25 nak;*

3>1>2 GkKaNT

GkeroberogÉksar TIP enH kmuFI CAAEP naykdapSBpSaykskmunig sðok b=GgkarepSg eTotEdI kNgbBj kargarEpkRSavRCav nig GPiDAnkskmugacpþ nUkarCYKaNT kjkrNEdI RtUkarÉksarpSBpSay karGnvtþbgäj b=karBnül ;EdI manI kN<sup>3</sup>I mñCagenH .

3>1>3 eynd½

kskr b=GkRKbRKgRSUePTRsmanI kN<sup>3</sup>smRSbnig TTV )annUkicShkar edaysarfaCaTØTA KatKWaGkRKbRKgskmpaBnanaEdI manTmak;TmgdI kicRarpHsEm,g edayrñTajkicEfrkSa brikarsRmab;TkðakRSU nig RKabRSUpg . karGnvtþedayeCaKCYnUÉksarENnaHh Gacnig RtUeF#Gay)ansermcedayRsp nig busEdI clU rñTajGs; ehlyGacEsþeGayeXlj CakEsþ tamry<sup>3</sup>ClPaB sãPaB nig R)akcNNU kanEtXsénGkEdI clU rñ nig rbsRkmRK'Sarkat; .



edaysarEtmankarU rhrbsRskjkcRarenH karcatEcgeGaymanPakgarpSBpSay nig Gnutp\_ bgaj ePTRsKYEtRtUcat;Tkfamansar<sup>3</sup>sMan; .

### 3>2 vFsaRspSBpSay

kskr nig GkRKbRKgRsUPakeRch EtgTkdakRsUrbsKatenACit b=Ek,rxagpH . GaRskyehtenH vaCakarsManEdI RtUcatEcGnutpUkmpFpSBpSayenHenAkjPthCamYngRkmkskr EdI mankarcabGarmN\_.

edlm,eGayyl )ankanEtc,as; nig edlm,bgaj nURbsITPaBenkarTkdak;tamvFepSg<sup>2</sup>eTAel kar )atbg; nig kNPaBeGay)anCakEspg yagticbHtRtUerCIsykvFITkdakeGay)an 2 . I Mab; nig EbbbTEdI RtURbkanykkjkarerobcM/Gnutp\_nig vaytemkmpFpSBpSayEdI )anGFb,ay kjEksarenHmanerobrab;l mtdt teTA<sup>3</sup>

### 3>2>1 kareCIsersTkEng

edaysarfEbbbTenHmanPaBsmRsbsRmabesHtRKbtWnkjRbeTskm&a BmanI kN<sup>3</sup>vni ckyBessNasRmabbBaakBkareCIsersTkEngelLy . bfnpvaCakarsManEdI RtUerCIsersTl taljGnutp\_bgaj enRtgkEngNaEdI kskr b= GkRKbRKgRsUepSgeTotgayRsV ecj cU edlm,eFkarsegat . RbsnebGac TkEngenaHKYetenAEk,rpU b= TsaFarN<sup>3</sup> edlm,eGayman I kN<sup>3</sup>Tak;Taj karcabGarmN\_BmnisSTalLayEdI eFmNrqgkat; kgnyeFVGaybecRvitua nig karyl dgenHGacngRtU)anEckrMl k nig BRgay)ansBvb=erchkEng .

### 3>2>2 kareCIserskskr nig karerobcM

edlm,katbnRynUkarCINayedlm,pSBpSay bfnpedlm,eGayTTV )anRbsITPaBxsGMFnFanEdI )anerBR)as; PakgarpSBpSayKY<sup>3</sup>

- o eFkarkt;smAl ; nig eRCIserskskr b= GkRKbRKgRsU EdI mankarcgdygcyl ; echshkar nig manbTBesaFn\_edlm,Gnutp\_kcRarenHrMka . edaymankicShkarBKat; PakgarpSBpSayRtUetKitKberCIsersvFsaRspGnutp\_bgaj nig vFITkdak; erobcHl ; sm<sup>3</sup>brkarTalGsEdI RtUkar catEcgeGaymanRkmGikcU rh rhEdI karsagsg; CRgk b=EngTkdakRsU

- o. pñ d l kskr b=GlkRKbRKg -pñkar! TadjenaHnUrK0geI kTikcitxñledm, eGayKatman KmIt pñepñ nig mancit, gcu rñh . eRK0geI kTikcitñnahGacCaR) akkasmycñh sRmab; Tij b=Cavsmā³sñNg; smā³ b=brkarTikdakddCaFñ b=es, agbitCitnana dñEdI )anerobrabbkagedm bmyCaRSU b=GgñEdI )aneRbR) askñvFTikdak; Tabñ Layenañ nig
- o. GeBañ b=shkarCamlyGaCaFrEdndI nig GgñkarepSgeTotEdI kñgRbtñtñskmpPaB rbseKñTisedA b=visñyRbhakRbEñI KäenAkñtññ; .

3>3 karrñcñNkBsñNakkskr nig GlkRKbRKgkarTikdakRSU

kskr b=GlkRKbRKgTadjenañKYEtpñ nñTñtabñ nig RKabRSUEdI RtUrRbR)as; .

CabñpTAenñ KñvñFñsñspFñBñsaFn\_ b=karGñutñpñgñj EdI PñkgarpSBpSayKñFñkarEsñyñl ; edm, eGaymanI TñPaBñGacBññl ; nig bgñj edm, bsermc)annURbsñtñPaBxskñgkarGñutñpñ\_ bñññbññl b=skmpPaBpSBpSayepSgeTot .

3>3 BñsaFn\_ nig karGñutñpñgñj

3>3>1 cññgeCñ karTikdakRSU

3>3>2 TKEng>>>>>>>>>>

3>3>3 ekal bññg

edñ, kññt; nig eRbobeFobñURbsñtñPaB nig \TñI éñvñFTñkakepSg²eTAel kar)atbg; nig KññPaBRKabRSU .

3>3>4 vñFñsñsp

ry³eBl ³ 6 eTA 12 Ex cabBl>>>dI ; >>

cññhsa ³ 2 b=3

bcññ -eTAtamI TñPaB b=spPaBCakEsñg; ³

- o. kññ)avFmpta
- o. CakññkññCRgñkFmpta
- o. CakññkññCRgñkEbbfñ
- o. CakññkññCRgñkEdI eFñññbnññEdk b=EdksgñsI

- kŋ)avFmpta dak; t eRm ob kŋ CRgkEd I manB%T Aeday s MNaj Edk
- Bag b= RkLeFBH dæ b= smgt\_ b= brkŋEd I GacbiCit) anepSgeTot dEd I man erobrabenAkŋEpik 3>4>3 .

### 3>3>5 karRsg; nig vPaKTinŋy

#### 3>3>5>1 karvaskNNtRocalk

Ex	1	2	3	4	5	6	7	8	9	10	11	12
GRTasNNm>°												
GksŋhSn >° -tam I TPaBCakEsg;												
GRTastV ŋ > k,al ¼KIL ŋkam GRTadNNH >°												
GRTaGgæedm >°												

#### 3>3>5>2 karvaskNNtenæBI cabepn nig eBI bBaŋ, -eTatam I TPaBCacrK)ansmŋ<sup>31</sup>

I >	bcŋTkdak; -eRCSerIs tam s PaBCakEsg;	GRTadNNH °		GRTastV ŋ k,al ¼KIL ŋsu		GRTaGgæedm °	
		dŋŋ	bBaŋ,	dŋŋ	bBaŋ,	dŋŋ	bBaŋ,
1	)avFmpta						
2	CRgkFmpta						
3	CRgkEd I )anEk I mŋ						
4	CRgkeFBEdksgŋsI						
5	Fg sŋŋEd I GacbiCit						
6	)avdakŋŋRTŋs MNaj Edk						
7	kŋBag b= RkL dI b= smgt_						
8	FgTikeFBC½						
9	brkŋbitCit FMeFBes, ag)ask						
10	fgsŋPrbsGŋl						

### 3>3>5>3 karvasKINtGrtasNINm

#### smá<sup>3</sup>brkøEdI RtUkar<sup>3</sup>

- brkøvasGrtasNINm -rbTI2!; nig ÉksarENnaM(R)abG(rebobeRbR)as;
- RKabRSUmYcmhsmI pnsRmabeRbR)asCasINakkjkarvasedaybrkøxageI
- Fg b=kljC/Fmpta b=samBaß b=fgRkdas;t<sup>2</sup>sRmabdak; b=RcksINak
- bc b=exAéd Rkdas; nig masInKitel x sRmabKNna nig ktRtaGrtasNINm mFüménsINak 3 EdI RtUvas; .

#### rebobvas;<sup>3</sup>

- 1> cdGannUkarENnaM(rebobeRbR)asbrkøvasSINm
- 2> cæbkbrkørenah
- 3> RtUemil eGayR)akdfabrikørenahRtU)andak; b=ccsRmVl sRmabRSU
- 4> dakSINakeTAKj)søRba b=bBaP)eTAKj)brkø
- 5> mVl b=ccbtgedm,eGaybrkørbgøj nUtémGrtasNINm
- 6> eFkarvaseGay)anyagt<sup>ic</sup> 3 dg ehlyKNnaGrtasNINmmFüm .

### 3>3>5>4 karkINtInUGrtadINURKab;

#### smá<sup>3</sup>brkøEdI RtUkar<sup>3</sup>

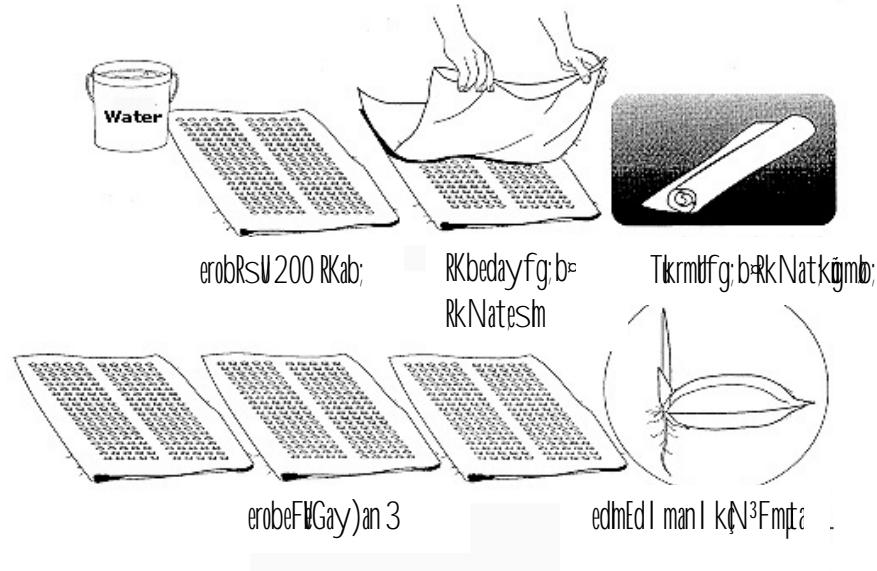
- kbfgfBRkeca b=RkNateFBGM)ahff -rbTI18!
- RKabRSUmYcmhsmI pnsRmabeRbR)asCasINak 3
- Fg klj b=fasC/Fmpta b=samBaß
- bc b=exAéd Rkdas;nig masInKitel x sRmabKNna nig ktRtaGrtadINUR .

#### rebobvas;<sup>3</sup>

- 1> dak;teRmobRSU 200 RKabenAel IfgRkeca b=RkNateFBGM)ahEdI )anRCI k;Tik eGayeshræhly
- 2> ykfg;b=RkNatmlyeTotEdI esmeTARKbBel RSUedI )an teRmobræhlyenah
- 3> eFrebobenHeGay)an 3 -3 rmd!
- 4> mdfg; b=RkNatEdI manRKabRSUenah ehlyTikvaenAkjmbry<sup>3</sup>eBI 7 éf¶. cdepShrmdfg; b=RkNatenah edayecosvagmineFVGayvas¶kjGMLjgeBI enah

- 5> enATb)it c)rabnUchMhedmFmptaEdI )andH -edhEdI manI kN<sup>3</sup>Fmpta KQaedm EdI manb s nig edmdgFmpta;
- 6> KNnaGRTadNH -KitCaPaKry; tamrbmnpxagerkam

$$GRTadNH = \frac{cMhedmFmpta}{cMhRKabRsUsrb} \times 100$$



**rbTI18<sup>3</sup> vFlaskNH tGRTadNH**

**3>3>5>5 karvasKN tGRtaGgáedh**

-kicRarenHRbEHl CaRtUeFhdayGkEdI manCmaj enAkjmnPBeSaFn!

**smá<sup>3</sup>brkq<sup>3</sup>**

- maslnkinRsUtEdI manI kN<sup>3</sup>CamashmnPBeSaFn\_ EdI enAkjmashtenahman t,al sRmb t,al sRmit nig brkqEj kRKabGgátamRbEvgbeNpy -rbTI19;
- CBagtEdI Gacfg)an 50 Rkam ehlymanbgáj eI xTmfjkRmit 0>1 Rkam
- RKabRsUmYcmh smI pnsRmabeRbR)asCasNHak 3
- Fg kldg b=fasCFmpta b=samBaß
- bic b=expéd Rkdas; nig maslnKitel x sRmabKNna nig kTRtaGRtaGgáedh .



t,al sRmb



t,al sRmit



brkqEj kRKabGgátamRbEvg

*rbTI19<sup>3</sup> mashkinRslmYsRmb;edm,lasKNI tGRtaGgáedlm*

rebobvas;<sup>3</sup>

- 1> hal smí sINakRKabRsVeGaymanGRtasINm 14 °
- 2> smít nig fngsINaknmY<sup>2</sup> -BI 100 eTA 150 Rkam;
- 3> dakbBaP sINakRsUedm,kinSRmb 2 dg edm,bFGaymanenAs I RsUl ayLM  
 kúGgásRmbtictcbbdt nig edm,katbnBynUkareFGayxtatd I RSTabknk;  
 -Edl enACMij RKabGgásRmb! . mix b=épbLkAsTatj 2 KYRtU)anEksRmV b=α  
 dakeGaybHKæfr<sup>2</sup> b=éGayXatBKáRbmaNca 0>3 mill EmRt GáRsyetAtam  
 TmRkabRsu
- 4> dakbBaP sINakGgásRmbenaHeTAKinkú t,al sRmitkúry<sup>3</sup>eBI BI 20 eTA 35  
 vnaTI edm,ITV )anGgásKúkrmit smI pn -ry<sup>3</sup>eBI kinSRmitRtUetdKá  
 sRmabsINakTatjGs;
- 5> eFKarEj kGgásenaHedayeRbR)asbrkqEj kGgátamRbEvgbeNpy edm,Ej k  
 ykRKabGgáedlm nig RKabGgáEd I manRbEvgEvgCag 3¼4 énGgáedlmBcúGgá
- 6> KNnaGRtaGgáedlm -KitCaPaKry; edayeRbR)asrbmnxagerkam<sup>3</sup>

$$GRtaGgáedlm = \frac{TmRfjGgáedlm \text{ nig } GgáEd I \text{ manRbEvgEvgCag } 3\frac{1}{4} \text{ énGgáedlm}}{TmRfj sINakRsu} \times 100$$

### 3.3.5.6 karvaskINtGrtastV

karvaskINtGrtastV manbriyayenAküEpik x1 . cMhstV srb -Tajrs; nig gab; KYRtU)ankrtasRmabRSU 1 KILBkam . köjkrNEdI BmankERBaEdI man)ateFBsINaj ; EdI manrnšbRbehagTihEdI eK)anbBaak; GkpsSBpSayKYeRbR)assINaj karBarryEdI manrnšbRbehagRbhakRbEhI Kä .

*cbBhitüemll köjsINaksjdar edaymnsManfastV TajjenahmanRbPBmkBINaeLy .*

### 3.3.6 karGnutpögöj

enAeBI cabepm cjbBaB; nig enAerogral ExköjGMLögeBI Tikdak; PäkgarpsSBpSayKYerobcM eGaymankarRbCmamykskrbegAI Tajjenah RBmTajjKkarbsKatedm,bronsRt b=hkhat,GBI vFvaskINt; eFCasakSenkarrkeXij fji b= \TBI xis<sup>2</sup>KäenvFITkdakEdI )anGnutp nig edm, I BPakSaGBRbFanbTepSg<sup>2</sup>eTotEdI Tak:TgnjbecRvitüaGnutp\_.

### 3.3.7 karcINay -eTAtamI TPBCakEshj

briyay	Ékta	brimaN	témay	témsrb
kskr bGkshkar	nak;Ex	1 x 12		
kmajBI kmj	nak;éfl			
RKAbRSU	KILBkam			
kareFMINr nig cINayepSg <sup>2</sup>				
srb				

### 3.3.8 skmpaBedI KYGnutpAküGMLögeBI Tikdak;

#### 3.3.8.1 karBhitüemll CRgk bKEngTikdak;

kskrKYBhitüemll CRgk bKEngTikdakerogral s)ph\_.

#### karxtxatCRgk bKEngTikdak;

kar)atbgKINPaBEtgRtU)aneKltmaneLgCaj kj abedaysarkarxtxatCRgk b= sMNgkEng Tikdak; . KYykcitTikdakCaBëssedm,Bhitüemll ERkgmandU F bRbehag cINcCbvag

dlu nig CBaaj sãmerbh kar)akEbk b=nsnAel CBaaj nig )atTRm karxatxatTãr bgã Rck eGayxül bkqgkat;nig crmg b=SNaj )akva .

**vtmanénstknj nig stvab**

RtUBhitüemil ERkgmanI ank daneCgenAel dl rnsFãFayenAel Dav RKabRSURCHkãb; smã<sup>3</sup> brkarEdI xat nig sm,kGãmEdI CasNI Bkarstãj

**vtmanénstV**

ctBhitüemil stV ñenAeBI RBl m b= RBl bedaysarfaenAeBI enãEtegtehrctdeLg eFV eGaygayRSV kãjkarBhitü .

ctBhitüemil sãNakRSUedayErgykecj nãstV ñEdI GacenaI ayLãjRSU edayerbR)as; kERBaãEdI )atsãNaj rbsvamanrnsãM1 eTA 2 mil ñmRt b= ykl ñKreRbR)askERBaãRch CanEdI manrnsãMtãtamI ñab; -]TahrN\_3 2 nig 1 mil ñmRt; . RtUBhitüeGay)anI ñ I ñedm,ñkemil stV ñEdI enAeTrel kERBaãñmy<sup>2</sup> .



**rãTI20<sup>3</sup> vFERgedm,Bhitüemil stV ñenAkãRSU**

manstV ñmychñhektman ehlyrsenAkãRKabRSUEtmã eFãGayI MaksegãBhitü . karya ybãj edayminbeBãeGayeXij Ebbenã Gacbgãj eGayeXij tamvFãFãtsãpdayerbãtãk<sup>3</sup> ctbyksãNakRSUEAdakkãjã b= FãEdI manTãk . RKabRSUEdI )anTTV rgkarbãj manTãñ; RsaI CagRKabRSUEdI enãI ñ eFãGayvaGENñtmkeI I . ctBhitüemil eGay)anR)akdfãRKab; EdI GENñTãjenãHBitCa)anTTV rgkarbãj EmnedayBãercokbãkva .



karyay bblaj xab BIsINakstV t GacngkINtdng) aneday karekhe LgnUkemPenRSUkngCRgk  
b=kngbrkerTkidak; EdI Cal Tpl én kardkdegInrbsstV t b=edaysarmankincEmk . man  
eBl xl karyay bblaj GacngkINtdng) aneday semgGdGrbsstV t enAeBl vas bblaj RsUenA  
kngCRgk b=kEngTkidak; .

### kardH b=karekItPSt

ctykcitTkdakeTAel kInEdI ekItmaneday sarkardUpSt EdI CasBaabBaakGBlkaryay bblaj  
t, iteBl xl karBhitüedayEPkngBacnggeXlj )aneLy .

### karxatxatedaysarsNhm

ctykcitTkdakeTAel sImTTkenAel KMr b=)avRSU . sImTajenahGacnggenAEtemil eXlj eTah  
bCa)avenahmansPaBsñehlykaday .

### 3>38> karyksINak

vFEEl KYeGayTkkcitCageKedm, kINtGBlkarxatxatedaysarsNhm stV t nig karyayl  
bblaj BIsINakstV t KWarBhitüemil RSUEdI )anTkdakenahpAl ; . edm, hngEFkkcKareh caNac;  
RtUEtyksINak . sINakmYRkanEtCaEpktbmYénRKabRSUTajGsenAkngKMr . eh tenH  
karyksINakRtUEtRbRBitpLgeTAtamvFanCak;I ak; nig edayRbgRby%bpt edm, ITTV )an  
sINakEdI manI kN<sup>3</sup>tINageGayKMrRSUTajmlU .

edm, eGaymanPaBR)akdRbCaEbbenah<sup>3</sup>

- o RtUEtyksINakbzmeGay)anRKbRkan; b=kRbcMh
- o cINoEdI RtUyksINakRtUEtBRgayenAsBKEngkngKMr
- o RtURcbI cu KänUsINakbzmedm, ITTV )annUsINaksmas ?? el kEl gEtsINak  
EdI RtUykeTavasGRtasNhm;
- o sINaksmasRtUbnBy b=brgimeGayenAtic b=tb CasINakspjdar EdI ngRtueFkar  
vPaKyagl tI h; .

sINakRbePTTaj 3 EdI manenAkngEbbbTenHRtU)ankINtdteteTA<sup>3</sup>

## SNakbzm

SNakbzmny KDasSNakmyEdI dkyk)anB)avmy EdI SNakenahmanmaDRbmaNca 100 ml H Rt -b=0>1 I Rt; . edh,ITV )ansSNakEdI manI kN<sup>3</sup>tINageGayKMrTabymU SNak bzmEdI RtUykrTUEtmanchMerchRKbRKan;EdI karykenahRtUGnutpTAtamvFanxagerkam .

## SNaksmas

SNaksmasKCapI ékarRcbI ,cU KánUSNakbzm . vaKYEtmanmaDtcbMtk<sup>3/2</sup> I Rtedr .

## SNaksjdar

SNaksjdarmanmaD 1 I Rt Kt; . vaTTV )anedaykarbnf b=brgymaDénsSNaksmas edayerRbR)asbrkarEj ksSNak -rbTI 14; . SNaksjdarKwaÉktpmU dan sRnabkarvPaK emil karyaybblaj rbsktpcerg .

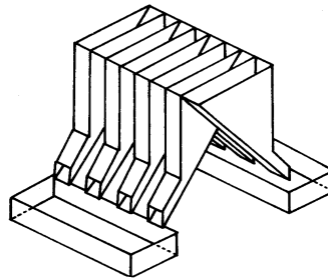


Fig. 22. Box divider.



Fig. 23. Scale.

*rbTI21<sup>3</sup> brkarEj ksSNakmychh*

## chhSNakbzm

chhSNakbzmcticbMtt GacERbRbll GaRSkyeTAtamTmhKMrRSU b=)avRSU . chhenHGaRSky CaTbMtteTAngchh)avRSU edayminKitfa)avnmy<sup>2</sup>Fq; b=rsal bNéLly .

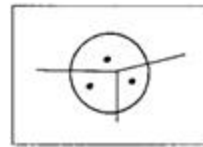
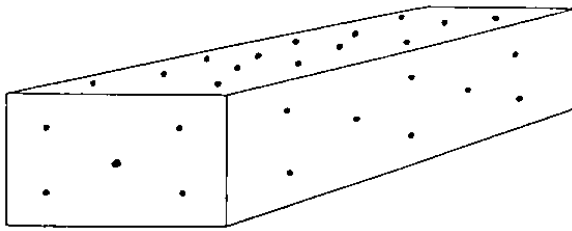
## chhSNakbzmGb,brmakjKMrEdI man)avRSUrch

chh)av	chhSNak	chh)av	chhSNak	chh)av	chhSNak
< 10	1 B)avnmy <sup>2</sup>	800 - 900	30	2500 - 3000	55
50 - 100	10	900 - 1000	32	3000 - 3500	59
100 - 150	12			3500 - 4000	63
150 - 200	14	1000 - 1200	35	4000 - 4500	67
200 - 250	16	1200 - 1400	37	4500 - 5000	71
250 - 300	18	1400 - 1600	40	5000 - 6000	77
300 - 400	20	1600 - 1800	42	6000 - 7000	83
400 - 500	22	1800 - 2000	45	7000 - 8000	89
500 - 600	24			8000 - 9000	95
600 - 700	26	2000 - 2500	50	9000 - 10000	100
700 - 800	28				

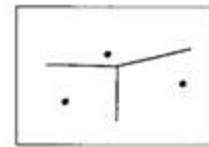
enAeBI RbKI ;TTV RsU KYyksiNakbzm 1 kőc(Nam)av 2 enAeI lyanynp.

### cNcEdI RtUyksiNak

cNcEdI RtUyksiNakRtUEtenAray)aysBKEngel épíróbrsKMr . enHmannyfa sRmab; épEdI FcNcEdI RtUyksiNakRtUEtekeTAtamenahEdr . RbsnebépíróbenahmanTmM1 20 EmRtkaer: -Ca]TahrN; ehlyépmagmanTmM40 EmRtkaer: 1 PaK 3 énsNakRtUEtykBI Epíkmegenah . enAxagEpíkedI manépb24 EmRtkaer: 1 PaK 5 énsNakRtUEtykeTAtamenah .



wrong



right

### rbT122<sup>3</sup>TitadencNcEdI RtUyksiNak

### 3>3>3 karBhitüKNPaB

yagehacNas; KYEtmansmá<sup>3</sup>brkqrmlycmh dtd.manerobrabxagerkamedm,(RbR)askőkar BhitüKNPaBRKabRsU<sup>3</sup>

- o brkqrvassNm
- o kERBa@mlycmh
- o EkvBRgkkanedayéd
- o CBa@mly .

### karvaskNtGrtasNm

karvaskNtenHKYEtRtUGnutPam<sup>2</sup>bnabBkaryksiNak edaysarfaGrtasNmGacERbRbM yageI On . CaTtTAkicRarenHEtgGnutpdayerRbR)asbrkqrvassNm .

kőkrNEdI BQacrbkrqrenH)an GkEdI manbTBésafnGacRbmaNdgxHGBPaBsmRsbrbs; RsUsRmabkarTkdak; tamvFBhitüedayEPk sbab nig PaBmrgbrsRKabRsUhmly<sup>2</sup> .

### karvaskNtstINPaBRKabrSU

stINPaB b $\approx$  kemARKabRSUGacngRtUvaskNt)anedayerRbR)asETrmEmRt . ETrmEmRt sRmabRSURtU)aneKpI iteGaymandgsbeFBEI ah<sup>3</sup>ngEdI GacskTMHsm,k)av)an . ETrmU EmRteGLicRtUk erChmanbrikarsbeFGBISINEdI GacbtEbn)an . sINenaHGacRtU)aneKpSa PaBcamYsréseI ah<sup>3</sup>ng bmydakbBaP eTAKij)av b $\approx$ TAKijEdkqaM

tamFmpta kemAxsenAkijKhrRSUKWasBaEdI bBaak,famanskmpPaBbDaj rbsstV # Ca]Ta hrN\_KWhAkij : cINcekA : . PaKgarpsBpSayehlyngkskr KYEtcakRSUecj B)avEdI ekA enaHeGayGs; edm,Bnitü RBmTajkNt,GBITMM b $\approx$ kRmiténkarbDaj b $\approx$ karxUxatcBaH)av RSUTajLayEdI enAEk,rxag .

### 3>38>4 karvayémGDKar)atbg;

vEdI samBaDpDtkij karkNtGDKar)atbgbrimaNenAkijeBI TikdakKWarktRtanUbrimaNRsU cu nig ecj -vFifijcu fijej ; . epSgBenHeTAvij edaysarEtmd eh tUajLayxagerkam CaTtTAeFUGaymanPaBSpKsaj kij karkNtGDKar)atbgbrimaN<sup>3</sup>

- o BmanvFKNnaGDKar)atbgNaEdI manPaBsamBaD rhis KYeGayTkcitp nig Gac GnutbktkijeBI RBm<sup>2</sup>KaeLiy
- o Caj ikj ab; eKBacdmGay)anCak;l aknUbrimaNRKabrSUEdI Rbmd )an CaBess sRmabkarTikdak,tamksidan tbtac -]TahrN\_ kijRK'sarkskr; eFUGayeKRRanEt Gacdmfamankar)atbgenAeBI erkaymk binpindijGDKbrimaNBitR)akd
- o kijkrNEdI rgkaryaybDaj BsinakstV # karRskclTmfinngminGaRSy eTAnij PaBxisKaénTmifenAmn nig erkayeBI bDaj eLiy . enAeBI ykpl itpl eTAFij kak sINI ; kMicesA sINaj ; -BgBag; stV #EdI gabehty nig I amkkNpEdI enAI ay LMEtgRtU)ansrbcu Edr . edaysnpt,fasarFatul ayLWajGsenHBacbmokyk ecj Bpl itpl )an kar)atbgCabrimaNcakEsijmanTMMsCagGEdI )anKNna .