



জাতীয় শিক্ষাক্রম ও পাঠ্যপুস্তক বোর্ড, ঢাকা

#### 

## **KVI XWI K WK ¶V I ^^'** " mßg †kily

i Pbv Aveygyn¤§` †gvt Avãyi nK †gvt ZvRgyi nK Rwmg Dwil b Avn¤§`

m¤úv`bv c∯dmi Aveg dviK

RvZxq wk¶vµg I cvV"cy¯-K tevW© XvKv

#### RVZXQ WK¶Vµg I cW"cy¯-K teW© 69-70 gwZwSj ewYwR"K GjvKv, XvKv-1000 KZK cKwkZ|

 $\begin{array}{c} [\text{CKVKK KZK me}^{\text{C}}\text{Z}_{i}\,\text{msiw}]\text{Z}] \\ \text{cix}\text{\P}\text{vg}_{i}\,\text{K ms}^{\text{-}}\text{<}\text{i}\,\text{Y} \end{array}$ 

 $c\underline{\tilde{0}}g\;cK\hspace{-0.1cm}\tilde{\hspace{-0.1cm}K}\hspace{-0.1cm}\tilde{\hspace{-0.1cm}V}\hspace{-0.1cm}\tilde{\hspace{-0.1cm}K}\hspace{-0.1cm}\tilde{\hspace{-0.1cm}V}\hspace{-0.1cm}\tilde{\hspace{-0.1cm}W}\hspace{-0.1cm}\tilde{\hspace{-0.1cm}I}\hspace{-0.1cm}\tilde{\hspace{-0.1cm}K}\hspace{-0.1cm}\tilde{\hspace{-0.1cm}V}\hspace{-0.1cm}\tilde{\hspace{-0.1cm}V}\hspace{-0.1cm}\tilde{\hspace{-0.1cm}I}\hspace{-0.1cm$ 

cvV cy -K ciyqtb mgš^qK tgni wbMvi Rwiqv Zji nvdmv

> Kw¤úDUvi K‡¤úvR Kvjvi MůndK

cÖQ` my`k® evQvi mpRvDj Av‡e`xb

wPÎv1¼b MvRx†gvnv¤§ gvngÿji ingvbwU‡Uv

wWRvBb RvZxq wk¶vµg I cvV~cy¯-K tevW©

miKvi KZK webvg‡j weZi‡Yi Rb

gỳ ‡Y:

#### c\h/2-K\_v

bZb GB wk $\Pv\mu tgi$  AvtjvtK ctvZ ntqtQ gvaugK -tii ctvZ mKtvZ ctvZ DtvZ ctvZ ntqtQ gvaugK -tii ctvZ mKtvZ ctvZ DtvZ ctvZ ntqtQ gvaugK -tii ctvZ we tePbv Kiv ntqtQ ctvZ CtvZ CtvZ ntqtQ wbePb I DctvZ vctvZ ntvZ mRbkxj ctvZ ctvZ we Kvk mvatvZ ctvZ vctvZ ctvZ ctvZ vctvZ ctvZ vctvZ ctvZ vctvZ ctvZ vctvZ ctvZ vctvZ ctvZ vctvZ vct

kvixwi K wk $\P$ v I  $\tilde{}$  we I qwU g  $\tilde{}$  Z m $\tilde{}$  v''  $\tilde{}$  n I mRxe gb GB Rxeb `k $\P$ bi Dci wfwË K $\tilde{}$  Kti c $\tilde{}$  vxZ|  $\tilde{}$  k-wet` $\tilde{}$  this wewPî this vaj v PPA wfZi w`tq wk $\P$ v\_Av this Kg $\P$ g mjovMwi K wn $\tilde{}$  mte wb $\tilde{}$  RtK Mto Z $\tilde{}$  it Cvti tmw` K we te Pbvq tith cvV wbeAPb Kiv n $\tilde{}$  q vk $\Pi$ v\_Av this Kg $\Pi$ g mjovMwi K wn $\tilde{}$  mte wb $\tilde{}$  RtK Mto Z $\tilde{}$  it Cvti tmw` K we te Pbvq tith cvV wbeAPb Kiv n $\tilde{}$  q vk $\Pi$ V\_AV this ke te Pbvq tith cvV wbeAPb Kiv n $\tilde{}$  q vk $\Pi$ V\_AV this ke te Pbvq tith cvV wbeAPb Kiv n $\tilde{}$  q vk $\Pi$ V\_AV this ke te Pbvq tith cvV wbeAPb Kiv n $\tilde{}$  this ke te Pbvq tith cvV wbAPbvq t

GKwesk kZ‡Ki A½xKvi I c $^{\circ}$ Cq‡K mvg‡b †i‡L cwigwwR $^{\circ}$ Wk $^{\circ}$ Vµ‡gi Av‡jv‡K cv $^{\circ}$ C $^{\circ}$ -KwU iwPZ n‡q‡Q| Kv‡RB cv $^{\circ}$ C $^{\circ}$ -KwUi AviI mgw×mva‡bi Rb $^{\circ}$ †h‡Kv‡bv MVbg $^{\circ}$ K I h $^{\circ}$ Sm½Z civgk $^{\circ}$ ¸i‡Z $^{\circ}$ m†½ we†ewPZ n‡e| cv $^{\circ}$ C $^{\circ}$ -K c $^{\circ}$ Yq‡bi wecj Kg $^{\circ}$ ‡Ái g‡a $^{\circ}$ AwZ  $^{\circ}$ ſ mg‡qi g‡a $^{\circ}$ C $^{\circ}$ -KwU iwPZ n‡q‡Q| d‡j wKOz f $^{\circ}$ Ĵ îwU †\_‡K †h‡Z cv‡i | cieZ $^{\circ}$ Cms $^{\circ}$ <iY $^{\circ}$ ‡j v‡Z cv $^{\circ}$ C $^{\circ}$ -KwU‡K AviI m $^{\circ}$ ì, †kvfb I  $^{\circ}$ 1 îwUg $^{\circ}$ 3 Kivi †Póv Ae $^{\circ}$ vnZ, \_vK‡e| evbv‡bi † $^{\circ}$ 1 AbmZ n‡q‡Q evsj v GKv‡Wgx KZ $^{\circ}$ 8 c $^{\circ}$ VxZ evbvbi xwZ|

cvV°cȳ—KwU iPbv, m¤úv`bv, wPÎv¼b, bgþv ckwa` ckyqb I ckkvkbvi Kv‡R hviv AvšwiKfv‡e †gav I kg w`‡q‡Qb Zu‡`i ab°ev` Ávcb KiwQ| cvV°cȳ—KwU wk¶v\_æp̄`i Avbwò Z cvV I cæz°wkZ `¶Zv ARÐ wbwðZ Ki‡e e‡j Avkv Kwi|

> c**¢**dmi †gvt †gv<sup>-</sup>—dv Kvgvj Dwi b †Pqvi g¨vb RvZxq wk¶vµq I cvV¨cv̄—K †evW°,XvKv

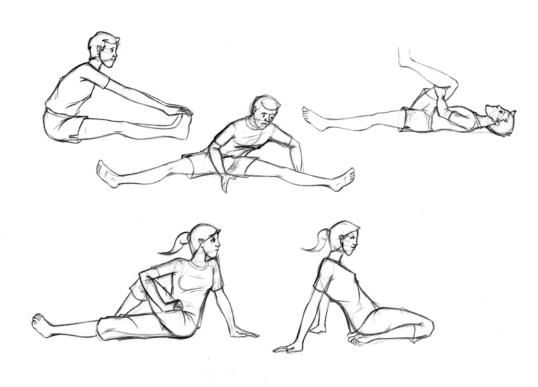
## m⊮PcÎ

Aa¨v‡qi	Aa¨v‡qi wk‡ivbvg	CÔV
c <u>Ö</u> g	kixiPP®I mȳ'Rxeb	1-10
мØZxq	- <vdwus, mvj="" td="" ©mvbwws<=""><td>11-22</td></vdwus,>	11-22
ZZxq	-^v-'"weÁvb cwiwPwZ I -^v-'"‡mev	23-29
PZ <u>ı</u> ©	eqtmwÜKv‡ji eïw³MZ wbivcËv	30-36
cÂg	Rxe‡i b Rb¨†Lj va <b>j</b> v	37-52

#### c<u>0g</u> Aa "vq

## kixiPP®I mȳ'Rxeb

c@PxbKvtj kixiPP@ gj j ¶ wQj my l mej † n KvVvtgv MVb A\_@ mweRfvte ^ wnK DbwZ | † tni mvtgtbi Nwbô m¤úK©itqtQ | G KvitY ^ wnK DbwZi mvtg mvtg e w³i gvbwmK, mvgwwRK I ^ bwZK DbwZI m¤ú,³ ntqtQ | kvixwiK A½mÂvjb I tLjvajvi gva tg kvixwiK my 'Zv AR®, wPËwetbv b, k\$Ljvteva I tbZZî vtbi ¶gZv AR® Kiv hvq | † tni DbwZ I gvbwmK weKvk mvab Kti kvixwiK m¶gZv AR\bi gva tg my 'RxebhvcbB ntjv Gi gj j ¶ |



kixiPP@I mȳ'Rxeb

#### G Aa vq tk 1 Avgiv -

- 1. avivewnKZvmn we`"vjtq cÖZ"wnK mgytetki wbqgvewj eY®v KitZ cvie|
- 2. mȳ' Rxe‡bi Rb¨ c@\_wgK ¯^v¯'¨wewa eY®v Ki‡Z cvie|
- 3. kixi MV‡bi Rb¨e vqv‡gi clr̃ve we‡k+Y Ki‡Z cvie
- 4. AwZwi³ e¨vqv‡gi Kydj e¨vL¨v Ki‡Z cvie|
- 5. miÄvgwenxb I miÄvgmn e vqvtgi wbqqKvbp eY®v Ki‡Z cvie
- 6. cÖZ¨wnK Rxe‡b mgqvbpwZ∑v Abyni‡Yi e¨vcv‡i DØy< ne|
- 7. wbqgKvbp tgtb mi Avgmn e vqvg KitZ cvie

2 kixiPPPI mȳ′Rxeb

#### cW-1: c0Z wnK mgvtetki wbqgvewj

we`"vj‡qi wk¶v\_Av cÖZ"n K+m "iynlqvi c‡e°kşLjvi mv‡\_ mwie×fvţe we`"vj‡qi mvg‡bi gvţV ev †Lvjv RvqMvq Dcw¯'Z nţe| mgvţeţk nvDR ev ţkiNY Abmvţi `wovţe| cÖnvb wk¶K, ţkiNYwk¶K, kvixwiK wk¶K l mgvţek cwiPvjbvKvix wk¶v\_Av hvi hvi wbw`& ¯'vţb `wovţe| `wovţbvi mgq Aţc¶vKZ Kg D"PZvi wk¶v\_Av mvqţb`wovţe, eoiv µgvšţq wcQţb`wovţe|

#### mgvtetki avivewnK Kvhpg -

- 1. RvZxq cZvKv D‡Ëvj b : RvZxq cZvKv D‡Ëvj‡bi mgq mK‡j Ô†mvRvÕ ev ÔG¨v‡UbkbÕ Ae¯′vq \_vK‡e| †KD bovPov Ki‡e bv| cĎavb wk¶K ev GKRb wmwbqi wk¶K cZvKv D‡Ëvj b Ki‡eb|
- 2. RvZxq cZvKv‡K m¤§rb cÖ k®: mgvţek cwi Pvj bvKvi x wk¶v\_PhLb ej ţe- ÔcZvKv‡K m¤§rb cÖ k® Kţi vÕ, ZLb mKţj GKmvţ\_ cZvKvi DţÏ ţk¨ Wvb nvZ Kcvj ei vei Zţj Awfev`b Rvbvţe| hLb ej ţe, ÔnvZ bvgvI Ō, ZLb GKmvţ\_ nvZ bvgvţe|
- 3. agMis' †\_‡K cvV : GKRb wk¶v\_P mvg‡b G‡m Zvi wbR agMis' †\_‡K wbw` Ask cvV Ki‡e | Ab¨ wk¶v\_Pi v gb w`‡q`i b‡e | G mgq mKj wk¶v\_PôAviv‡q `wov‡bvÕ Ae¯'vq\_vK‡e |
- 4. kc\_ Mồy: kc\_ Mồyi mgq mKj wk¶v\_PôtmvRvỗ Ae-'vq\_vKţe| Wvb nvZ Kwa eivei Zjiţe| nvţZi ZvjytLvjv, Zţe Av½j ţţv GKÎ \_vKţe| GKRb wk¶v\_Pmvgţb Gţm kc\_evK" cvV Kiţe Ges mKj wk¶v\_Pmg-^ţi Zvi mvţ\_ Zv cvV Kiţe| kc\_ Mồy tkţl ônvZ bvgvlỗ ejvi mvţ\_ mvţ\_ mKţj GKmvţ\_ nvZ bvgvte|
- 5. RvZxq msMxZ : wk¶KgÊjx I wk¶v\_PmKţj ÔtmvRvÕ Ae¯vq \_vKţe Ges mKţj GKmvţ\_ RvZxq msMxZ MvBţe|
- 6. cävb wk¶‡Ki fvIY: cävb wk¶K ev Zwi Abycw~wZ‡Z †Kv‡bv wmwbqi wk¶K fvIY†`‡eb|
- 7. wc.wU Abykxjb: fvIY †k‡I kvixwiK wk¶K cuP wgwbU mg‡eZ e¨vqvg Kiv‡eb| Z‡e Ggb ai‡bi wc.wU Kiv‡bv hv‡e bv, hv‡Z wk¶v\_@î`i RvqvKvc‡o gqjv jv‡M|
- 8. mgv‡ek †k‡1 †kñYwk¶K ev †kñYi `j‡bZvi †bZ‡Z¡wk¶v\_x9nwie×fv‡e  $^{-}$  ^^ Kv‡m P‡j hv‡e|

KvR-1 : mgv‡e‡ki Kvh@g¸‡jv avivewnKfv‡e eY®v Ki| KvR-2 : mgv‡e‡k †K †Kv\_vq`wov‡e Zv gv‡V wM‡q cÖk® Ki|

#### $cvV-2:c0_{mq}K^{-1}v^{-1}$ wewai aviYv

^v-''m¤§Z Rxebhvc‡bi Rb" e"w³MZ ^v-'"i¶vi cvjbxq wewa-weavbB n‡jv ¬f-'wewa| ¬f-' m¤úwKZ Ávb¸‡jv‡K e"w³MZ Rxe‡bi wewfbœ†¶‡Î cðqv‡Mi gva"‡g RxebhvÎvi gv‡bvbæb Ges my¬f-' ARÐ m¤ú‡K® m‡PZb K‡i| e"w³MZ ¬f-' fv‡jv ivL‡Z hv wKOzKiv ev wbqg cvj‡bi cðqvRb, Zv e"w³‡KB Ki‡Z n‡e| ¬f-' i¶vq thme wewa tg‡b Pj‡Z nq, Zv wb‡P Av‡jvPbv Kiv n‡jv -

1. kvixwiK cwi"Qb@v: †iv‡Mi AvµgY couZţivţai Rb" Avgvţ`i kvixwiKfvţe cwi"Qb@\_vKv couqvRb| †`n Acwi®<vi ev Acwi"Qb@\_vKţj †ivM-RxevYymn‡R †`ţn cotek Kţi| G Rb" cwi"Qb@\_vKvi wbqg\_ţjv cvjb KiţZ nţe| †hgb-

 $kvi wi K wk \P v I ^- v^- ^-$ 

1.1 wbqwgZ tMvmj : wewfbœKvRKg©l †Ljvayjv Kivi mgq Mv‡q gqjv †j‡M kixi Acwi"Qbœnq| G‡Z kix‡i RxevYy†Xv‡K| G Rb" cŵZw`bB tMvmj Kiv DwPZ| †Mvm‡ji mgq mvevb gvLv fv‡jv| G‡Z mn‡R gqjv I Nv‡gi MÜ `i nq|

- 1.2 `uZ I gyL cwi®<vi : mKvtj Nyg t\_tK DtV Ges Avnvtii ci `uZ I gyL fvtjvfvte cwi®<vi KitZ nte|
  `uZ bv gvRtj `utZi dutK Lv`"KYv Rtg gytL `yM© Qovq I `utZi ¶wZ Kti| ivtZ tkvqvi AvtM `uZ
  cwi®<vi Kiv DwPZ|
- 1.3 P‡ji hZœ: ïaytmŠ`‡hP Rb¨bq eis t`‡ni cwi"Qb@zvi Rb¨cÖz¨n P‡ji hZœtbqv cÖqvRb| tMvm‡ji ci cÖz¨n wPiywb w`‡q Pji AwPov‡bv fv‡jv| G‡Z P‡ji tMvov k³ nq I P‡ji †fZi gqjv Rg‡Z cv‡i bv| mßv‡n Kgc‡¶ `ß w`b P‡j mvevb t`Iqv DwPZ|
- 1.4 bL KvUv: nv‡Zi bL GKUzeo n‡jB †K‡U †djv DwPZ| bL eo n‡j Zvi g‡a¨ gqjv R‡g \_v‡K| Avnv‡ii mgq †mB gqjv Lvev‡ii mv‡\_ †c‡U cilek K‡i Ges bvbv iKg †c‡Ui AmvL mwó K‡i|
- 1.5 nvZ cwi®<vi Kiv: nvZ w`tq Avgiv mewKQzawi I bvbv KvR Kwi| G Rb¨ nvtZ gqjv tjtM \_vtK| nvZ cwi®<vi bv Kti tmB nvZ w`tq Lvevi LvI qv wVK bq| Lvevi AvtM c@ZeviB nvZ fvtjvfvte cwi®<vi Kiv DwPZ|
- 1.6 gjgł Z w : mKvtj kh w Z w t i ci gjgł Z w t i Af w Kiv f v t j v | gjgł Z w t i tem KL t bv gb Kiv DwPZ bq | ^ wbK Lv zwj Kvq djgł I kv K mew R \_v Kv f v t j v | GtZ t Kvô K w V b nq bv, mnt R gj Z w Kiv hvq | c w z b GKRb c t eq < gvb t i M to 10/12 M w c w b cvb Kiv c t qv R b | GtZ kixi t t x w I Z c v q v y I c w t t ei n t q hvq |
- 2. evmM‡ni cwi″Qb@Zv : N‡i hv‡Z ch@3 Avţjv evZvm mn‡R cфek Ki‡Z cvţi, Gi Rb¨ cфqvRbxq msL¨K Rvbvjv, `iRv \_vK‡Z n‡e| Ni I Gi Avkcvk me mgq cwi®<vi ivL‡Z n‡e| Nţii tg‡S cфZw`b mKvj we‡Kj gQ‡Z ev Svo-w`‡Z n‡e| KwPv Ni nţj gv‡S gv‡S tj c‡Z nţe| cvKv `vjvb nţj KţqK eQi ci ci cфqvRbxq ms¯vi I is Kiv DwPZ|
- 3. Lv` MbtYi wbqg: Lv` MbtY wbtPi wbqg tjv cvjb Kiv fvtjv -
- 3.1 wbw 8 mgtq Lvevi †LtZ nte
- 3.2 cPv, ewm Lvevi cwinvi Ki‡Z n‡e| †h Lv` mn‡R nRg nq, †Zgb Lvevi LvI qv DwPZ|
- 3.3 Lvevi wPwetq I axti axti tLtZ nte
- 3.4 tewk by tLtg cwi wgZ Lvevi tLtZ nte
- 3.5 me aiţbi Lvevi Lvlqvi Af vm Ki‡Z nţe
- 3.6 Lvev‡i kvKmewRi cwigvY tewk \_vK‡Z n‡e|
- 4. †cvkvK-cwi"Q`: †`‡ni †mŠ`h<sup>©</sup>ew×, kxZ I DËvc †\_‡K †`n‡K i¶v Kivi Rb¨ mg‡qvc‡hvMx †cvkvK civ DwPZ| cwi‡aq e¯wi` cÖZ¨n a‡q ï Kv‡bv fv‡jv| Nvghy³ ev 2/3 w`‡bi gqjv Kvco civ A¯^v¯′¨Ki|
- 5. †Ljvajv I e vqvg: kixi my ' I mej ivL‡Z †Ljvajv I e vqvg Kiv DwPZ | Z‡e g‡b ivL‡Z n‡e, AwZwi³ †Kv‡bv wKQB fv‡jv bq | mvg\_© Ab∱nvqx †Ljvajv I cwiwgZ e vqvg Ki‡Z n‡e | Zvn‡j kixi my ' I A½cÖZ ½mgn mý p n‡e |

kixiPPPI mȳ′Rxeb

6. wekîg I Ng: ^`wnK cwikîg I e`vqvtgi dtj t`tni tKvlţtjv ¶qcÑ3 I wbt¯R ntZ\_vtK | RxetKvlţtjv c‡e® Ae¯′vq wdwitq AvbtZ wekîg I Nţgi cÕqvRb | GKRb mȳ′ tjvtKi ^`wbK 7/8 NÈv Ngvtbv cÕqvRb | GtZ RxetKvlţtjv mtZR I qw¯‡®(i tKvlţtjvi ¶qciY nq |

- 7. Af`vm : Ôgvby Af`v‡mi `vmÕ Z‡e wKQzAf`vm Av‡Q hv cwiZ`vM Ki‡Z n‡e| GKevi Af`vm Lvivc n‡q †M‡j Zv ms‡kvab Ki‡Z mgq jv‡M| †m Rb¨ me mgq Lvivc Af`vm hv‡Z M‡o bv D‡V, †mw`‡K mZK© \_vK‡Z n‡e| mAf`vm MV‡bi Rb¨ wb‡Pi welq ‡jv AbymiY Kiv †h‡Z cv‡i -
- 7.1 AwaK ivZ ch®-†R‡M bv \_vKv|
- 7.2 mh DVvi cil bv D‡V Nyg‡q \_vKv|
- 7.3 Amgtq Ges evBtii Lvevi bv LvI qv
- 7.4 thLvtb-tmLvtb gjgf Z W bv Kiv
- 7.5 webv c#qvRtb tNvivtdiv bv Kiv ev AvÇv bv t`Iqv|

KvR-1: kvixwiK cwi"QboZv eRvq ivLvi Rb" Kx Kx KvR Ki‡Z n‡e Zvi ZwujKv cÖʻZ Ki|

KvR-2: Lvivc Afrim\_tjv cwinvi KitZ nte tKb? Lvivc Afrim\_tjvi eY®v `vI |

#### cw-3: kvixwiK my Zvq e vqvtqi cifve

``wnK I gvbwmK ¯^¬¯′¨ eRvq ivLv Ges Avb>`jvtfi Rb¨ wbqwgZfvte A½ Pvj bv Kivi bvgB e¨vqvg | e¨vqvg t`n I gbtK ewjô Ges mshZ Kti | dtj kw³ I mwnòZv evto, ütwcÊ `p nq, nRgkw³ I tiwl ctiZtiva ¶gZv ew× cvq | kixtii kw³ I mwg\_° Ab∱nvqx e¨vqvtgi weIq wberPb KitZ nq | cwiwgZ e¨vqvg ¯^\t-¯¯¯¯¯ bbwZi Rb¨ mnvqK | e¨vqvg Kivi mgq Zvovûov KitZ tbB | e¨vqvtgi gta¨ wKOZ¶Y weiwZi ctqvRb | GB weiwZ bZb Kti e¨vqvg Kivi kw³ thwMvq | AwbqwgZ, Amgq Ges ht\_¯¯Qv e¨vqvg Kiv DwPZ bq | wkï i ¯`wnK A½ctZt½i ew×i mvt\_ mvt\_ e¨vqvg Z\_v kixiPPP KgmwPiI cwieZb ctqvRb | cwiwgZ e¨vqvg Øviv t`tni Aw¯¯′, gvsmtcwk I Ab¨vb¯¸ipZcY°At½i myg ew× NtU | eqm ew×i mvt\_ mvt\_ e¨vqvtgi KgmwP mnR t\_tK μgkB KwVb nte | A\_m² μgwMZ Dboz nte | Gfvte e¨vqvg Abkxjtbi avivewnKZv i¶v KitZ nte | e¨vqvtgi Abkxjtbi KgmwPtZ `xN°meiwZ \_vKte bv | e¨vqvg Abkxjtbi mgq A½ctZt½i e¨vqvtgi avivewnKZv wVK ivLtZ nte | thgb: gv\_v t\_tK ¨iyKti axti axti cv ch®-Gtm tkI KitZ nte | ¯^¬¯′¨m¤\$Z Rxebhvctbi Rb¨ e¨vqvg Acwinvh° wetkI Kti Qvî Qvî xt`i Rb¨ e¨vqvg I tLjvajv tewk ctqvRb | G mgtq Qvî Qvî Qvî xt`i kvixwi K MVb `tZ ew× cvq | dtj A½ctZt ½ I kvixwi K KvVvtgv my`p nq |

KvR-1 : kvixwiK mȳ'Zvi Rb¨e¨vqv‡gi fwgKv eY®v Ki| KvR-2 : e¨vqvg Ab∤xjb Kivi avivewnKZv D‡j ⊨Ki|

#### cvV-4: AwZwi³ e¨vqv‡qi Kzdj

Avgvţ`i Rxeţbi mKj KgRvţÊi GKUv mxgve×Zv iţqţQ| GB mxgvi evBţi AwZwi³ tKvţbv wKQB fvţjv bq|
AwaK cwigvţY Lvevi MbnY thgb ¬^vţ¬''i Rb" ¶wZKi, tZgwb caqvRţbi AwZwi³ e"vqvgI ¬^vţ¬''i Rb"
¶wZKi| Avevi hLb-ZLb e"vqvg Kiv wVK bq| mKvţj ev weţKţj GKwU wbw` 6 mgţq câZw`b e"vqvg Kiv
DwPZ| Avevi Lvevi MbnţYi cţi e"vqvg Kiv ¬^vţ¬''i Rb" ¶wZKi| eqm I wj½ tfţ` e"vqvg wberPb Kiv
DwPZ| thgb:

kvi xwi K wk $\P$ v I  $^{-1}$ V $^{-1}$ "

- 1. wkï‡`i fvix wRwbm †Zvjvi e vquq Kivti A½cZZt½i DbwzZ ev ew×i †Ptq ¶wZ nte|
- 2. wkii‡`i 30/40 wgwbţUi tewk eïvqvg Kivţj kixi K+s-nţq coţe|
- 3. Gtj vtgtj vfvte e vqvg Kivtj thgb: GKevi nvtZi e vqvg, cti wbtP i tq e vqvg, Zvicti kw³ evovtbvi e vqvgNGfvte e vqvg bv Kti avivewnKfvte e vqvg Abkxjb KitZ nte | Zv bv ntj kixtii ¶wZ nte |
- 4. fivtctU e vqvg cwi Z vR | LvI qvi ciciB e vqvg Kitj tctU e \_v I ewg nte |
- 5. e vqvtgi gta weiwZ bv w tq GKvavti e vqvg Kitj kixi Aek ntq Avmte
- 6. e'vqvg Kivi c‡e<sup>©</sup>kixi Mig Kţi wbţZ nţe| kixi Mig bv Kţi e'vqvg i'iyKiţj gvsmţcwkţZ Uvb cţo `N®bv NUţZ cvţi|
- 7. c<u>0</u> tg mnR e vqvg tjvi Abkxjb Kwitq µgvštq Kwtbi w tK thtZ nte Zv bv ntj kixtii Af šixY A½ tjv cwiktš-ntq cote
- 8. mKvţj Lwwj tcţU e vqvg Kiv DwPZ bq| Lwwj tcţU e vqvg Kiţj ewg ev tcU e \_v i iynţe|

DwjwLZ AwZwi³ e"vqvtgi Kzdj¸tjv wetePbvq titL e"vqvtgi weltq wbaPiY KitZ nte| ZvntjB kvixwiK mȳ'Zv AR® Kiv m¤e nte| Ab \_vq DcKvtii tPtq kixtii AebwZ nte|

```
KvR-1: AwZwi³ e¨vqvţgi Kzdj¸ţjv wjL Ges`ţj wef³ nţq AvţjvPbv Ki|
KvR-2: KLb, Kxfvţe e¨vqvg Kiv DwPZ Zvi GKwU ZwjKv^Zwi Ki|
```

#### cvV-5: mi Avgwenxb e vqvg

Avgyt`i AtbtKiB Ggb aviYv itqtQ th miÄvg Qvov †Kvtbv †Ljvajv Kiv hvq bv| G aviYv mwVK bq| miÄvg Qvov bvbv aitbi e vqvg Kiv hvq| miÄvg Qvov e vqvg‡K Ôwd«n vÛ G· vi mvBRÕ ev Ôgý³ nt -e vqvgÕ etj| j vdvj wvd, †`Šovt`Šwo, wWMewwR, †nW÷ vÛ, wcwU ev mgteZ e vqvg-G meB miÄvgwenxb e vqvtgi Aš+9° | miÄvgwenxb e vqvtgi KtqKwU D`vniY wbtP †`qv ntjv-

- 1. `g: †Ljvajv Ki‡Z n‡j `‡gi cðqvRb nq| `g ev kvixwiK mnbkxjZv bv \_vK‡j †Kv‡bv †Ljvajvq mdjZv ARÐ Kiv hvq bv| `g bv \_vK‡j kix‡i kw³ cvlqv hvq bv| d‡j ZLb †Kvb †Ljv wVKg‡Zv Abykjxb Kiv hv‡e bv| †hgb: AbeiZ nwU‡j ev GKUvbv †`Šov‡j `g ew× cvq| `g ew×i Rb¨ wb‡Pi e¨vqv‡gi Abykjxb Ki‡Z n‡e|
- 1.1 GKNÈv axi MwZ‡Z †`Šov‡Z n‡e| †`Štoi gv‡S †Kv‡bv wei wZ \_vK‡e bv|
- 1.2 GKUvbv \ \mathbf{Z} nvWtZ nte- KLtbv \_vgv hvte bv | GtZ \ \ g eyx cvte |
- 1.3 DPz-wbPz RvqMvi Dci w`tq t`ŠovtZ nte| Aek" tLtjvqvot`i eqm I mvg\_© Abyhvqx mgq wbaPt Kti w`tZ nte| Gfvte wewfbœaitbi e"vqvg Kitj tLtjvqvot`i `g ew> cvte|
- 2. Kwâ I †Kvg‡ii e"vqvg : i"v‡KU RvZxq †Ljvajvi Rb" Kwâi kw³ †ewk cðiqvRb| †hgb: †Uwej †Uwbm, e"Wwg>Ub, wµ‡KU, nwK BZ"w` | wµ‡KU ej e"v‡U jvMvi mv‡\_ mv‡\_ Kwâi †gvP‡o †h‡Kv‡bv w`‡K ej cvVv‡bv hvq| e"Wwg>Ub †Ljvq ¯§vk Kivi mgq Kwâi kw³ †ewk n‡j ¯§vk mdj nq| wewfbæv‡e nvZ Nywi‡q Kwâi e"vqvg Kiv hvq| gwU‡Z `ynvZ †i‡L kixi Dc‡i-wb‡P Zjj‡jI Kwâ Z\_v nv‡Zi kw³ ev‡o| wPb Avc, ck AvcI Kwâi kw³ evov‡Z mvnvh" K‡i| †Kvg‡ii e"vqvg Ki‡Z n‡j kixi wewfbæv‡e A\_®r Wv‡b ev‡g Nywi‡q

6 kixiPPPI mȳ′Rxeb

tKvg‡ii eʻvqvg Ki‡Z nq| wc‡V KvD‡K Z‡j wb‡q kixi Avc-WvDb Ki‡jI †Kvg‡ii kw³ ev‡o| Gfv‡e e'vqvg K‡i Kwâ I †Kvg‡ii kw³ ew× Kiv hvq|

3. Kbß tft0 etm e'vqvg : gwWtZ cv mvgtb tmvRv titL emtZ nte| nvZ `wW kixtii `ycvtk gwWi Dci \_vKte| Gici nvtZi Dci fi w`tq kixi Dcti ZjtZ I bvgvtZ nte| kixi Dcti wbtP DVv-bvgv Kivi mgq cv `tUv GKÎ I tmvRv \_vKte|

KvR-1: miÄvgwenxb e vqvg ej‡Z†Zvgiv Kx eß? e vL v Ki

KvR-2: `wU miÄvgwenxbe vqvg cök® Ki∣

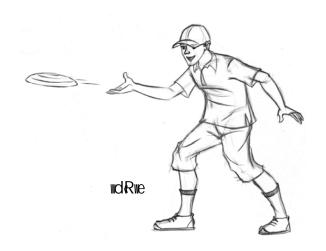
#### cvV-6: mi Ävgmn e vqvg

miÄvg wb‡q th e¨vqvg Kiv nq, Zv‡K miÄvgmn e¨vqvg e‡j | miÄvg wewfbœai‡bi n‡Z cv‡i | Z‡e †Ljvajvi miÄvg t\_‡K e¨vqv‡qi miÄvg wfbæ thgb- w¯<wcs tivc, tivgvb wis I wdRwe BZ¨wv` |

6.1 w̄<wcs : w̄<wcs tiv‡ci gva¨‡g th e¨vqvg Kiv A\_ $\P$  jvdv‡bv nq Zv‡K w̄<wcs e‡j | bvbvfv‡e w̄<wcs Kiv hvq |

K. 8/10 Rb GK jvBtb `wotq w < wcs KitZ KitZ t` \$wotq mvgtb hvte I wdti Avmte|

- L. GK RyqMyq `wotq w-<wcs Kiv hyq | GKUvbv 5 wgwbU mevB -^ -^ RyqMyq `wotq w-<wcs Kite |
- M. Avevi 6NU w̄<wcs tivc 10 dt/ Aši+ Aši+ `Rb `gv\_v ati tUtb aij | cögwU 2 dt/ DPtZ, ctiinU 3 dt/ DPtZ Gfvte ci ci w̄<wcs tivc aitZ nte | wk¶v\_Rv dvBtj `wovte | GKRb GKRb Kti t`što th cögwUi Dci w`tqjvd w`tq cvi ntq Ges ctiinUi wbP w`tq Gfvte w̄<wcs tivc AwZµg KitZ nte | th Aí mgtq w̄<wcs tivc tivc tiv µm Kti wdti AvmtZ cvite Zvi kw³ I kixtii bqbxqZv fvtjv etj MY¨ nte |
- 6.2 tivgvb wis: `yU iwki mvt\_ `yU tjvnvi wis Sjvtbv \_vtK, GtK tivgvb wis etj | GB wis ati wewfbœ Kvq`vq bvbvcKvi e"vqvg Kiv hvq | Motgi -<j\_tjvtZ MvtQi Wvtji mvt\_ teta A\_ev ewk w`tq Avov ewbtq tmLvtbl tivgvb wistqi iwk teta G e"vqvg Kiv hvq | thgb-
- (K) `B nvZ w`tq mBs Kti wewfbaKvq`vq t`vj LvIqv hvq|
- (L) wis aţi `B cv mvgtb GKÎ Kţi cvţqi ÔGj cwRkbÕ Kiv|
- (M) wis aţi nv‡Zi Dci fi Kţi gv\_v wb‡Pi w`‡K Gţb n¨vÛ ÷ ¨vÛ Kiv BZ¨w` |
- 6.3 wdRwe: wdRwe\_vjvi g‡Zvivev‡ii GKwU tMvj
  PvKwZ we‡kl| ivev‡ii ^Zwi e‡j GwU nvjKv nq|
  †Q‡j‡g‡qiv G w`‡q †Ljv‡Z cPni Avb>` cvq| GKRb
  H PKwZ a‡i `‡i Q‡o †`‡e AciRb †m PvKwZ a‡i
  H cÑš-†\_‡K cþivq Q‡o †`‡e| Gfv‡e 2/3 Rb ev
  3/4 R‡bi g‡a" †QvovQwo K‡i †Ljv hvq| GB
  †QvovQwo †Ljv‡KB wdRwe e‡j| G †Ljvi gva"‡g
  nv‡Zi kw³ ew× cvq|



 $kvi wi K wk \P v I ^- v^- ''$ 

#### 6.4 e**Z**Pvi x bZ":

kvixwiK e"vqvg I my`i t`n MV‡bi Rb" wPËwe‡bv`‡bi D‡Ï‡k" t`‡ki wewfbœA‡ji tjvKbZ" Øviv tm A‡ji Kwó, c<u>ö</u>v cðfwZ dwU‡q tZv‡j | G‡Z QvÎQvÎx‡`i GKw`‡K thgb wPËwe‡bv`b nq, Aciw`‡K wewfbœA‡ji Kwó m¤‡Ü aviYv jvf K‡i | wewfbœA‡ji tjvKMxwZi gva"‡g th tjvKbZ" Kiv nq, G meB n‡jv eZPvix KvhҞjvc ev tjvKbZ" |

wb‡P Szyi b‡Z"i eY®v Kiv n‡jvÑ

#### 1 | Sgyi b.Z":

bZ" †KŠkj Ñ

- K.  $wk \P v_x P v \ B mwi ‡ Z \ wov‡ e | GK mwi ‡ Z Kg msL"K Ges Aci mwi ‡ Z tewk msL"K <math>wk \P v_x P v_v K‡ e | tQvU mwi wU eo mwi i evg w ‡ K `wov‡ e |$
- L. c<u>0</u>g mstKZ nlqvi mvt\_ mvt\_ mKtj jvd w`tq cv tRvov l tKvqti nvZ w`tq `wovte|
- M. wØZxq ms‡K‡Z `jB mwwii mKţj †`Šo Ae¯'vq evg w`‡K Nyi‡Z Nyi‡Z `ywU eË evbvţe| tQvU e‡Ëi evBţi eo eËwU\_vKţe|
- O. PZi\_@mstKtZ cvtqi DVv-bvgv \_vgvte Ges mvt\_ mvt\_ nvZ `B cvtk Ptj Avmte|
- P. cÂg ms‡K‡Z `ß nvZ †Kvg‡i w`ţq e‡Ëi evg w`ţK 1 †\_ţK 7 †÷c †djţe| wZb MYbvq `ß nvZ mvg‡b-wb‡P Avmţe| Gfvţe `ßevi KiţZ nţe|
- 0. Iô mstKZ tkvbvgvÎ evg nvZ gv\_vi evg cvk w`tq 1 t\_tK 7 t÷c tdjte I wZb MYbvq nvZ wbtP Ptj Avmte|
- R. mßg ms‡K‡Z Wwb nvZ gv\_vi Wwb cvk w`tq 1 t\_tK 7 t÷c tdj te| c@Z"Kevi wZb MYbvi mgq nvZ wb†P Avmte|
- S. Aóg ms‡K‡Z `ß nvZ gv\_vi Dcţi Avmţe I 1 t\_‡K 7 t÷c tdjţe | Gfvţe evRbvi Zvţj Zvţj bZ¨ G¸‡Z \_vKţe|

Sgy b‡Z"i MvbÑ

AMV Wvţi em †KwKj
gvS Wvţi evmvţi fwv½j wewiwLi Wvj

Rxetb tbB Avkvţi |

AKvţi cyliyg cwL
wNiZ gayw`qvţi myKvţi cvjvBţib cwL
`viy tkj w`qvţi |

AKvţi cyliyg cwL
Lŷ Kypv w`qvţiÑ
myKvţi cvjvBţib cwL

8 kixiPPPI mȳ′Rxeb

# `viYtkj w`tqvti| Sgyj b;tZ"i gv`tji tevj awwZb ZvZvK&wZb&av awwZb&awwZb&ZvZvK&wL awwZb ZvZvK&wZbav awwZb&awwZb&ZvZv<&wL awwZb ZvZv<& wZbav awwZb&wL, wL, wL|

KvR-1: w~< wcs †ivc Øviv KZ ckkv‡ii e~vqvg Kiv hvq| c0 k10 K‡i †`LvI|

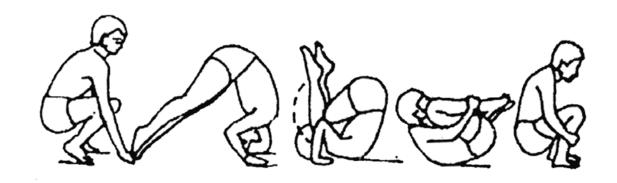
KvR-2 : †ivgvb wis Kv‡K e‡j?†ivgvb wis G Kx ai‡bi e¨vqvg Kiv hvq Zv eY®v Ki∣

KvR-3: wdRwe Kx? wdRwe †LjwU e"vL"v Ki |

#### cW-7: GW#Kkbvj wRgb"w+.

- 1. wk¶vgjK wRgb"w÷· Abjkxj‡bi d‡j wkkyµgvš‡q kvixwiK, gvbwmK I mvgwkRK ¸Yvewj AR® Ki‡Z cv‡i|
- 2. we`"vj‡qBwkiii ^bwZK ¸Yvewj AwRØ nq|
- 3. wk¶vgjK wRgb¨w+t-i Abkxjb¸tjv cwiKíbvgwdK nq etj ev¯ĺe Rxetb Gi cťFve cto|
  GWtKkbvj wRgb¨w+t-i KtqKwU e¨vqvtgi D`vniY†`qv ntjv -

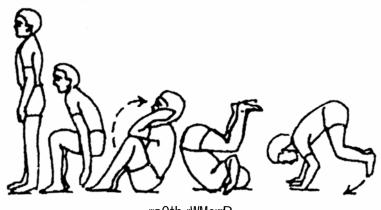
K. m¤§L wWMewwR: `ß nwUz fwR Kti, `ß cvtqi cvZv I `ß nvtZi Zvjyi Dci fi Kti \_vK | Gici tKvgi Dctii w`tK Ztj Nvo I gv\_v `ß nvtZi ga" w`tq XyvKtq mvgtb Mwotq co | tgtStZ cv ~úk®Kivi mvt\_ mvt\_ tmvRv ntq `wovI | wWMewwR LvI qvi mgq gv\_v hvtZ gwUtZ ev g"vtU bv jvtM, tm w`tK tLqvj ivLtZ nte |



m¤§L wWMewR

kvi xwi K wk $\P$ v I  $^{-1}$ v $^{-1}$  9

L. wcQtb wWMewR: th w`tK wWMewR t`te tmw`tK wcQb wdti `wovI | Zvici kixiUv µgvMZ wbPzKti Ges kixtii wcQtbi Ask A\_@r wbZx^tgtStZ ev g"vtU jvMvi mvt\_ mvt\_ `ß nvtZi ZvjyKwa eivei g"vtUi `ß cvtk ivL Ges kixiUv wcQtb Nymitq bvI | tKvgi t\_tK kixtii Dci Ask Ztj `wovevi Rb" cv gwwU tQwqvi mvt\_ mvt\_ nvtZi Zvjyw`tq gwwUtZ av°v`vI Ges tmvRv ntq `wovI |



wcQtb wWMewwR

M. cvk, MewR: mx9 www.ewRi b~vq g~vtUi GK c@tš-`wotq kixtii GK cvtk ev Kuta fi Kti KvZ Ae-'vq kixiUv Nyvitq bvl | tNvivi mgq AvNvZ Govtbvi Rb~ GK nvZ g~vtUi Dci tctZ t`te Ges cv gv\_vi KvtQ tUtb tbte | Gevi Kutai mvnvth~ GKcvtk Mwotq wMtq DtV `wovI |

N. WvBf tivj: Aí `i t\_tK t`Śwotq Gtm `ß cvtq fi Kti A\_@ tUK Ad wbtq mvt\_ mvt\_ `ß nvZ eivei mvgtb ewotq cwbtZ Suc t`qvi Kvq`vq k\b"jwdtq DtV mvgtb hvte| `ß Kbß fuR Kti nvtZi Zvj\Z fi Kti `ß nvtZi gvtS Nvo XuKtq m¤\$L wWMewRi gtZv `Z kixi Nuitq tbte| Zvici cvtqi Dci fi Kti `wotq hvte| c\u00fctg t`o t\_tK `ß d\u00fc DPzgwUtZ nuUztMto emv tKvtbv tLjvi m½x wKsev m½xi DPzKti aiv jvdvtbvi `wo (wī<wcstivc) e"envi Kti Zvi Dci w`tq GB wWMewwR Abkxjb Kiv hvq|

KvR-1: GW#Kkbvj wRqb"w÷ ej‡Z Kx eß? eY®v Ki

KvR-2: dxU tivj t`lqvi tKŠkj tjv cÖ k® Ki | KvR-3: Wbf tivj Kxfvte w`tZ nq Kti t`LvI?

#### Abkxi bx

#### kb '- 'vb cɨY Ktiv:

- 1. cPv-ewm Lvevi ÑÑÑÑÑÑÑÑÑÑÑÑ Ki‡Z nţe|
- 2. Lvevi ÑÑÑÑÑÑÑÑÑÑÑÑÑÑÑÑÑ I axţi axţi tLtZ nq
- 3. †ewk by †L‡q ÑÑÑÑÑÑÑÑÑÑÑÑÑÑÑÑÑÑ Lvevi †L‡Z nq|
- 4. Lvevţi ÑÑÑÑÑÑÑÑÑÑÑÑÑÑÑÑÑ cwi qvY ţewk vKţi fvţi v nq l
- 5. wbgwgZ I ÑÑÑÑÑÑÑÑÑÑÑÑÑÑÑÑÑÑ mgţg Lvevi †L‡Z ng|

10 kixiPPPI mȳ′Rxeb

#### wb‡Pi †KvbwU miÄvgmn I miÄvgwenxb e¨vqvg Zv Avjv`v Ki :

mi Avgmn e vqvg mi Avgwenxb e vqvq Kenn ev † Kvg‡ii e "vqvg 1. 1. KbB †f‡0 e‡m e vqvg 2. 2. W < WCS 3. 3. tivgvb wis 4. 4. wdkRwe m¤§L wWMewR WvBf tivj

#### mwVK Dˇi wUK wPý`vI :

- 1. AwZwi³ e"vqvg ¬^v‡¬'"i Rb"—
- (K)  $\P$ wZKi (L)  $\P$ wZKviK bq (M) fv‡jv (N) AwaK fv‡jv
- 2. fivtctU e vqvg Kitj —
- (K) fvtjv (L) tctU e v nq (M)  $\P wZKi$  (N) AwZ D E g
- 3. GWtKkbvj wRgb"w++ i Dtik" Kx?
  - K. ewj ô †`n MVb
  - L. †`n I g‡bi mmgwšZ e vqvg
  - M. A‡1/2i Db**q**b
  - N. kvi xwi K Db**q**b

#### msw¶ß ckæ

- 1. WwBf tivtji tKŠkj tjv gvtV Kti t`LvI |
- 2. Qwei mvnv‡h" DËi ţjv wj L:
  - K) `B nuUji Ae 'vb tKgb nte?
  - L) `B nvZ †Kv\_vq \_vK‡e?
  - M) Nvo I gv\_v †Kv\_vq ivL‡Z n‡e?



সম্মুখ ডিগবাজি

#### iPbvgjK cke

- 1. wcQb wWMewnR †`qvi †KŠkj¸‡jv†`LvI I eY®v Ki|
- 2. AwZwi³e"vqv‡gi KzdjeY®v Ki|

#### wØZxq Aa "vq

## -<vDwUs | Mvj MvBwWs



-<vDU I Mvj 9MvBW

~<vDU I Mvj®MvBW wekp~vcx GKwU mgvR‡mevgj K AivR‰WZK Avt>`vjb| e,,Uk tmbvewnbxi ZrKvjxb tjdtUb~vU tRbvtij ievU<sup>©</sup>w÷tdbkb w \ j W e v t Wb cv I tqj 1907 mv tj wk¶vcÖZôv‡b ~<vDwUs Ges 1910 mv‡j Mvj®MvB‡Wi aviYv cëZ® K‡ib| wk¶vcůZôv‡b ~<vDwUs Kvh@g Avi¤¢ Kivi AvtM -<vDwUstq Ask wbtZ cvti, Ggb eqtmi tQtjtgtqt`i Pwn`v wetePbv Kti wZwb wKQz eB cKvk K‡ib| Zvi g‡a" ~<vDU kvLvi Rb" 1908 mvţj Ô-<vDwUs di eţqRÕ Ges Mvj ® MvBW Av‡>`vj‡bi Rb¨ ÔMvj® MvBiwVsÕ I Ôw` ey-evW°eyKÕ Ab Zg | AvšR@ZK ~<vDU Avt>`vjtbi mvt\_ msMwZ titL evsjvt`tkl evsjvt`k -<vDUm ∣ Mvj®MvB‡Wi Kg¶v‡Êi mPbv nq| gwj³ht×i gva~tg evsjvt`k <sup>-</sup>^vaxbZv jvf Kivi ci 1972 mv‡j evsjv‡`‡k ~<vDwUs I Mvj@MvBwWs-Gi Kvh@g iiynq| `t-' gvbeZvi tmev,

^bwZK gj~†ev‡ai Db**q**b, myngwš^Z kvixwiK I gvbwnK weKvk, agxq mnbkxjZv ct~wZ ¸Yvewj AR¶bi mnvqK kw³ wn‡m‡e ~<vDwUs I Mvj°MvBwWs Av‡>`vjb wekp~vcx ctksmbxq fwgKv †i‡L P‡j‡Q| evsjv‡`kI GB Kvhp‡q MweZ Askx`vi wn‡m‡e B‡Zvg‡a~mK‡ji`wó AvKIŸKi‡Z m¶q n‡q‡Q|

#### G Aa "vg tk‡l Avgiv -

- 1 | ~ < vDwUs Kvhptgi ~ ^xKwZ ~ fc wewfbœe vR AR®mn ~ < vDU I Mvj @MvBwWs Gi Ab vb ~ Kgmrv e vL v KitZ cvie |
- 3 | c0\_ugK wPwKrmvi c0qvM m¤ú‡K®Rvbe Ges h\_vmg‡q c0qvRbxq wm×vš-wb‡Z cvie|
- 4| ^`bw`b Rxetb NtU hvl qv wKQz`NØbvq c0 wqK wPwKrmvi tmev c0qvM KitZ cvie

12 ~vDwUs I Mvj 9MvBwWs

#### cvV-1: -<vDU | Mvj @WvB‡Wi msw¶ß BwZnvm | KgmnwP

j W°e v t Wb c v I t q j w Q t j b ~ < v D U A v t > v j t b i c l Z ô v Z v | w Z w b 1857 m v t j B s j v t Ê R b t M b Y K t i b | ~ < v D w C × w Z t Z B s j v t Ê i e v j K t i P w t î i wew f b œ y v e w j i D b w Z † t L w Z w b m v i v we t k | GB A v t > v j b Q w o t q † b | 1920 m v t j we k | ~ < v D U m s ~ v M w Z n q | we k | ~ < v D U m s ~ v i c l a v b K v h l q m p R v i j v t Ê i i v R a v b x t R t b f v q A e w ~ z | ~ < v D U G K w U we k R b x b A i v R w b w Z K m g v R t m e v g j K h p A v t > v j b | ~ < v D U A v t > v j t b i j ¶ B n t ~ 0 G K w U ~ < v D U t K P w i Î e v b K t i A v ` k e g v b t I i e v s w i Z K i v | ~ < v D u U s K v h l a v Z w b f l i e v s w i z K i v | ~ < v D U m w g w Z M V b K i v n q | e v s j v t ` k ~ v a x b n e v i c i G t ` t k i ~ < v D U A v t > v j b G K b Z b i e t b q | 1972 m v t j i 9 G w c l X v K v q t ` t k i ~ < v D U t b Z v t ` i G K m v a v i Y m f v q e v s j v t ` k e q ~ < v D U m w g w Z M v Z n q | 1974 m v t j i 1 R t b w e k | ~ < v D U m s ~ v e v s j v t ` k e q ~ < v D U m w g w Z K v E v j v t ` k e q ~ < v D U m w g w Z i b v g e ` j K t i l l e v s j v t ` k ~ < v D U l i v L v n q | e v s j v t ` t k i i v R a v b x X v K v i K v K i v B t j G i c l b v b K v h l q A e w ~ z | t R j v k n i M v R x c t i A ` t i t g š P v t K ~ < v D U l R v Z x q c l k ¶ Y t K · ` A e w ~ z Z | t R j v k n i M v R x c t i A ` t i t g š P v t K ~ < v D t U R v Z x q c l k ¶ Y t K · ` A e w ~ z Z |

 $ievU^{\circ}w \div tdbkb w^{-}\underbrace{j W^{\circ}e^{-v}tWb \ cvI tqj \ Mvj ^{\circ}MvBtWiI \ c ^{\circ}ZovZv| \ wZwb ^{-}<vDtUi \ Abjie tgtqt`i \ Rb^{-}I \ Avjv`v \ Kg^{\circ}mwP w`tq bvg w`tj b MvBwWs| AZci GB Avt>`vj btK GwMtq tbqvi Rb^{-}Zvi tevb GMtbmtK `wqZi c ^{\circ}vb Ktib| GMtbm Zvi `wqZi h_vh_fvte cvj b Kti GB Avt>`vj btK Rbwc ^{\circ}Kti tZvtj b|$ 

#### MvBwWs tgtgt`itK

- K) e'w3ZiweKv‡k mvnvh' K‡i |
- L) mvgwRK †PZbv‡eva ew× K‡i |
- M) `wqZkxj bvMwiK nevi wk¶v†`q|
- N) tmevgjK KvR Kivi wk¶v†`q|
- 0) weţk¦i wewfbœt`ţki he m¤cövţqi mvţ\_ eÜZ; ~′vcţb mvnvh" Kţi|

evsjvt`k ^vaxb nevi ci 1972 mvtj RvZxq msm` Mvj@MvBW G`vtmwmtqkbtK GKwU RvZxq msMVb wntmte ^xKwZ w`tq AvBb cvm Kti | 1973 mvtj GB msMVb wek¦ Mvj@MvBW G`vtmwmtqktbi cY9½ m`m`c` jvfKti | evsjvt`tki ivRavbx XvKvi teBwj tivtW Mvj@MvBtWi cBvb Kvh9q Aew~'Z|

Muj MwBW KgmwP: Muj MwBtWi AvU`dv KgmwPi gva"tg Zviv MwBwWs DctfwM Kti Ges mef¶tî wbtRt`itK htMvcthwMx Kti Mto †Zvtj |

#### KgmmP:

- 1 | Pwiî MVb
- 2 | wb‡R‡K Rvbv|
- 3 | mRbkxj ¶gZv AR® |
- 4 | ci -úi‡K Rvbv|
- 5 | tmevetZ cÖ'Z vKv|
- 6 | MnK‡g9lbcYZv AR19 |
- 7 | evBţii RMr t\_tK Avb>` jvf|

kvi wi K wk $\P$ v I  $^{-1}$ V $^{-1}$ "

#### 8 | kvixwiK Dchy3Zvjvf|

GB Kg@nwPi gva"tg MvBtWiv wbtRt`itK Dchy³ bwNwiK wntmte Mto †Zvtj | G¸tjv mgvZv, mjbwNwiK, môvi cůZ fw³ Ges Actii g½jvt\_°wbtRi ¬^v\_Z"vtMi gtbvewË RwMtq †Zvtj | ¬^v¬'"m¤§Z I Avb>``vqK KvRKtgP gva"tg MvBwWs tgtqt`i gvbwmK ¸Yvewj weKvk I wPšvkw³i DrKI@nvatb mvnvh" Kti |

KvR-1: wk¶K c#kwE‡ii gva¨‡g wk¶v\_A‡`i KvQ †\_‡K ¯<vDwUs I Mvj MvB‡Wi BwZnvm m¤ú‡K®Rvbvi †Póv Ki‡eb|

KvR-3: ewoi KvR wntmte -<vDwUs I Mvj 9MvBwWs-Gi msw¶ß BwZnvm wjtL AvbtZ ejteb|

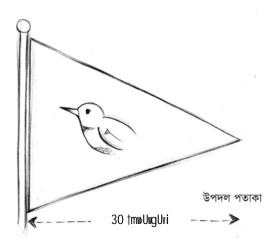
KvR-4: †cv÷vi AvKv‡i KgmwPwj‡L Avb‡Z ej‡eb|

#### $cVV-2 : Dc^{j} c \times WZ I e^{v}R c \times WZ$

Dc`j c×wZ tQtjtgtqt`i mtPZb Kivi Rb¨ metPtq DËg cšv| j W°e vtWb cvItqj me@0g fvitZ G c×wZ PvjyKtib| Zvici GB c×wZ cw\_exi me ~vDU `tji gta¨ cPjb Kiv nq| Dc`j c×wZi gj DtÏk¨ nt"Q tQtjtgtqt`itK wbR `wvqZim×vtK°mtPZb Kti tZvjv| G c×wZi gva¨tg c0dZwU tQtjtgtq e0stZ cvti, Zvi Dc`tji DbwZi Rb¨ Zvi GKwU wetkI fwgKv AvtQ| Dc`j c×wZi gva¨tg c0dZwU t cvDU I MvBW tKv¤úwb ch\$-Zvi gZvgZ tc0dQvtZ cvti Ges Zviv Zvt`i wbR Dc`tji myeav Abþnvqx tKv¤úwbi Kvhtgg, cwi Kí bv BZ¨wv evt-ewqZ KitZ cvti| G c×wZtZ AskMbY Kti c0dZwU t-cvDU I MvBW AvZ\bb f\text{Pkxj ntq} 1tV Ges wbR cwi evi I mgvR mt4t5 wqZkxj nq|

Dc`j cZvKv : Dc`j cZvKv  $\widehat{wl}$ ‡KvYvKvi mv`v Rwgbwewkó n‡e| cZvKvi gvSLv‡b Dc`‡ji bv‡gi c $\widehat{w}$ v/cwLi g $\underline{v}$ Lg $\widehat{E}$ j AwKv  $\underline{v}$ K‡e| Dc`‡ji cZvKv` $\widehat{E}$   $\overline{v}$ VDU j $\widehat{w}$ Vi mgvb| Dc`j cZvKvi cwi gvc n‡e 30  $\overline{v}$ 

-<vDU e'vR : e'vR n‡jv -<vDUţ` i †hwM'Zvi cyj -<vi |
-<vDU †cvkvţKi wbw`& -'vţb wbw`& e'vR cwiavţbi
dţj †Kvb --ţii -<vDU Zv kbv³ Kiv hvq | e'vR `ß
cKvi | h\_v- K) `¶Zv e'vR L) cvi`wkZv e'vR |</pre>



K) `¶Zv e¨vR : `¶Zv e¨vR cÖvb Kiv nq wbw` & Kv‡Ri Rb¨ wbw` & cvV¨μ‡gi Dci `¶Zv AR\bi ¬′xKwZ ¬′i є| `¶Zv e¨vR n‡jv PviwU−

- (1) m = vR (2)  $+ v\hat{E}W = vR$  (3)  $+ c\hat{u}tM\hat{b}n = vR I$  (4)  $+ c\hat{v}RI$
- (1) m`m" e"vR -<vDU kv‡U® evg c‡K‡Ui gvSLv‡b †mjvB K‡i ci‡Z nq|
- (2) ÷ vÊwVe vR kutuP evg nvZvi futRi Ici KbB I Kutai gvSLvtb tmjvB Kti citZ nq|
- (3) toùtMôn e vR ÷ vÊW°e v‡Ri ''‡j jwVv‡Z nq|
- (4) mwwfm e vR tc@tMon e vR mwitq Zvi vtb tmjvB Kti citZ nq|
- L) cvi`wkZv e`vR : wewfbœwel‡qi Dci cvi`wkZv AR\bi ^xKwZ cÖv‡bi wb`k\b n‡jv cvi`wkZv e`vR| eZ\bvac{g}v‡b we‡kl `yuU e`vR M\bar motor tgvU 9vU M\bar cvi`wkZv e`v‡Ri msL`v 101vU| cvi`wkZv e`vR -<vDU kv‡U\bar Wb nv‡Zi Kb\b I Ku‡ai gv‡S tmjvB K‡i ci‡Z nq|

KvR-1: wk¶K wk¶v\_@`i wbKU†\_tK Dc`j c×wZ I e vR c×wZ c#kwEtii gva tg Rvbteb|

KvR-2 : ewoi KvR wntmte Dc`j c×wZ wjtL AvbtZ ejteb|

KvR-3: †cv÷vi AvKv‡i e¨vR c×wZi bvq;‡jv wj‡L Avb‡Z ej‡eb∣

KvR-4: †Kvb e vR †Kv\_vq ci‡Z nq Zv Awfbq K‡i †`Lv‡Z ej‡eb|

#### cvV-3: cvBI wbgwis I j "wks

- K) cvBI wbqwis:  $-\langle vDwUstq$  nvBwKs Kivi mgq Zweyevm Kvtj woi wewfbatMtiv  $mxitK^{Q}Rvbv$  I ev
- 1) `woi wewfb@Astki byg Ryby I wPwýZ KitZ cyiv|
- 2) `woi mvnvth"I wbgwjwLZ tMtiv\_tjv ewatZ Ges G\_tjvi mwVK e"envi cÖk® KitZ cviv-tevjvBb-Ab-w`-evBU, K"vUm-c, Wej wkUteÊ, w<del>"ew</del>i wkUteÊ, dvqvi g"vb tPqvi bU BZ"w`|
- 3) mwVK cüv‡Pi mvnv‡h" PviwU jwwV w`‡q GKUv cZvKv `Ê ^Zwi Ki‡Z cviv|
- 4) mwVK cüv‡Pi mvnv‡h" GKUv wkqvi †jM ^Zwi Ki‡Z cviv|

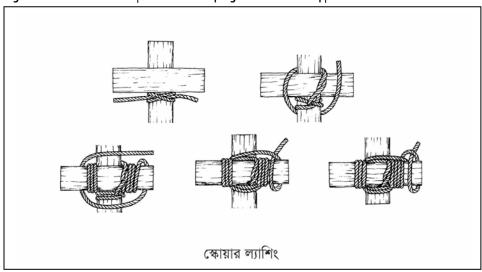
Miv‡RU: Zwe‡Z emev‡mi Rbi Mv‡Qi Wvj ev ewk wì‡q ^Zwi Avmevecî ivLvi eie-'v‡K Miv‡RU e‡j|

- L) j "wwks: `ywZbUv ewk ev KvV‡K GKţÎ ewavi Rb" `wo w`tq tcwP‡q ewav‡K j "wwks etj | mvaviYZ cyj, Ni, gvPv, M"v‡RU ^Zwi I Mv‡Q †VKv †`qvi mgq j "wwks e"envi Kiv nq| j "wwks A‡bK cokvi \_vK‡j I ~vDU‡`i cougK chpq Pvi cokvi j "wwks‡qi couqvRb nq| h\_v -
- 1 | † wqvi j wks (Square Lashing) |
- 2 | WyqvtMvbvj j wks (Diagonal Lashing) |
- 3 | †cvj GÊ wkqvi j "wks (Pole and Sheer Lashing) |
- 4 | wdMvi Ae GBU j "wks (Figure of eight Lashing) |

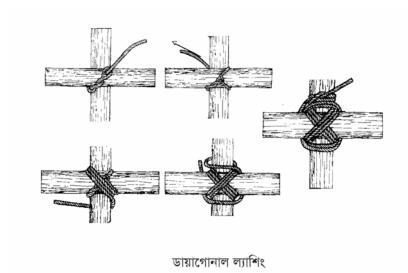
† < vqvi j "wks (**Square Lashing**) : GKNU entki Dci AvtiKNU enk AvovAvnofvte titl k³ Kti enavi Rb "th tcP t`qv nq, ZvtK t < vqvi j "wks etj | GKNU enk gwUi Ici Lvovfvte titl Aci GKNU entki UKiv H

kvi wi K wk $\P$ v I  $^{-1}$ v $^{-1}$  15

eutki Dci AvovAwwo ivLtZ nte| th eukwU Lvovfvte AvtQ, tmwU nt"Q tcvj Ges th eukwU AvovAwwofvte ivLv ntqtQ, tmwU nt"Q evi| Gevi tcvj Ges evi thLvtb wgwj Z ntqtQ, tmLvtb GKwU eowk tMtiv w`tq H`woi Pj gvb AsktK evtii Dci w`tq tcvj tK tcQb w`K  $\uparrow$ \_tK tcwPtq Avevi evtii Dci ivLtZ nte| Gfvte `woi Pj gvb Ask w`tq 8/10 evi tcvj Ges evi tK Rwotq tcP w`tZ nte| tcvj tcPvtbvi mgq `wo tcvtj i wbtP Ges Dctii c@tg th`yU tcP t`qv ntqwQj, cieZPtcP\_tpv yWi gta w`tZ nte| hvtZ Avt-— Avt-— tcvtj i GB Astki duK eÜ ntq hvq| tcvj Ges evi 8/10 evi tcPvtbv tkl ntj `woi Pj gvb Ask w`tq tcvj Ges evtii gvtS th`wo AvtQ, ZvtK k³ Kti AšZ ct¶ 3/4 evi tcPvtZ nte| GB tcPvtbvtK dwcs (Frapping) etj| dwcs hZ k³ nte, j`wks ZZ gReyZ nte| dwcs t`qv tkl ntj `woi Pj gvb Ask w`tq evti eowk tMtiv w`tq teta j`wks tkl KitZ nte| Gfvte t-<vqvi j`wks evatZ nq|



WydytMybyj j wks (**Diagonal Lashing**): GKwU `ÊţK Aci GKwU `ţÊi Dci †KybyKwbfyţe ev ¸Yb wPţýi (×) gţZv Ae vq ivLţZ nţe | Gfyţe ivLvi dţj `yU `Ê thLyţb GKwÎ Z nţqţQ, †mLyţb GKwU Mwo Uyby †Mţiv w`ţZ nţe | `woi Pjgyb Asţki w`K cwieZfb Kţi evBţii w`K w`ţq `ß `ÊţK GKţÎ 5/7 evi



16 -< vDwUs I Mvj 9MvBwWs

tcPv‡Z n‡e| Gici th w`K t\_‡K Av‡M tcPv‡bv n‡q‡Q Zvi wecixZ w`K t\_‡K `ß `ʇK GKwÎ Z K‡i Av‡Mi g‡Zv 5/7 evi tcP w`‡Z n‡e| Gfv‡e `ß w`K w`‡q tcPv‡bv tkl n‡j `‡Êi gv‡S `woi th Ask Av‡Q, Zv‡K `woi Pjgvb Ask w`‡q k³ K‡i AšZc‡¶ 3/4 evi tcP w`‡Z n‡e| GB tcP hZ k³ n‡e j "wks ZZ gRevZ n‡e| dwcs t`qv tkl n‡j th‡Kv‡bv GKwU `‡Êi mv‡\_ `woi Pjgvb Ask w`‡q eowk tM‡iv w`‡q j "wks tkl Ki‡Z n‡e| Gfv‡e Wvqv‡Mvbvj j "wks eva‡Z nq|

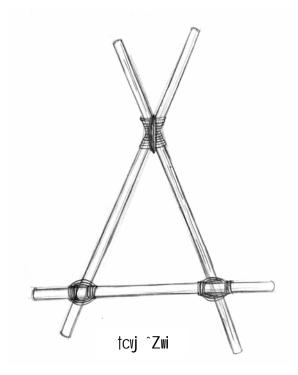
KvR-1: Kv‡m e¨enwiKfv‡e wk¶v\_@`i †¯<vqvi j¨wwks | Wvqv‡Mvbvj j¨wwks te¢a t`Lv‡Z ej‡eb| KvR-2: ewoi KvR wn‡m‡e `yU `ʇK w`‡q †¯<vivi j¨wks | Wvqv‡Mvbvj j¨wks te¢a wb‡q Avm‡Z ej‡eb|

#### cvV-4: †cvj GÊ wkqvi I wdMvi Ae GBU j¨wwks

tcvj GÊ wkqvi j¨wks (**Pole and Shear Lashing**): tcvj GÊ wkqvi j¨wks‡K A‡b‡K ¨i aywkqvi j¨wks e‡j | `yd ewk ev KvV‡K GK‡Î ewavi Rb¨ th tcP t`qv nq, Zv‡K tcvj GÊ wkqvi j¨wks e‡j | `yd ewk ev `ʇK GKţÎ te¢ta Zv‡K cvqv wn‡m‡e e¨envi Kivi Rb¨ A\_ev GKwU ewk ev `ʇK Aci GKwU ewk ev `‡Êi mv‡\_ te¢ta Zv‡K j ¤^v Kivi Rb¨ GB j¨wks e¨envi Kiv nq | hLb `yd ewk ev `ʇK gv\_vi w`‡K GKţÎ te¢ta Zv‡K cvqv wn‡m‡e e¨envi Kiv nq, ZLb Zv‡K wkqvi tjM e‡j | hLb GKwU ewk ev `ʇK Aci GKwU ewk ev `‡Êi mv‡\_ GKţÎ te¢ta j ¤^v Kiv nq ZLb Zv‡K tcvj e‡j | g½Z wkqvi tjM Ges tcvj ^Zwii Rb¨ GKB j¨wks e¨envi Kiv nq | wkqvi tjM I tcvj Kivi Rb¨ GKB j¨wks e¨envi Kiv n‡j I G‡`i g‡a¨ cv\_fk¨ Av‡Q | thgb- wkqvi tjM ^Zwii Rb¨ dwcs w`‡Z nq | Avi tcvj ^Zwii Rb¨ dwcs w`‡Z nq bv | Kxfv‡e tcvj ^Zwi I

wkqvi tjM ^Zwi Kiv nq Zv wb‡gœc\_\_Kfv‡e t`qv n‡jv –

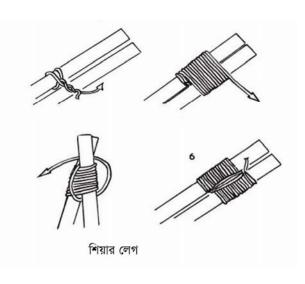
tcvj ^Zwi : GKwU `ţÊi gv\_vq 20 tm:wg: wbţP Aci GKwU `ţÊi wbţPi Ask ţiţL `ÊţK AvţMi `ţÊi cvkvcwk ţiţL wbţP ivLv `ÊwU, thLvţb Icţii `ţÊi mvţ\_ wgwj Z nţqtQ, Zvi 4/5 tm:wg: Icţi `wU `ÊţK GKwÎ Z Kţi tmLvţb `woi w⁻'i Ask w`ţq eowk tMţiv ewaţZ nţe| eowk tMţiv ewavi ci `woi w⁻'ic@ţši th evowZ Ask t\_ţK hvţe, ZvţK `woi Pjgvb Asţki mvţ\_ tcwPţq w`ţZ nţe| Zvici Pjgvb Ask w`ţq `wU `Ê GKÎ Kţi wbţPi w`K t\_ţK Dcţii w`ţK tcP w`ţZ nţe| 8/10 evi tcP t`lqv nţq tMţj `ÊţK GKÎ Kţi eowk tMţiv w`ţq j¨wks tkl KiţZ nţe| `yU `Ê thLvţb ci¯úţii mvţ\_ wgwj Z nţqtQ, tmLvţb Avjv`v



Avjv`vj"wıks w`‡j myeav nq Ges euab Lye k3 nq| `Ê †Kv‡bvw`‡K †n‡j hvI qvi mx0ebv\_v‡K bv| Gfv‡e †cvj ^Zwi i Rb" †cvj j"wıks eua‡Z nq|

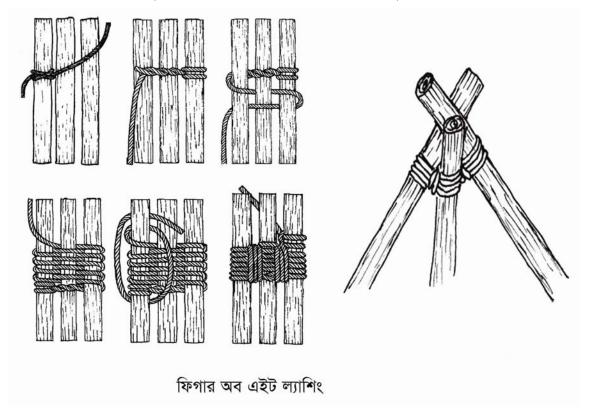
 $kvi wi K wk \P v I ^- v^- ''$ 

wkqvi tj M ^Zwi : `yU ewk ev `tÊi wbtPi Ask
mgvšivj ti Lvq titL `yU `ÊtK GKÎ Kti
Ictii thtKvtbv `tÊ `woi w''i cÖš-w'tq
GKwU eowk tMtiv w`tZ nte| eowk tMtiv t`qvi
ci `woi w''icÖtši evowZ Ask t\_tK hvte,
ZvtK `woi Pjgvb Astki mvt\_ tcwPtq w`tZ
nte| Gevi `woi Pjgvb Ask w`tq `yU `ÊtK
GKÎ Kti tcwPtq wbP t\_tK Ictii w`tK thtZ
nte| j¶ ivLtZ nte th `yU `tÊi mvt\_ tcP
t`Iqvi mgq GKwU `woi mvt\_ thb Avti KwU
`wo tjtM \_vtK| GKwU `wo thb Avi GKwU
`woi Dci bv DtV| 8/10 evi tcP t`Iqv tkI



nţj `ß `ţÊi gvSLvţb `woi th Ask AvţQ, ZvţK `woi Pj gvb Ask w`ţq k³ Kţi AšZ cţ¶ 4/5 evi tcP w`ţZ nţe| `ß `ţÊi gvSLvţbi `woţK `woi Pj gvb Ask w`ţq tcPvţbvţK dwcs (Frapping) eţj | dwcs hZ gReyZ nţe j ïwks ZZ k³ nţe| dwcs ţ`qv tkl nţj c0ţg th `ţÊ eowk tMţiv w`ţq j ïwks ï iyKţiwQj Zvi wecixZ `ţÊ eowk tMţiv w`ţq j ïwks tkl KiţZ nţe| Gfvţe wkqvi tj M ^Zwi Kiv nq|

wdMvi Ae GBU j¨wwks (**Figure of Eight Lashing**) : wZbwU `‡Êi wb‡Pi Ask‡K GKB mgvš—ivj †iLvq †i‡L `Ê wZbwU‡K GKwUi cv‡k Avi GKwU ivL‡Z n‡e| `Ê wZbwU Lye KvQvKwwQ \_vK‡e| †h‡Kv‡bv `ywU `ʇK eowk †M‡iv w`‡q ewa‡Z n‡e| eowk †M‡ivi gv\_v †hb `‡Êi Dci \_v‡K| eowk †M‡iv ewavi ci `woi w⁻'i



cůtši th evowZ Ask t\_tK hvte, ZvtK `woi Pjgvb AsktK GKwU `Ê ev` w`tq cieZ®`ÊtK tcwPtq tcwPtq wbP t\_tK Dctii w`tK thtZ nte | Kgct¶ 5/7 evi `wo tcPvtbv tkl ntj th `tÊi mvt\_ cůg eowk tMtiv ewav ntqwQj tm `tÊi cvk®Z®`tÊi gvSLvtb `woi th Ask AvtQ tm `wotK `woi Pjgvb Ask w`tq cůtg Kgct¶ wZbevi tcP w`tZ nte | cieZ®tZ cvtki `ß `tÊi gvSLvtb `woi th Ask AvtQ ZvtK Avevi AvtMi gtZv Kti tcP w`tZ nte | Gfvte `woi Dci `wo w`tq tcP t`lqvtK dwwcs etj | dwwcs hZ k³ nte, j¨wks ZZ gReyZ nte | dwwcs t`qv tkl ntj eowk tMtiv w`tq j¨wks tkl KitZ nte | wZbwU `Ê ev ewktK GKtî teta wUcU ^Zwi Kivi Rb¨ wdMvi Ae GBU j¨wwks e¨envi Kiv nq |

KvR-1: Kv‡m e¨enwiKfv‡e wk¶v\_Av tcvj GÊ wkqvi j¨wks I wdMvi Ae GBU j¨wks K‡i t`Lv‡e| KvR-2: ewoi KvR wn‡m‡e tcvj GÊ wkqvi j¨wks I wdMvi Ae GBU j¨wks ^Zwi K‡i Avb‡Z ej‡eb|

#### cvV-5 : c0\_wgK wPwKrmv/c0Zweavb

cổ\_wgK wPwKrmv m¤ú‡K©Rvbvi Av‡M cổ\_wgK wPwKrmv Kx Zv †Zvgiv lô †kŵY‡Z aviYv †c‡q‡Qv| cổ\_wgK wPwKrmv ev cổZweavb wPwKrmvkv‡²¿i GKwU Ask| cổ\_wgK wPwKrmv n‡″Q nVvr †Kv‡bv cxov ev ^`e `Nਊbvq nv‡Zi Kv‡Qi wRwb‡mi Øviv†ivMx‡K cổ\_wgKfv‡e mvnvh" Kiv, hv‡Z Wv³vi Avmvi Av‡M †ivMxi Ae²′vi AebwZ bv N‡U ev RwUj Zv myó bv nq| A\_@r †h‡Kv‡bv AvKw¯\$K `Nਊbvq cổ\_g ï kỗ v Ges msw¶ß Dchý³ e¨e²′v MồnY Ki‡Z †h e¨e²′v MồnY Kiv nq, Zv‡K cổ\_wgK wPwKrmv / cổZweavb ej v nq|

 $i^3\PiY: i^3$  n‡jv GK clkvi Zij c`v\_ $\P$  Gi is jvj | wn‡gv‡Mweeb bvgK jvj iÄK c`v‡\_ $\P$  Dcw¯′vvZ‡Z i‡³i is jvj †`Lvq| kix‡ii †Kv‡bv ¯′v‡b AvNv‡Zi d‡j ev †K‡U †M‡j †h  $\P$ ‡Zi mwó nq, Ges †mB  $\P$ Z n‡Z †h i³ †ei nq, Zv‡K i³ $\PiY$  ev i³cvZ e‡j | wewfbdev‡e i³ $\PiY$  n‡Z cv‡i †hgb-

- 1| gyL w`tq i³ cov : gyLi wfZtii thtKvtbv Ask t\_tK i³cvZ ntj eid PlttZ nte| Zvntj i³cvZ eÜ nte| Gici tivMxtK wKQATY wekig wbtZ nte|
- 2| bvK w`tq i³ cov : AvNvZRwbZ ev Ab¨ tKvtbv KvitY Kvtiv bvK w`tq i³ cotZ ïiy Kitj Zr¶Yvr ZvtK wPZ Kti tkvqvtZ nte A\_ev ewmtq gv\_v tcOtbi w`tK tnwjtq ivLtZ nte| KvcotPvco wXjv Kti w`tZ nte| bvtKi mvgtb | Nvtoi wcOtb VvÊv Kgtcm w`tZ nte| ZLb gy\_w`tq kymKvh®vjvtZ nte| i³cvZ eÜ nevi cil wKOz¶Y bvtKi wO`tt\_ Ztjv w`tq ivLtZ nte|
- 3| kixtii †Kvtbv Ask †KtU †Mtj: KvUv ~'vbwU wKQATY cwi®<vi nvtZ †Ptc aitZ nte| i3 eÜ ntj e"vtÊR w`tq te**t**a ivLtZ nte| mvaviYZ wZbwU Drm †\_tK i3cvZ nq| h\_v-
- K) ^KwkK bwj (Capillary) -GKUvbv tm²tZi b¨vq i³ tei nq|
- L) wkiv (Vein) -MjMj Kti i³ tei ng |
- M) agbx (Artery) wdbwK w`tq i³ tei nq
- `N®bvqtewki fvMi³cvZnq^KwkKbwjt\_‡K|

kvi wi K wk $\P$ v I  $^{-1}$ V $^{-1}$  19

#### i³cv‡Zi c@\_wgK wPwKrmv:

- 1 | †ivMxtK emvtbv | †kvqvtbv hvq Ggb ~'vtb ~'vbvši KitZ nte | GtZ i3cvZ Avcbv-Avcwb Ktg hvte |
- 2| th -'vb ntZ i3cvZ nt"Q, tm -'vb ürwctÊi mgZvi Dci Ztj aitj i3cvZ AtbKUv Ktg hvte|
- 3| mvgvb" tK‡U tM‡j H ~'v‡b i 3 RgvU te**t**a Avcbv-Avcwb i 3 cvZ eÜ nq|
- 4| KvUv ''v‡b e,×v½•ji Pvc cÖqvM Ki‡j A‡bK mgq i³cvZ eÜ nq|
- 5 | AvnZ A‡½i bovPov eÜ Ki‡Z n‡e|
- 6| i³cvtZi ~'vtb eid e¨envi KitZ nte|
- 7 | i³cvZ eţÜi Rb¨cZ̈́°¶ I cţiv¶ Pvc w`ţZ nţe|
- 8 | ¶Z-'vb cwi®<vi Kvco ev e v‡ÊR w`tq evatZ nte |
- 9 | ZvovZwo Wv³v‡ii Kv‡Q ev nvmcvZv‡j wb‡Z n‡e|
- 10| tewk i³cvZ n‡j Undo¶KU e¨envi Ki‡Z n‡e| Undo¶KU A\_@n‡jv cijugK evab‡K Nyvi‡q Nyvi‡q k³ K‡i †Zvjv| ¶Z⁻′vb wXjv K‡i te¢ta Zvi wfZ‡i GKwU KwV ev tcwÝj XwK‡q w`‡q Av‡¯— Av‡¯— Nyiv‡j evabwU μgk k³ n‡q i³cvZ eÜ nq|

^e`ÿwZK kK: AvRKvj kni I kniZwj Ges MůtgI ^e`ÿwZK e¨e¯′v Pvjyi‡q‡Q| eÊ RvqMvq AcwiKwíZ I A‰afvte we`ÿr msthvM t`qvi dtj thtKvtbv mgq ZwoZvnZ ntq `N®bv NUtZ cvti| we`ÿrcëvn ev KvtixU `ß ai‡bi| Gwm (AC) KvtixU I wWwm (DC) KvtixU| Gwm KvtixU AvKI® Kti tUtb tbq| wWwm KvtixU ïay av°v gvti| tm Rb¨ Gwm KvtixU tewk gvivZ\*K| tfRv Kvco ev MvtQi mvt\_ we`ÿrcëvtni msthvtMi dtj `N®bv NtU\_vtK| G¸tjv ¯úk©Kitj wbtRI ZwoZvnZ ntq hvIqvi Avk1/4v\_vtK|

we`ÿr¯ú,ó n‡j : Kv‡iv kix‡i we`ÿ‡Zi Zvi Rwo‡q tM‡j ev tKD we`ÿr¯ú,ó n‡j mv‡\_ mv‡\_ tgBb mßP eÜ K‡i w`‡Z n‡e| †Kv‡bv Kvi‡Y mßP eÜ Ki‡Z bv cvi‡j ïKbv KvV w`‡q Zv‡K av°v w`‡q Qwo‡q w`‡Z n‡e| KvV bv tc‡j ïKbv Kvco nv‡Z Rwo‡q av°v w`‡Z n‡e| KL‡bv Lwj nv‡Z ai‡j we`ÿr¯ú,ó n‡q wec` NU‡Z cv‡i | KL‡bv Mv‡q cwb t`‡e bv| kļmwµqv bv Pj‡j Kwlgfv‡e kļmKvh°Pvjv‡Z n‡e| ZvovZwo Wv³vi t`Lv‡Z n‡e|

gPKvtbv: nvtoi msthvM ~'vb mÂvjtbi mgq nVvr gPtK tMtj ev te¢k tMtj msthvM ~'vb msj MæmæqvZtšji Ici Uvb cto ev wQ¢o wMtq th Amyeavi myó nq Zvtk gPKvtbv etj | e`vqvg, tLjvajv ev Ab`vb` KvRKtgP mgq gvtS gvtS e`\_v cvIqv ev gPKvtbv A~\vfweK bq | Gme `NPbvi Rb` wPwKrmvi c¢qvRb cto | wKšy-Atbk mgq wPwKrmtki mvnvh` tctZ t`wi nq | ZvB AvnZ e`w³i cougk wPwKrmvi `ikvi nq |

#### j¶Y:

- 1 | AvnZ 'vtb e \_v AbyFZ nte |
- 2 | mwÜ<sup>-</sup>'j d**‡**j hv‡e |
- 3 | AvnZ 'vb weeY\text{\$^n\$tq bxj ev jvj AvKvi aviY Ki\$te}
- 4 | "\rf wek fite bovPov Kiv hute by Ges Pjvi mgq AvnZ "'vtb e"\_v eyx cute |

20 -< vDwUs I Mvj 9MvBwWs

#### c@\_wgK wPwKrmv:

- 1 | AvNv‡Zi mv‡\_ mv‡\_ AvnZ ~'v‡b VvÊv cwwb ev eid jwNv‡bvi e¨e~'v Ki‡Z n‡e |
- 2 | AvnZ 'vbwU bovPov Ki‡Z † `qv hv‡e bv |
- 3 | gPKvtbv 'vbvU h\_vm = Avivg \ vgK Ae 'vg ivLtZ nte |
- 4 | AvnZ 'v‡b nvofvOvi e "v‡ÊR c#qvM Ki‡Z n‡e |
- 5| e v‡ÊR me mgq wfRv ivLţe| m¤@ nţj eid jvMvţe|
- 6| gvsm‡cwk gPtK tMtj †ivMxtK mnR I Avivg`vqK Ae-'vq †kvqvtbvi e"e-'v KitZ nte|
- 7| hZ ZvovZwo m¤€ †ivMx‡K Wv³vi ev nvmcvZv‡j cvVvevi e¨e⁻′v Ki‡Z n‡e|

Kugo, `skb ev ûj †dvUv : wewfb@Ršy-Ru‡buquţii Kugo †\_‡K mweavb \_vK‡Z nţe| cwMjv Kktţii gţLi jvjvq RjvZsK ţivţMi RxevYy\_v‡K| Ktki, †bKţo, wkqvj, †ewR I QtPv-Giv mevB RjvZsK ţivţMi RxevYy enb Kţi| Giv Kugovţj muţ\_ muţ\_ AvnZ ¯'vţb Kve@K mvevb ev cwwb w`ţq AvnZ ¯'vbwU fvţjvfvţe aţq †dj‡Z nţe Ges ZvovZwwo numcvZvţj cvVvevi e¨e¯'v Ki‡Z nţe| weovţji bL Lye Zx¶è| weovj †\_‡K wWcţ\_wiqv ţivM nq| weQv, †g\$gwQ I fxgiţji Kugo gvivZ\K| Giv ûj dwUţq weI \_wj †\_‡K ûţji cţ\_ weI †Xţj ţ`q| AţbK mgq ûjwU tfţO wMţq `skb ¯'vţb ţj‡M \_vţK| hw` ûj dţU \_vţK Zţe ¶|ţZi Pviw`‡K Pvc w`ţq ûjwU tei Kţi wbţZ nţe|

mytc Kvgovtj Kvgtoi RvqMvi Dcti Kvco ev `wo w`tq k³ Kti ewatZ nte| Gi dtj i³cëvn eÜ nte Ges wel QovtZ cvite bv| avivtjv te\hvitq AvnZ RvqMv GKUzMfxi Kti tKtU (Avav tm: wg:) i³ tei Kti tdjtZ nte| 30 wgwbtUi tewk mgq teta ivLv hvte bv| tewk mgq teta ivLtj i³ PjvPj eÜ ntq hvlqvi dtj wbtPi Astk cPb aitZ cvti| hZ ZvovZwo m¤@ wPwKrmtKi wbKU ev nvmcvZvtj wbtq thtZ nte|

- 1 | KLbB †PvL KPj v‡bv hv‡e bv |
- 2 | †Pv‡L cwbi SvcUv w`‡Z n‡e |
- 3 | tivMxtK Avtjvi w`tK gyL Kti emmtq AvjtZvfvte tPvtLi `yuU cvZv Lytj t`LtZ nte | tPvtL tKvtbv e-' tjtM\_vKtj iyqvtji tKvbv wfwRtq AvjtZvfvte e#k Kivi gtZv jwMtq e-' wU Ztj wbtZ nte |
- 4 | ivmvqwbK wKQztPvtL cotj `pa w`tq atq tdjtZ nte |
- 5 | ZvovZwo Wv³vi ev nvmcvZvtj cvVvevi e"e" v Ki‡Z nte |

Kvtb wKQztMtj : Kvtb tcvKvgvKo Xtk tMtj mwilvi tZj ev Awjf Itqj Aí cwigvY tXtj w`tj tcvKv gti hvq Ges tei ntq Avtm | ZvQvov gvte\$\int RvZxq tKvtbv wKQzXtk tMtj bovPov bv Kti \int Z Wv3vtii wbKU ev nvmcvZvtj cvVvtbvi e"e" v wbtZ nte |

AÁVB Ae¯'vq KiYxq: †`‡ni mwqyZ‡šį Kv‡Ri weNœNU‡j †ivMxi Ávb jy3 n‡q hvq| G Ae¯'v‡K AÁVB ev A‡PZb Ae¯'v e‡j| wewfbœKvi‡Y gvbyl AÁVB nq thgb- tivMekZ, `NYBbvRwbZ, welwµqvRwbZ Ges Zv‡ci ZviZg¨RwbZ Kvi‡Y|

kvi xwi K wk $\P$ v I  $^{-1}$ V $^{-1}$  21

- 1 | tivMxtK dwKv I evqycY® 'vtb wbtq thtZ nte |
- 2 | † i vMxi Rvgv Kvco, RvZv, † gvRv, Kwl g`uZ\_vK‡j Lţj wb‡Z n‡e |
- 3| tivMxtK wPr Kti ïBtq chte¶Y Kti Kx KiYxq Zv w⁻'i KitZ nte|
- 4 | tjvK tewk ntj mivtZ nte |
- 5| i³¶iY nţj Zvi cÖZweavb Ki‡Z nţe|
- 6 | †Kv‡bv D‡ËRK cvbxq ev Lv` LvI qv‡bv hv‡e bv |
- 7 | wel RwbZ Kvi‡Y AÁvb n‡j †ivMx‡K Dcp K‡i eţKi wb‡P ewijk w`‡q ïB‡q w`‡Z n‡e | †ivMxi `yU cv nuUz n‡Z Dcţii w`‡K fuR Kţi w`‡Z nţe |
- 8 | Ávb †divi Rb" g‡L cwwbi SvcUv w` ‡Z n‡e | Mig Pv ev Kwd LvI qv‡Z n‡e |
- 9| hZ ZvovZwo m¤€ †ivMx‡K Wv³v‡ii Kv‡Q wb‡Z n‡e|
- KvR-1: ewotz, ewoi evBti, tLjvi gvtV NUtz cvti Ggb KtqKvU `NObvi bvg wk¶v\_A wbKU ntz cotkwEtii gva~tg tRtb tbteb|
- KvR-2: †Ljvi gv‡V AvNvZ †c‡q bvK w`‡q i $^3$  co‡j c $^0$ \_wgK wPwKrmv Kxfv‡e †`I qv nq Zv wk $^0$ V\_ $^2$ 1 i eY $^0$ V Ki‡Z ej‡eb|
- KvR-3: MZ wZb gvtm †Zvgvt`i ewotZ tKD `N@bvq ctowQj wK bv Zv wbtPi QtK ciY Ki (`jMZ KvR)

cwiev‡ii m`m¨	`Nூbvi aiY
1  gv	
2   evev	
3   tevb	
4  fvB	
5   MnKgx <sup>©</sup>	

#### Abkxj bx

#### ïb - 'vb cɨY K‡iv:

- 1. jWe vtWb cvl tqj NNNNNNN mvtj -<vDU Ges NNNNNN mvtj Mvj MvBtWi cëZB Ktib
- 2. < vDwUs GKwU wekRbxb AivR%bwZK mgvRtmevgjK ÑÑÑÑÑÑ |
- 3. ÑÑÑÑÑÑÑ mưţi evsivţ`ţk ~<vDwUs I Mvj 9MvBţWi Kvh@q ïi"nq|
- 4. nvBwKs Kivi mgq Zwejevm Kv‡j `woi wewfbœtM‡iv m¤ú‡K®Rvbv I ev⁻—‡e c‡qvM Kiv‡K ÑÑÑÑÑēţj |
- 5. cvMjv KKtii gtli jvjvq ÑÑÑÑÑÑÑÑÑ ţivtMi RxevYy\_vtK|

-<vDwUs I Mvj @MvBwWs

#### mw/K kã wgjvl :

K.`¶ZvI cvi`wkØv	K. cvBI wbqwis
L. wdMvi Ae GBU	L. †PvL KPj v‡e bv
M. M"v‡R‡Ui mgwóMZ i€	M. j "wks
N. †Pv‡L wKQzco‡j	N. e <sup>w</sup> P

#### mwVK Dˇi wUK wPý `vI:

- 1. KZ mv‡j ¯<vDvUs I Mvj ¶WBW cNZwôZ nq?
- K) 1860 I 1862 mv‡j L) 1900 I 1915 mv‡j
- M) 1907 I 1910 mvtj N) 1911 I 1913 mvtj
- 2. evsjvt`k ~<vDU wek¦ms~'vi KZZg m`m~?
  - K) 120Zg
- L) 105Zg
- M) 107Zg
- N) 110Zg

- 3. Myj MB‡Wi KgMP KqwU?
  - K) 10<sub>W</sub>U
- L) 6NU
- M) 7wU
- N) 8wU

#### msw¶ß ckœ:

- 1. -<vDU I Mvj MvBW KvtK etj?
- 2. cÖ\_ugK cÖZweavb ev wPwKrmv Kx
- 3. Myj MB#Wi KgMP Kx?
- 4. evsj vt`tk KLb ~<vDU I Mvj @MvBW c@ZwôZ nq?

#### iPbvgjK ckæ

- 1. wdMvi Ae GBU j "wkswU eY®v Ki|
- 2. gP‡K tM‡j Kxfv‡e cÖ\_wgK cÖZweavb Kiv hvq|
- 3. welv³ tcvKvgvKo I KKtii Kvgtoi cü\_wgK cüZweavb eY®v Ki|

#### ZZxq Aa¨vq

## -^v-'"weÁvb cwiwPwZ I -^v-'"tmev

evsjvt`tk gv`K`te"i e"envi w`b w`b ew× cvt"Q| gv`K`e" tmetbi dtj AvR wKtkvi-wKtkvixmn AtbtKi Rxeb bó ntq hvt"Q| wKtkvi-wKtkvix hviv gv`K`e" tmeb Kti Zviv tjLvcovq AgtbvthvMx ntq cto| AtbtK tjLvcov tQto t`q I wewfb@AcivagjK KgRvtÊ Rwotq cto| thme `e" tmeb Kitj gvbţli kvixwiK I gvbwmK Ae'vi Ici ¶wZKi côfve cto I tbwZevPK cwieZ® NtU Ges G¸tjvi cůZ Avmw³ Rtbł, tm¸tjvB ntjv gv`K`e"|



#### G Aa vq tktl Avgiv -

- 1. gv`K`e I gv`Kvm³ nIqvi KviY Rvb‡Z cvie
- 2. e w³, cwievi I mgv‡R gv ‡Ki cwiYwZ e vL v Ki‡Z cvie
- 3. agcvb I gv`‡Ki wel‡q cÖZ‡ivagjK e¨e¯′v MÖn‡Y m¶g ne|
- 4. agcvb I gv`‡Ki cwiYwZ Dcjwä K‡i cwikxwjZ Rxebhvc‡b DØyk ne∣

#### cvV-1: gv K I gv Kvmw3

wetki wewfbœt tki b vq evsjyt tkl gy tki e envi DtømRbK nyti ewx cylqvi Kyity cwievi Z\_v mgytRi me fti RbMY Dwøme mgeqmx ev Lyivc mncvVxt i cyj we cto `Ktkyti gy`K tmetb AyKó ntg Ges gy`K Mbtyi dtj tkygjgwZ wki -wktkyit i Rxeb bó ntg | thme 'e tmeb Kitj gybţli kyixwi K I gybwmK Ae vi Ici ¶wZKi côve cto Ges Aymw³ Rtb\tm\_tjvB gy`K'e | thgb - MwRv, tntivBb BZ wi | gy`K tmeb Kitj tj Lycovq gb etm by, wewfbœaitbi AmygwRK I Acivagj K KytR Rwotq cto | dtj gy`KtmebKvix wbtRi thgb ¶wZ ntg, tZgwb ¶wZMÖ -ntg Zvi cwievi I mgyR | Aygiv meyB IIţai myt\_ cwi wPZ | tKytby Amt ntj Wy³ytii civgk@Abhyqx Aygiv IIpa LyB | tKytby tKytby IIpatK Ayevi e envi MZ Kyity gy`K`e ejv nq | Wy³ytii civgk@Qyov tKytby IIpa tLtj Ges Gi côv Aymw³ Rb\ttj tm IIpa gy`K`te Ayl Zyq cto |

hviv gv`K`ë" tmeb Kţi, gv`K`ţe"i cNZ Zvţ`i kvixwiK I gvbwmK wbfPkxjZvi mywó nq | dţj gv`ţKi cNZ thgb Zvţ`i ZxeªAvKIP mywó nq, tZgwb gv`K`ë" MNbţYi cwigvY w`ţb w`ţb ewx cvq | hw` tKvţbv KviYekZ Zviv gv`K`ë" tmeb KiţZ bv cvţi, ZLb Zvţ`i gţa" gv`ţKi AfveRwbZ KviţY wewfb@DcmM® t`Lv t`q | thgb-tgRvR wLUwgţU nq, ¶av Kţg hvq Ges AvPiY AvµgYvZ¥K nţq DţV |

gy`Kymw³: tZygiv tZygyt`i Avtkcytk AtbKtK agcyb KitZ t`tLv| wewo, wmMytiU, Pily I ZygytKi tawqy tmeb KivtK etj agcyb| AvRKyj wKtkvi-wKtkvix I hpemgytRi gta" agcybmn Ab'yb" tbkvi côZ Aymw³ ew× tctqtQ| gv`Kymw³ ntjv gybwmK I kvixwiK ¶wZKi GK côuqv, hv tmebKvix I gv`tKi cvi⁻úwiK wuqvi dtj mwó nq| gv`Kymw³ gv`tKi côZ tbkvtK eßvq| th me `è" tmeb Kitj Aymw³ mwó nq, Áyb I ¬\$wZkw³ Ktg hvq, tm²tjv ntjv gv`K`è"| Avgyt`i t`tk thme gv`K`è" e"eüZ nt"Q, tm²tjv ntjv: wmMytiU, wewo, Zygyk, Pily, g`, MwRv, Pim, fvs, gwiRyqybv, tntivBb, tdbwmwWj, Bqvev BZ'wv`| KLtbv KLtbv IIpaI gv`K`è" wntmte e"eüZ nq| G²tjvi gta" Ntgi IIpaB tewk| tZygyt`i wK KLtbv gtb ntqtQ tKb gv`Kymw³ nq? tKb Zviv tbkv Kti? Gi côavb KviY ntjv gv`Kvm³ m½xt`i mvt\_ tgjvtgkv| AtbK mgq wKtkvi-wKtkvixiv bv et\$B ev Gi Lvivc w`K²tjv bv tRtbB eÜz-evÜe I mncvVxt`i côivPbvq wbZvš-tKšZnjetk gv`K`è" tmeb Kti Ges Zv cti Avmw³tZ cwiYZ nq| t`Lv hvq, gv`K tmetbi dtj gv`tKi côZ côPÊ kvixwiK I gvbwmK wbf®Zv myó nq| GKevi gv`tKi tbkv ntj t`n I gtb fxIY côZwuqv `Zwi nq| dtj tm evti evti gv`K MônY Kti| Gme e"w³i gv`Kvmw³ wbivgtqi gta" wPwKrmv, gtbwPwKrmv Ges mngwgØv côqvRb|

```
      KvR-1: gv` K`ë" †me‡b gvbţli AvPi‡Y Kx cwieZ® N‡U?

      1:

      2:

      3:

      4:

      KvR-2: wb‡Pi `ë"¸‡j v‡K †Kb gv` K`ë" ej ?

      MuRv, †dbwmwWj, Awwdg, †n‡i vBb
```

kvi wi K wk¶v I ^\r'' 25

#### cvV-2: e'w3, cwievi I mgv‡R qv\‡Ki cwiYwZ

c‡e® cv‡V †Zvgiv gv`K`è" m¤ú‡K©†R‡bQ| gv`K`è" gvbţli Rb" AZ"š-¶wZKi| GB gv`‡Ki cifve tmebKvixi kixi-gb Ges cwievi I mgv‡Ri Dci cţo| Gevi gv`K MinţYi ¶wZKi cifve mgv‡R Kxfvţe Gi cilZdjb NţU Zv†R‡b bvl|

- 1. gv`K`è gvbwmK ^\t-''i ¶wZ Kti| thgb- tkLvi I KvR Kivi ¶gZv nwm Kti, AvtetMi Ici cðfve we-vi Kti| Pvc mn Kivi Ges wm×vš-tbIqvi ¶gZv‡K e vnZ Kti| ZvQvov gvbwmK cxob ewotq t`q|
- 2. gv`K`ë cwiewiK I mgvRRxe‡b bvbviKg hš}v`vqK cðrve td‡j | gv`K`ë tmebKvix cwiev‡ii Ab m`m"‡`i mv‡\_ DMÖAvPiY K‡i | cwiev‡ii gvbwmK kwiš-webó nq |
- 3. G<sub>s</sub>tjvi e envi kvixwiK my Zvi t¶tî gvivZ\K côfve we vi Kti| gv`K`è tmeb gw \\*\* i mwqtKvltK aŸsm Kti, m² AbyfwZ Kwgtqt`q Ges Lv`vf`vm bó Kti|
- 4. wKQzwKQzgv`K GBPAvBwf I †ncvUvBwUm-we Gi msµg‡Yi AvksKv ewo‡q†`q|
- 5. gv`K MintYi dtj G\_tjvi Ici tmebKvixi kvixwiK I gvbwmK wbfPZv ^Zwi nq, hv t\_tK mntR gyv³ cvIqv hvq bv|
- 6. gv`K MồnY Ki‡j th mg¯-RwUj tivM n‡Z cv‡i Zvi g‡a¨ i‡q‡Q Lv`¨bvjx I kļvmbvjxi K¨vÝvi, wjfvi wm‡iwwmm I ev#Y tcënvi|
- 7. ZvgvK I ZvgvKRvZxq gv`K kixtii †fZi cůZvU i³bwj‡Z cův‡ni myró Kţi | Gi dţj wewfbœA½-cůZ¨‡½i i³ PjvPj Kţg hvq, KLţbv i³ PjvPj G‡KevţiB eÜ nţq hvq, KLţbv ev i³bwj †d‡U hvq | dţj nvU°GUvK I teƁb †÷łK nţZ cvţi |
- 8. G Qvov hviv `xNmgq ati agcvb Kti Zvt`i klmZtši ¶wZ nq|
- 9. gv`K µ‡q Aww\_R ¶wZ nq| tbkvi UvKvi Rb" cwiev‡i Pvc mwó K‡i, KL‡bv KL‡bv AvµgY K‡i, iv¯ĺv-Nv‡U wQbZvB K‡i UvKv-cqmv I gvjcl jly K‡i| tbkvMÖ-e"w³i wPwKrmvi LiP thvMv‡Z wM‡q msmv‡i Afve †`Lv †`q| tZvgiv agcvb I gv`K`‡e"i Kzdj ‡jv Rvb‡j| Gme ¶wZKi w`K ‡jv cwievi I mgvR‡K aÿsm K‡i td‡j| tmRb" gv`K`è" I agcvb t\_‡K ï ay wb‡R‡K weiZ ivL‡jB Pj‡e bv, eÜrevÜe, mncvVxmn Avkcv‡ki tjvKRb‡K G t\_‡K weiZ ivL‡Z n‡e| Gm‡ei Kzdj m¤ú‡K®mKj‡K Rvbv‡Z n‡e Ges G ‡jv tmeb bv Ki‡Z DØyk Ki‡Z n‡e|

#### KvR-1: qv`K`& MbtYi PviwU Kzdj tjL

- 1.
- 2.
- 3.
- 4.

 $KvR-2: Dc_{i}^{\dagger}v^{3} \ Kdj_{j}^{\dagger}v^{i} \ g_{a}^{\dagger} \ thw \ me_{i}^{\dagger}P_{i}^{\dagger}q \ g_{v}^{i}v^{2} \ K \ g_{b}^{\dagger} \ nq, \ thw \ c_{0}^{\dagger}_{i}^{\dagger}g, \ G_{i}^{\dagger} \ c_{i}^{\dagger} \ \mu g_{v}^{\dagger}s^{\dagger}_{i}^{\dagger}q \ Ab^{"}vb^{"} \ Kd_{j}^{\dagger}i \ Zw_{j}^{\dagger}Kv_{i}^{\dagger}Zw_{j}^{\dagger}$ 

cvV-3: gv`Kvm³ nlqvi t¶tî mgeqmxt`i cërve

tZvgiv tRtbQ gv`Kvm³ e`w³ Zvi e`w³MZ, cwiewiK I mvgwwRK Rxetb AciYxq ¶wZ etq Avtb| wetkI Kti wKtkvi-wKtkvixiv AtbK mgq mgeqmx I eÜt`i cvj wq cto Ges tKŠZnjekZ gv`Kvm³ nq| GQvov GKRb e`w³i gv`Kvm³ nIqvi AviI wKQz KviY AvtQ| thgb- th cwievtii gv-evevi gta` mym¤úK®\_vtK bv ev gv-evevi weevnwet"Q` NtU, tm cwievtii mšvtbiv AtbK mgq wec\_Mvgx ntq gv`K MồY Kti| `tl, Kó, nZvkv, e`\_Zv fţj \_vKvi Rb`I AtbtK gv`K MồY Kti| cwievtii evev-gv ev Ab` tKvtbv m`m` hw` tbkvRvZxq `è` tmeb Kti, Zvntj tmB cwievtii mšvtbiv mntRB gv`Kvm³ ntZ cvti| Avevi AwffvetKi ciktqI Ggb ntZ cvti| t`tki mxgvš-GjvKvq mntRB gv`K`è` cvIqv hvq| H me GjvKvi gv`K e`emvqxiv Ab`t`i gv`K`è` MồtY bvbvfvte cij ka Kti| GB cij vftb ctoI AtbtK gv`Kvm³ nq|

B`vbxs cvov-gnj ve wKQz wKQz † vKwwb Ges ew + AtbtK gv K e tKbvtePv Kti | ZvivI wewfboevte Ab tK gv K MônY KitZ côfweZ Kti | fqsKi ntjI mZ th wewfboewk¶vcôdZôvtb G i Kg wPî t Lv hvq | Gfvte GKRb e w bvbvfvte gv K MônY KitZ DrmwnZ nt Q | gv Kvm³ nIqvi t¶tî mgeqmx, e Üz, mncvVx I m½x-mv\_xt i côfve metPtq tewk | eqtmwÜ Kvtj tQtjtgtqiv w tbi AwaKvsk mgqB < tj Ges e Üz ev m½x-mv\_xt i mvt\_ KvUvq | m½x-mv\_xt i tKD hw gv tK Avm³ nq, Zvntj Zvi côtivPbvq ev wbtRiv tKŠZnjekZ gv K tmeb Kti Zvntj tm axti axti gv Kvm³ ntq cto | e Üz ev mv\_xt i G aitbi Kcôfve t\_tK gy³ \_vKvi Rb côqvRb AvZ\mtPZbZv I pgtbvej |

KvR-1: gv`Kvm³ e"w³ cwi evi I mgv‡Ri AciYxq ¶wZ e‡q Av‡b | K\_wwU wK wVK? e"vL"v Ki |

#### cvV-4 : qv`Kvmw³ cÖZ‡iva

gy`Kumw³i ¶wZKi w`K¸ţjv †Zvgiv †R‡bQ| mgv‡R gv`Kvm³ţ`i msLïv w`b w`b ew× cvţ"Q| gv`‡Ki GB me®vkv Môm †\_‡K cwievi I mgv‡Ri m`m"ţ`i i¶v Ki‡Z wK KiYxq Zv †Zvgvţ`i Rvbv `iKvi| gv`Kvmw³ GKwU me®vkv welq| G †\_‡K i¶v Kivi †KŠkj mevi Rvbv c@qvRb| gv`Kvmw³i g‡Zv †Kv‡bv NUbv NUvi c‡eß Gi weiţ× eïw³MZ I mvgwwRK cöZţiva Mţo †Zvjv c@qvRb| †mB mvţ\_ Avm³ eïw³ţ`i wPwKrmv I cþe®m‡bi eïe⁻′v Kiv c@qvRb| Gevi †R‡b bvI gv`Kvm³ eïw³ †\_‡K wbR cwievi I mgvR‡K Kxfvţe i¶v Kiţe| G Rbï †Zvgiv hv KiţZ cvţiv -

- 1. gv`K`è" I Gi Ace"envi m¤ú‡K®GjvKvi hyemgvR‡K Ges RbMY‡K m‡PZb Kivi Rb" cvovq ev gnjvergv`Kwe‡ivax msMVb I Kve M‡o †Zvjv| Gme msMV‡bi gva"‡g gv`Kwe‡ivax ciPvi I i"wwj cwiPvjbv Kiv;
- 2. mvgwRK e¨w³Zį, mvsewìK, mwnwZ¨K, wk¶K, μxowe`, Rbwcថη Awf‡bZv, wkíx Gme e¨w³‡Zįi gv`Kwe‡ivax cӪviYvq AskMḃnY;
- 3. wk¶vcůZôvbmn Ab~vb~ cůZôv‡b qv` Kwe‡i vax Abyôv‡bi e~e~′v Kiv;
- 4. gmwRt`i BgvgMY Rgvi bvgvtRi LjZevq, gwb`ti I wMRfq clDvq Ges Ab¨vb¨ RvZxq w`etm gv`tKi Kzdj m¤útK@RbMYtK mtPZb KitZ cvtib;
- 5. < i KZ@¶ < i ‡K agcvb I gv` Kgy³ cůZôvb †NvIYv K‡i G msµvš-e¨e ′v wb‡Z cv‡i;
- 6. gv`‡Ki Kzdj I gv`Kvm³ e`w³i AvPi‡Yi cwieZ¶bi wewfbœv`K Z‡j aivi wKQzwPÎ †cv÷vi ¯<‡j, nvU-evRv‡i I įiÆcY© 'v‡b Uwv½‡q RbMY‡K m‡PZb Kiv|

kvi wi K wk $\P$ v I  $^{-1}$ v $^{-1}$  27

tZvgiv tRtbQ gv` Kvm³ e w³t` i gta AtbtK tKšZntji etk ev e ÜevÜet` i civPbvq gv` K` e tmeb i iy Kti | G Qvov i tqtQ nZvkv, GKtNtqwg, teKvi Zi, `tL, hš\v BZ`w` | Gme t\_tK cwi Î vtYi Rb hemgvtRi Rb tLjvajv, wPËwetbv` b I kvi wi K cik¶Ygj K Kvh@tgi e e 'v Ki v ciqvRb | hvi v GKevi gv` Kvm³ ntq ctotQ, Zvi v mntR gv` K tmetbi Af`vm QvotZ cvti bv | Gi Kvi Y ntj v, gv` K` e tmeb Ki v t\_tK wei Z \_vKtj B gv` K cwi Z wMRwbZ wewfb@DcmM®Zvt` i gta t` Lv hvq | G Kvi tY Avm³ e w³t` i `xN\$gqw` wPwKrmv Pwijtq thtZ cvitj Avm³ e w³i v Gi fqvenZv t\_tK i¶v tctZ cvti |

KvR-1: †Zvgvi GjvKvi gv` Kweţivax cPvi Pvjv‡Z Zwg Kx Kiţe? KvR-2: gv` Kweţivax i wwj‡Z cPvi Yvi Rb wZbwU † wAwb ^Zwi Ki |

#### cvV-5 : qv\K MbtYi Pvc tqvKvtejv

tZvgiv c‡e® cvVmg‡n gv`K`è", gv`K`te"i Kzlj Ges Gi cůZtiva m¤ú‡K®tRtbQ| Gevi gv`K`è" MồtYi Pvc Kxfvte tgvKvtejv Kite tm m¤ú‡K®Rvbv cůqvRb| gv`K`è" MồtY t\_‡K Kxfvte weiZ \_vKv`iKvi, Zvi tKškj tZvgvt`i Rvbv \_vKtj mntRB gv`Kgý³ Rxeb Mto ZjtZ cvite| tZvgvi eÜzevÜe ev mncvVx tKD gv`K`è" tmetbi Abţiva Kitj ev tZvgvi Ici Pvc cůqvM Kitj Zwg tKšktj Zv Gwotq hvte| gv`K`è" MồtYi cữ ve ev Pvc Govtbv I cữz vL"vtbi Dcvq-

- 1. thme RvqMvq gv`K`e" cvI qv hvq, tmme RvqMvq hv‡e bv| tmLv‡b wewfbœai‡bi Lvivc tjvK \_v‡K, Zviv †Zvgv‡K Gme gv`K Mbt¥Y Pvc myó Ki‡Z cv‡i|
- 2. hw` †Zvgvi †Kv‡bv eÜzev mncvVx †Zvgv‡K †Kv‡bv IIpa ev U¨ve‡jU w`‡q e‡j, GUv †L‡j Zwg evowZ kw³ cv‡e ev kixi Pv½v n‡e, ZLb Gme IIpa ev U¨ve‡jU MbY Ki‡e bv| e܇K Gme `‡e¨i Lvivc w`K m¤ú‡K®Rwwb‡q Zv‡KI Gme MbY †\_‡K weiZ ivLvi †Póv Ki‡e|
- 3. cvov / gnjv<del>q</del> ev -<tj hvivB gv`K`e" tmeb Kite, Zvt`i mvt\_ wgkte bv|
- 4. hw` †Kvtbv eÜz†ZvgvtK †`vKvtb etm AvÇv †`lqvi cÖve Kti, ZvtK webtqi mvt\_ ÔbvÕ ejte| H mgq covtj Lv ev †Lj vajv Kti mgq KvUvtbv AtbK fvtj v G K\_v Zvt`itK ewStq ejtZ nte|
- 5. agcvbmn th‡Kv‡bv qv`K`e" tmeb agkq`wó‡Z wbwl×| GB wb‡la tq‡b Pj‡e|
- 6. gvbţli Rxetb thtKvtbv mgq `tLRbK NUbv NUtZ cvti| Gi cNZKvi gv`K MồnY bq, wbtRi AvZ\ek\m I gtbvej AUD ivLtZ nte|
- 7. Aemi mgtqtLjvajv wKsev mvs~<wZK KgRvtÊ AskMbY Kti mgq KvUvte|
- 8. msmvti †QvULvtUv KvR Kti eot`itK mvnvh" Kite| Gi dtj cwiewiK eÜb `p nte|
- 9. eÜzevÜe wgţj mgvRţmevgj K KvţR AskMħY Kiţj mgvţRi DcKvi nţe| wbţRi gţb D``g I Avbţ>`i mÂvi nţe Ges gv` Kgŷ³\_vKţZ mnvqZv Kiţe|
- 10.  $MYm‡PZbZv myói j‡¶" gv`Kgy³ _vKvi wewfbæAbyôv‡b mwµq fwgKv ivL‡e|$

gv`K`e" wbqšį/ AvBb 1990 Ab†nvqx, gv`K MbY AvBbZ wbwl×| G m¤ú‡K©fv‡j vfv‡e Rvb‡e| Gme AvB‡b ewYZ kw"-Ab"‡`i‡K Rvbv‡e Ges gv`K MbY †\_‡K weiZ \_vK‡Z DrmwnZ Ki‡e|

KvR-1:†Zvgvi`BRb agcvqx eÜz†ZvgvtK agcvbïjyKivi Rb"Pvc w`‡"Q| Zng Kxfvte GB Pvc cñiZnZ Kiţe?
KvR-2: `rtL-Kó †fvjvi Rb", iwM-AwfgvbekZ wKsev †KšZnţji KviţY †Qţjţgtqiv gv`K MbntYi K\_v
fvte| wKšy-Zng w''i KţiţQ th †KvţbvfvţeB gv`K MbnY Kiţe bv| GB cwiw''wZ †gvKvţejvi Rb" Zng Kx
Kiţe?

#### Abkxj bx

#### ïb "- 'vb cɨY Ki :

- 1. thme `e` tmeb Kiţj tm¸ţjvi cŵZ Avmw³ Rţb¥, tm¸ţjvB nţjv ÑÑÑÑÑÑÑÑÑÑÑÑÑÑNÑNÑÑN
- 2. gv`K MbtYi dtj †KvgjgwZ wki-wKtkvit`i Rxeb ÑÑÑÑÑÑÑÑÑÑÑÑÑÑÑ nt"0|
- 3. gv`K`& wntmte e e uZ nq ÑÑÑÑÑÑÑÑÑÑÑÑÑÑÑÑ |
- 4. gv` Kvmw³ GKwU ÑÑÑÑÑÑÑÑÑÑÑÑÑÑÑÑÑÑÑ welq|
- 5. †KD gv`K`è" †me‡bi Abţiva ev Pvc c#qvM Kiţj Zug ÑÑÑÑÑÑÑ Zv Gwoţq hv‡e|

#### mw/K kã wgjvl :

K. MuRv GKıU	K. ¶wZKi
L. gv`K tmeb <sup>-</sup> /v‡ <sup>-</sup> ′"i Rb"	L. ZvgvKRvZxq gv`K
M. Pi U GKIU	M. †gRvR wLUwL‡U nq
N. gv` K Avµvš-e¨w³ i	N. agcvbRvZxq gv` K

#### mwVK Dˇi wUK wPý`vI:

- 1. wKţkvi-wKţkvixţ`i gv`Kvm³ nţZ ţewk c@FweZ Kţi-
  - K. gnj ₩ gv` K we‡µZv
  - L. we`"vj‡qi mncvVxiv
  - M. cvovi mgeqmx eÜiv
- 2. gv`Kvmţ3i cŴZ BwZevPK AvPiYej‡ZeySvq-
  - K. gv`Kvm³‡K AvB‡bi nv‡Z Z‡j †`Iqv
  - L. mgeqmx eÜz-evÜe †\_‡K wew'QbæKiv
  - M. N‡ii g‡a¨ AvU‡K ivLv
  - N. ag Rq Ab kvm tbi gva "tg c Fwe Z Kiv
- 3. gv`Kvm³ nlqvi KviY-
  - K. Rxetbi cůZ nZvkv
  - L. gv`‡Ki cůZ†KŠZnj
  - M. evev-gvi we‡"Q`
  - N. gv`K`‡e"i mnRjf"Zv

kvi wi K wk $\P$ v I  $^{-}$ v $^{-}$ ''

4. †Zvgvi GjvKvq hyeKt`i gv`tKi nvZ †\_tK i¶v Kivi Rb¨wbtPi †Kvb DcvqwU Zwg metPtq KvhRi gtb Ki?

- K. gv`‡Ki wei‡× m‡PZbZv mwói j‡¶" GjvKvq wbqwgZ mfv I mgv‡ek Kiv
- L. gv`Kvm³ e~w³‡`i‡K GjvKv Z~WM Ki‡Z ejv
- M. gv`Kvm³ cwievi‡K GjvKv Z¨vM Ki‡Z ejv
- N. wk¶vcÖZôvbmn wewfbœ¯′v‡b gv`Kvm³‡`i weiţ× wewfbœAbyôv‡bi e¨e¯′v Kiv

#### msw¶ß ckœ:

- 1. gv` K` e Kx?
- 2. tntivBb tKvb RvZxq gv`K`e"?
- 3. gv` Kvmw<sup>3</sup> Kx?

#### iPbvgjK ckæ

- 1. gv`K Mbn‡Yi †bwZevPK cbFve e¨vL¨v Ki|
- 2. gv`Kvm³ nlqvi KviY¸‡jv Av‡jvPbv Ki|
- 3. gv`Kvmw³ cÑZţivţai Dcvq¸ţjv eY®v Ki|

### PZ<u>ı</u> Aa vq eqtmwÜ Kv‡ji e w³MZ wbivc Ev

GKNU beRvZ wki evev-gv I cwiev‡ii m`m"‡`i Av`‡i, †m¢en eo ntq ItV | Gfvte evj "Kvj cvi ntq ^K‡kvţi c`vc♥ Kţi Ges Zvi `₽Z kvixwiK I gvbwmK weKvk N‡U| GB ^K‡kvi Kvj n‡″Q GKwU wkïi eqtmwÜKvj | G mqq wkk⊬ wKtkvit`i mȳ'fvte teto IVvi Rb¨ cwoKi I ~\v-'\"m\\Z L\\t\"i cvkvcwk c@qvRb wbivc` cwitek| cwievtii mKţji hZœl fvţjvevmvi qvtS th -\notation fweK -\notation -\notation Ki cwitetk GKWU wkkyteto ItV, tm cwitektK wbivc` cwitek ejv nq| G iKg cwitek Mto tZvjvi Rb gv-evevmn cwievţii Ab" m`m"ţ`i ¸iZcY® fwgKv i tqtQ | tKvtbv tKvtbv cwievti wbivc` cwitek t`Lv hvq bv| tmLvtb wkiiv Lvivc cwiw'wZi g‡LvgwL nq, eo‡`i wZi®vi, eKwb, qviwcU †L‡Z nq∣ Gi∈ AvPi‡Yi wkKvi ntj Zviv ftq Pc Kti \_vtK|



eqtmwÜKvţji evjK-ewjKv

G‡Z Zv‡`i kvixwiK I gvbwmK weKvk evavMÜ-nq| cwievi QvovI cvov-cůZ‡ekx, AvZ\kq^\Rb Øviv Ges we`"vj‡q wkkjv wbcxo‡bi wkKvi nq| Gi $\varepsilon$  cwiw"'wZ‡Z e"w³MZ wbivcËvi¶vi †K\\$kjmgn Rvbv LyeB cůqvRb| wkïiv cwievi †\_‡K, cwiev‡ii eo‡`i I ¯< $\sharp$ ji wk¶K‡`i KvQ †\_‡K wb‡R‡`i wbivc` ivLvi †K\\$kj †R‡b †b‡e| G Qvov evj"weevn, †h\\$ZiK, †h\\$bnqiwb ců¶vZi g‡Zv mvgwwRK mgm"v m=u‡KP Zviv Rvb‡e Ges wb‡R‡`i g‡a" m‡PZbZv myo Ki‡e|

#### G Aa vq tktl Avgiv-

- 1. eqtmwÜKvţj e w³MZ wbivc Ëvi ctqvRbxqZv e vL v KiţZ cvie
- 2. eqtmwÜKvtj e w³MZ wbivcËv i¶vi †Kškj tjvi gva tg wbtRtK mjw¶Z ivLtZ DØyk ne|
- 3. eqtmwÜKvţi wbivcËvnxbZvi wewfbœv`K eY®v KiţZ cvie
- 4. eqtmwÜKv‡j gvbwmK Pvc mvgjv‡bvi †KŠkj ¸‡jv e vL v Ki‡Z cvie|

kvi xwi K wk $\P$ v I  $^{-1}$ V $^{-1}$  31

### cW-1: e"w3MZ wbivcËv

cwievtii wbivc` cwitek wkï-wKtkviiv mỹ'fvte teto ItV| GRb" Zvt`i cycóKi I -^v-'m¤§Z Lv`" ctqvRb| wbivc` cwitek Mto tZvjvi Rb" gv-evewnn cwievtii mKj m`tm"i mnthwMZvcY®gtbvfvtei iKvi itqtQ| G mgq wkïiv Av`i, tmma, fvtjvevmvi ga" w`tq eo ntq ItV| wKšyAtbK cwievti wkkţ`i mvt\_ Lvivc AvPiY, thgb: eKvSKv, gviwcU, MvjvMwj Kiv nq| wkkyv ftq G aitbi kviwwiK I gvbwmK wbcxotbi K\_v KvDtK ejtZ cvti bv| tKvtbv tKvtbv wkï Avevi thšb wbhPZtbi wkKvi nq| wkïktg wbtqwRZt`i tejvq GUv t`Lv hvq| evj"weevn, th\$Zkcov wKtkvixt`i e"w³MZ wbivcEvi t¶tî eo evav| evj"weevn I th\$Zk cov AvFkvtc GKwU Avbx` D"Qj wKtkvixi mKj -^cctft0 hvq, tm kvixwiK, gvbwmK I mvgwwRK wbcxotbi wkKvi nq| e"w³MZ wbivcEvi weNceNUtj wkïiv AvZs¼MÖ-\_vtK Ges wbcxotbi -\$wZ Zvt`itK weIYckti tZvtj | Zviv nZvkvq tfvtM| dtj kvixwiK, gvbwmK I mvgwwRkfvte Zviv ¶wZMÖ- nq| wkïi e"w³MZ wbivcEv weNkvix Gme wbcxob t\_tK i¶v tctZ ntj wkkj gv-evev ev AwffveKtK G weItq mtPZb ntZ nte| Zviv thgb wbtRiv wki't`i wbhPZb Kite bv, tZgwb Atb"i wbhPZb t\_tK Zvt`itK i¶v Kite| thšb wbhPZtbi NUbv NUtj wKtkvix tgtqwU covZev` Kite, gv-evevtK Rwwbtq t`te, GKvKx tKv\_vI hvte bv|

KvR−1: kvixwiK, gvbwmK I †h\$b wbcxobgjK AvPi‡Yi GKwU ZwyjKv ^Zwi Ki		
wbcxob		
kvi xwi K	gvbwmK	†hŠb

KvR-2: wb‡Pi ckk@‡jvi DËi mZ" nţj ÔmÕ Ges wq\_"v nţj ÔwqÕ ţevţW9vjL|

- 1. GKwU wki cwievtii mKtji Av`i, hZœl fvtjvevmvi gta teto ItV
- 2. †Qţjţqţqiv ewoţZ ev ewoi evBţi KLţbv wbcxoţbi wkKvi ng bv
- 3. AtbK ewotZ tOtitatati eKwb tiqvI qviwcU Kivna
- 4. wki ktg wbtqwwRZ wki iv fvtjv cwitetk KvR Kti |
- 5. wbcxwoZ wkii iv Avb> -Djv#m tg‡Z \_v‡K |

## cvV-2: eqtmwÜKv‡j e¨w³MZ wbivcËvi¶vi †KŠkj

GKwU wkii cwicY<sup>9</sup>mȳ'Zvi mvṭ\_ mȳ i fvṭe teṭo I Vvi Rb ̈ Zvi evj ¨ I ˆKṭkvi Rxeb LyeB ¸iyZçY<sup>9</sup> GKmgq Zvi thgb cyxóKi I ¯^v̄''m¤\$Z Lvṭ` ¨i cðqvRb, †Zgwb `i Kvi GKwU wbivc` cwiṭeṭki | th cwiṭeṭk wki cwievṭii mKṭji Av`i-hZḍ fvṭjvevmvi gvṭS wbṭRṭK wbivc` †`LṭZ cvq bv, Ggb cwievṭi wki iv wbh@Zṭbi wkKvi nq | kvixwiK, gvbwmK I thŠb—GB wZb cðkvṭi wki iv wbh@ZZ nq | Aeß wki ṭ`i Dci Gie wbh@Zb fquen cðuZwuqvi myxó Kṭi | Zviv kvixwi Kfvṭe AvnZ nq, AvZs½Mð-nṭq cṭo, nZvkvq tfvṭM, Zvṭ`i gṭa ¨cðuZṭkva ˇúnv RvṭM, mgvRweṭivax AvPiṭY Af¨-nṭq DVṭZ cvṭi, Avnvi I Nṭgi e ¨vNvZ NṭU Ges cwi Yvṭg

^\r''nwwb nq| wki wbhPZtbi GB Kzlj m=\u00fctk\wki'-wKtkvit\i aviYv t\qvi c\u00fcqvRb| ewotZ evev-gv, AwffveK ev eoiv Ges we\u00fcvjtq wk\u00fcKwY GB aviYv w\u00ftz cvtib| Gi cvkvcwk Gme wbhPZtbi weitx Kxfvte e\u00fcw3MZ wbivc\u00ec\u00ec\u00fcvi\u00fqvRb| ewotZtbi wk\u00fqvrb GB aviYv w\u00ectz cvtib| Gi cvkvcwk Gme wbhPZtbi weitx Kxfvte e\u00fcw3MZ wbivc\u00ec\u00fcvi\u00fqvRb| ewotZtbi wk\u00fqvrb Kti wki'-wk\u00ec\u00eq ape cvievtii eq\u00ec\u00eq m\u00ec\u00eq tik Vuq| cwievtii evBti tKvtbv wki' wbhPZtbi wkKvi ntj H wki' gv-evev A\_ev cwievtii eq\u00ec\u00eq m\u00ec\u00eq tik Zv\u00ec\u00eq kvit V pc Kti bv t\_tK c\u00ed\u00ec\u00ec\u00ec\u00eq cwievtii eq\u00ec\u00ec m\u00ec\u00

<b>5</b> 0 .		• •
KvR-1:wb‡Piwelq¸‡jv‡KZnngKxfv‡e†`L‡e[wUK(√)wPý`vI]		
	GKgZ	GKgZ bq
1. wbh@zbKvixe~w3‡K †KD fv‡jve‡j bv		
2. wbh@ZZ wkï‡K mevB N;/v K‡i		
3. wbh@ZZ wkii cvtk `wovtZ nq		
4. wbh@ZZ wkï‡K Dcnvm Kiv wVK bq		
5. wloh@ZZ wki;‡K †mma-fv‡jvevmv w`‡q mȳ′ K‡i †Zvjv c#qvRb		
6. wbhPZ‡bi wel‡q gv-evev ev eo‡`i Rvbv‡Z n‡e		
7. wbh@bKvix†_‡K mZK©_vKv`iKvi		
8. wbh@ZZ wkï‡K mvnm I kw³ †hvWv‡Z n‡e		
KvR-2 : †Zvgvi †Kv‡bv eÜzwbhPZ‡bi wkKvi n‡j Zvi cñdZ mnvbyFwZ Rvbv‡Z Kx Kx Kiv cñqvRb? †Zvgvi		
†Kv‡bv mncvVxi mv‡_ Av‡jvPbv K‡i 3₩U Dcvq †j L		
1		

- 1.
- 2.
- 3.

# cvV-3: eqtmwÜKv‡j kvixwiK I gvbwmK wbcxob

wbivcËvnxbZvi wewfbœwìK: B"Qvi weiţ× KvDţK hwì tKvţbv KvR KiţZ eva Kiv nq Ges eva Zvgj Kfvţe tm KvR KiţZ wMţq hwì Zv Zvi kvixwiK ev gvbwmK ¶wZi KviY nţq `wovq, Zţe ZvţK wbcxob ej v hvq| thţKvţbv eqţmi tQţjţgţq, bvix-cjy ţK cPÊfvţe eKvewK Kiv, D"P-^ţi agK ţ`lqv, Acgvb Kiv, kvixwiKfvţe AvNvZ Kiv wKsev gviai Kiv- Gme KvR wbcxoţbi AvlZvq cţo| Avgvţ`i mgvţR wKţkvi eqţmi tQţjţgţqiv meţPţq ţewk wbcxoţbi wkKvi nq| kvixwiKfvţe AvNvZcØß nţj ZvţK kvixwiK wbcxob

kvi wi K wk $\P$ v I  $^{-1}$ v $^{-1}$  33

etj | th mg¯ — KvR, AvPiY, K\_v cðfwZ wkï-wKtkvitK gvbwmK Kó t`q Ges wkï-wKtkvit`i gvbwmK weKvktK evavMðr-Kti, ZvtK gvbwmK wbcxob etj | thgb: MnKgx@ntmte GKwU wkïtK Zvi mvta¨i AwZwi³ KvtR eva¨ Kiv Ges Zvi ct¶ tm KvR Kiv m¤ê bv ntj ZvtK eKwb t`lqv Qvovl Po-\_vào ev MnmvgMðw`tq AvNvZ Kiv nq| dtj H wkïwU kvixwiK I gvbwmKfvte ¶wZMðr-nq|

thổo wbcxob: thổo wbcxob AvţiKwU welq hv GKwU tgtqwkri AcţYxq ¶wZ Kţi | Amr Dţi ţkr Kvţiv kixţii †Kvb Asţk weţklZ tcvkvţk tXţk ivLv Asţk nvZ ev Ab †Kvţbv A½ w ţq ¯uk®ev AvNvZ Kiv nţj Zvţk thổo wbcxob ej v nq | thổo wbhPZţbi wkKvi GKRb wktkvixi cieZRZ ¯^vfweK Rxeţb AvmţZ Kó nq | tm e~w³MZ, cwwiewiK I mvgwwRKfvţe wbMnxZ nq | thổo wbcxotbi AvţiKwU Dţj L\textit hold nt iv evj weevn | Avgvt i † tk Atbk tQtj tgtqiB ~Ktkvţi wetq ntq hvq | AwffveKt i gta Zvt i tQtj tgtqt i Lye Kg eqtm wetq t qvi cêYZv t Lv hvq | AcwiYZ eqtm Giɛ wetqi NUbv NUtj Zvţk evj weevn etj | evsj vţ tk weevn wbe Üb AvBb Abynvţi 21 eQtii Kg eqmx GKRb tQtj Ges 18 eQtii Kg eqmx GKRb tgtqi wetq AvBbZ wbwl × | evj weevţni wewfbokviţYi gta Aw\_R I mvgwwRk wbivcĒvi Afve Ab Zg | Giɛ evj weevţni dtj wktkvixwU thổo wbhPZţbi wkKvi nq | thổo wgj tbi Rb m² ûYPvţe kvixwi K I gvbwmk c0 v wzi cţe GKvţR wj B nI qvq AcwiYZ eqtm mšvb aviţYi dtj gv I wki i ¯v ¯ v ¯ v mwb nq Ggb wk gzī NţU | eqtmwÜKvţj wktkvi wktkvi wt tk kvixwi k, gvbwmk I thổo wbcxotbi wetkI Kţi evj weevţni kzlj t\_tk wbivc ivLvi Rb c0 qvRbxq e e ¯ v MônY Kiv c0 qvRb | AvMygx w tbi mpvMwi k wntmte Mto tZvj vi Rb c0 kbb ¯v ¯ v ¯ v m ¶vi tkvtbv weKí tbB |

KvR-1: †QvU MpKgiPnkkynUi Dci wbcxobgjK AvPiY¸‡jv wb‡Pi Q‡K mvRvI-		
kvi xwi K wbcxob	gvbwmK wbcxob	
1. Po gvi v	1. evc-gv‡qi bv‡g Mwj †`qv	
2.	2.	
3.	3.	
4.	4.	

KvR-2 : kvixwiK I gvbwmK wbcxob t\_‡K wb‡R‡K i¶v Kivi Dcvq| wb‡P tj Lv Dcv‡qi g‡a¨ thUv mwVK Zvi Wv‡b wUK (√) wPý `vI , Avi fjj n‡j µm (×) wPý emvI |

- 1. wb‡Ri Kv‡R g‡bv‡hvMx nIqv|
- 2. †Kv‡bv mgm"v †`Lv w`‡j qv-evev ev Awffve‡Ki mv‡\_ Av‡jvPbv bv Kiv|
- 3. wbcxo‡bi cůZev` Kiv
- 4. cwiţek I cwiw 'wZ eţS KvR bv Kiv
- 5. AvZ\m\text{PZb nI qv}
- 6. AcwiYZ eqtm mšvb aviY Kitj qv I wkïi ¬^r"nwb nIqv|

KvR-3: evj "weevn KvtK etj Ges evj "weevtni dtj gv I wki i Kv ¶wZ nq- avivewnKfvte wj L

cvV-4: eqtmwÜKvtj ^`wnK I gvbwmK -'\v-'" wVK ivLvi Dcvq:

eqtmwÜKvtj wkï-wKtkvtiiv kvixwiKfvte fz teto ItV Gi mvt\_ mvt\_ Zvti gvbwmK weKvk NtU G mgtq Zvti Rb wbivc cwitek mwó Kiv Le cqvRb GB wbivc cwitetk Zviv kvixwiK, gvbwmK I thšb wbcxobgj³ Ae vq cyóKi Lv MhY Kti mpz I Avb gq Rxebhvcb KitZ cvti G mgtq kvixwiK mj zvi ijZi Le tewk KviY kixi mj zvKtj gtb Avb zvtK Ges covtj Lvq gb etm Avi hw kixi fvtjv bv zvtK Zvntj gb fvtjv zvtK bv dtj tKvtbv KvR mpzfvte m úbæKiv hvq bv mpzfvte KvR m úv tbi Rb Ges mtL - vzv k bv kvR mj fvte kvR mj ivLv mjzivs vz mvtZ AUU zvtK, tmw tk cqztKiB j¶ ivLv DwPz mj fvte Rxebhvcb KitZ ntj thgb kixtii hzæwbtz nq, tzgwb vz weavbmgn tgtb PjtZ nq Zvntj Avgvt Rvbv cqvRb, Kxfvte Avgiv mj zvKe A fv Kxfvte Avgiv vz i¶v Kie kixtii MVb I vz fweK ew eRvq ivLv Ges bxtivM vKvB nt v vz vz i¶v - vz i¶v r vz i¶v kie kixtii MVb I vz fweK ew eRvq ivLv Ges bxtivM vKvB nt v vz vz i¶v vz vz i¶v vz vz i¶v ivLvi wbqq tjv tgtb PjtZ nte l

^`wnK ~^v~'": wki'Kvj t\_tk thšebKvj chs-A\_P mvaviYZ 25 eQi chs-GKRb gvbţli t`n ew tctZ \_vtK| G mgqKvtj GB ^`wnK ew KLtbv axti, KLtbv `Z NtU| 25 t\_tk 40 eQi eqm chs-gvbţli ^`wnK ew w~'i \_vtK| Gici Avi ^`wnK ew NtU bv, eis ¶q ntZ i'iyKti| KvtRB thtKvb eqtmi GKRb e'w³i kixi my' ivLtZ ntj ZvtK eqtmvcthvMx myl g Lv` MbhtYi mvt\_ mvt\_ cqqvRbxq ~^v~'`wewa tgtb PjtZ nte| Zvntj tm Zvi ^`wnK ~v~'` wWK ivLtZ cvite|

^`wnK I gybwmK ^v-'" wVK ivLvi Dcvq : ^v-'"m¤§Z Rxebhvc‡bi Rb" e"w³MZ ^v-'"i¶vq m‡Pó n‡Z n‡e| G Rb" c½ţg ^v-'"m¤§Z Af"vm Mţo Zjj‡Z nţe| Avi Zv nţ"Q ^v-'"wewa tg‡b Pjv| ^v-'"welqK wbqgKvblp ev ^v-'"wewa i gţa" i‡q‡Q mgqvbpwZ'\nablav, cwi®<vi-cwi"Qb\nablav, c\nablav\nablav\nablav, c\nablav\

gybwmK Pvc I Zv mvgj vtbvi †KŠkj : gybwmK Akwš-\_vKtj bvbv KvitY gtbi I ci Pvc cto | gtbi I ci Pvc gybwmK -^vt-''i cðavb Ašivq | †Kvtbv KvtR e'\_\mathbb{n}j nZvkv Avtm, Avevi hv cvI qvi K\_v, Zv bv †ctj gtb Kó j vtM | Avevi wect`-Avct` gb Aw-'i ntq cto, KLtbv †Kvtbv `\notation \text{\text{0}}bvi Avk\forall\_4vq gtb AvZ\forall\_4 RvtM | Gfvte †KD †KD gybwmK Pvtc †fvtM | `xN\partial\_b ati gybwmK Pvtc \_vKtj †m Am\bar{y}' ntq cotZ cvti | gybwmK Pvc m\bar{w}o ntj Zv Govtbvi Rb'' c\bar{0}tg Gi KviY\text{1}v kbv\bar{3} KitZ nte | Gici Gme KviY `i Kivi Rb'' c\bar{0}qvRbxq Kg\bar{0}m\bar{0} M\bar{0}Y I ev--evqb KitZ nte | gtbvej eRvq ivLv, ^ah\bar{0}aviY Kiv, `pZvi mvt\_ mgm\bar{0}vi †gvKvtejv Kiv, \int i\bar{0}kb, wk\forall K, AwffveKt`i mvt\_ mivmwi K\_v ejv, mr e\bar{0}i mvnPth\bar{0}civgk\bar{0}Kiv c\bar{0}f\bar{0}Z e\bar{0}kiv c\bar{0}f\bar{0}Z

KvR-1 : kvixwiK I gvbwmK ¯^v¯′¨i¶weIqK KvR, wbqg, wewa BZ¨wv`i mvnv‡h¨ wb‡Pi QKwU c‡Y Ki-	
kvixwiK ⁻^v⁻′¨i¶welqK KvR/wewa	gvbwmK ^^v~'~i¶welqK KvR/wewa
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

KvR-2 : MZ wZb gv‡m †Zvgvi ewwo‡Z Ges ¯<‡j wewfb@NUbv N‡U‡Q  G¸‡jvi g‡a¨ †hme NUbv †Zvgvi		
gvbwmK Pvc mywó K‡i‡Q, †m¸‡jv wPvvýZ Ki Ges côlZwUi eYfðv wjL		
NUbvi D‡j <b>⊢</b>	NUbvi we⁻—wiZ eY®v	
1.	1.	
2.	2.	
3.	3.	

# Abykxj bx

### kb<sup>~-</sup>′wb cɨY Ki :

- 1.  $^-$ \v^-''Ki cwiţeţk GKwU wk'i ţeţo I‡V H cwiţekţK ÑÑÑÑÑÑÑÑÑÑÑÑÑÑ eţj |
- 2. wkī-wKţkviţ`i mȳ'fvţe ţeţo I Vvi Rb¨ ÑÑÑÑÑÑÑÑÑÑÑÑ Lv`¨ c#qvRb|
- 3. `N $\theta$ bvekZ †KD wbh $\theta$ Z‡bi wkKvi n‡j ÑÑÑÑÑÑÑÑ Kó jvN‡ei Rb" †m $\theta$  I fv‡jvevmv w`‡Z n‡e|
- 5. evsjv‡ ‡k GKwU †Q‡ji ÑÑÑÑÑÑÑ I †g‡qi ÑÑÑÑÑÑÑ eQi bv n‡j weevn Kiv AvBbZ wbwl  $\times$  | mwVK kã wgjvI :

1. my fvte teto I Vvi Rb ciqvRb	1. eKvewK, Acgvb I AvNvZ Kiv
2. eqtmıÜKvj	2. wbivc`cwi‡ek
3. wbcxob ej ‡Z ej6vq	3. ^K‡kvi Kvj
4. gvbwmK AkwwšvK‡j	4. Kv‡R gb e‡m bv

### mwk Dëţi wUK wPý`vI:

- 1. gvbwmK Pv‡ci KviY -
  - K. †Kvb wcquR‡bi mymsev` †c‡j |
  - L. cwi ev $\pm i$  gv-evev ev we` "vj $\pm qi$  wk $\P$ K ^elg"g $_j$ K AvPiY Ki $\pm j$ |
  - M. cix¶vi Rb¨cY°cÖʻwZ \_vKţj |
- 2. gvbwmK Pvc Gov‡Z n‡j -
  - K. gvbwmK Pvc Govevi eo Dcvq n‡"Q ^ah@viY|
  - L. †KD wei³ Kiţj ivM bv Kţi Zvi mvţ\_ mgţ\$vZv Kiv|
  - M. DËg ev Amr m½x evQvBţqi `iKvi tbB| mKţji mvţ\_ IVv emv Kiţe|

### msw¶ß ckœ

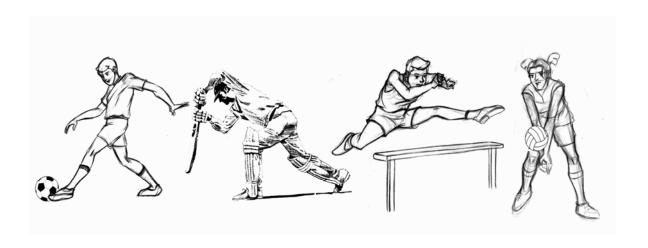
- 1. wbcxob Kx?
- 2. wbcxob KZ clkvi?
- 3. eqtmwÜKvj ej‡Z Kx eySvq?

### iPbvgjK ckæ

- 1. eqtmwÜKv‡j e~w³MZ wbivcËvi¶vi†KŠkj eY®v Ki|
- 2. eqtmw $\ddot{U}$ Kv‡j ^`wnK I gvbwmK  $^{-}$ \v^-'' wVK ivLvi Dcvq e'vL'v Ki |

# cÂg Aa"vq Rxe‡bi Rb" †Lj vaj v

gvbeRve‡bi GKwU ¯^vfweK I ¯^Ztù Z®wµqv n‡"0 †Lj vajj v| GKwU gvbewkï †Lj vajj vi gva"‡g ax‡i ax‡i eo n‡Z \_v‡K| †Lj vajj vi Rb" Kg¶g I mȳ ′ †`n LjeB cðqvRb| Avgv‡`i †`n wewfbæA½cðZ"‡½i mgš^‡q MwVZ| mwVK A½ mÂvj‡bi gva"‡g †`‡ni wewfbæA‡½i Kg¶gZv, kvi xwi K I gvbwmK mȳ ′Zv ew× cvq| †Lj vajj vi gva"‡gB G KvRwU Kiv m¤æ| ˆkk‡e †`‡ni A½cðZ"½ `ðZ †e‡o I‡V e‡j A‡bK mgq gvsm‡cwki m‡½ mæqj mgšq N‡U bv| GB mgšqnxbZv `i Kivi Rb" †Q‡j‡g‡q‡`i †Lj vajj v Kiv Acwi nvhq mȳ ′, mej , bx‡i w I Kgqg ki xi MVb A\_q my`i Rxe‡bi Rb" mevB‡K †Lj vajj v q m¤úq3 Kiv DwPZ|



dbej, wułKU, fwjej, Aïv\_‡jwU.

### G Aa vq tk‡l Avgiv-

- 1 | †`wk | we‡`wk †Ljvi cv\_fe" eYf9v Ki‡Z cvie
- 2 | dlJej, wu‡KU, KvewW, fwjej Ges A v\_tjwUt i wbqg\_tjv eY®v Ki‡Z cvie |
- $3\mid Pvi\,wU\,\dagger Lj\,v\;(dt Uej\,,\,w\mu \ddagger KU,\,KvewW,\,fwj\,ej)\;Ges\;A\ddot{\,}v\_\ddagger j\,wU\ddagger\cdot\;i\;wbqg\,\underline{\,}\sharp j\,v\;\dagger g \ddagger b\;Abykxj\,b\;Ki\,\ddagger Z\;cvi\,e\,|\,Lj\,v\;dt = 1$
- 4 | c#Z"K wk¶v\_PAMB Abhvqx Kgct¶ GKwU tLjvq eva"ZvgjK AskMbY Kti cvi`kPntq DVtZ cvie|

Rxeţbi Rb¨ †Lj vaj v

### cvV-1 † wk | we‡ wk †Ljv

evsjvt`tki AÂjwfwËtZ wewfbœtLjvajvi cÞjb itqtQ| Gme tLjvtK t`wk tLjv bvtg AwfwnZ Kiv hvq| thgb: `wwoqvevÜv, tMvjv\u00e4U, te\u00e5wQ, Wv1/2\u00fcyj, G°vt`v°v, nwWw1zBZïwv`| Gme AvÂwjK tLjvajvi evBti Abïvbï tLjvajv thgb: dbej, wutKU, nwK, fwjej, evt¯Uej, tUwbm, eïWwgvUb BZïwv` AvšR@ZKfvte AbyxôZ ntq\_vtK| Gme tLjvi DrcwË evsjvt`tk nqwb| ZvB G²tjvtK wet`wk tLjv etj|

KvewW : KvewW Gwkqv gnv‡ ‡ki Mið®gêjxq † kmg‡ni Rbwcår †Ljv| we‡kI K‡i cvK-fviZ Dcgnv‡ ‡k GwU GKwU cåPxb †Ljv| GB Dcgnv‡ ‡k AÂjwfwËK wewfbœbv‡g †LjwU AbywôZ n‡Zv| †h‡nZz AvÂwjK †Ljv ZvB wewae× wbqgKvb/p wQj bv| Miðg A‡j GB nv-Wy-Wy†LjvB wQj we‡bv ‡bi GKgvÎ Drm| evsjv‡ ‡ki HwZn evnx nv-Wy-Wy†Ljvi †cvkwwK bvg KvewW| evsjv‡ k I fvi‡Zi AKvš-cåPóvq 1985 mv‡j XvKvq AbywôZ mvd †Mg‡m KvewW †Ljv wbqwgZ B‡fvU wn‡m‡e Ašfj® nq| ZLb †\_‡K KvewW †Ljv AvšRmZK A½‡b cv iv‡L| 1990 mv‡j †eBwRs‡q AbywôZ Gwkqvb †Mg‡m KvewW †Ljv Ašfj® n‡j G †Ljv AvšRmZK gh®vq DbwZ nq|

KvewWV †Ljvi †KvU $^\circ$ : th mg $^-$  †Q‡j I †g‡q‡`i IRb 50 †KwR ev Zvi wb‡P Ges eqm Abpa $^\circ$ 16 eQi Zv‡`i Rb $^\circ$  KvewWV †Kv‡Ui cwigvc n‡jv $^\circ$ `N $^\circ$ 11 wgUvi, c $^\circ$ 7′ 8 wgUvi| wgWjvBb †\_‡K eKjvB‡bi ` $^\dagger$ 2 $_i$ 3 wgUvi| eKjvBb †\_‡K †evbvm jvB‡bi ` $^\dagger$ 2 $_i$ 1 wgUvi| †KvU †\_‡K wmwUs e‡Ki ` $^\dagger$ 2 $_i$ 2 wgUvi| wmwUs e‡Ki cwigvc n‡e 1 × 6 wgUvi|

KvewW †Kv‡U $^{\circ}$  c $^{\dagger}$ Z"KwU `wM 5 †m:wg: PI ov| †Ljvi w 'wZKvj 15 wg: + 5 wg: + 15 wg: = 35 wgwbU| `\Bar{B} A‡a $^{\circ}$  g‡a weiwZKvj 5 wgwbU| †Kv‡Ui `\Bar{B} cv‡ki 1 wgUvi j x \(^{\text{V}} RvqMv‡K j we e‡j|  $\div$  Mj "iyn‡j j we †Ljvi g‡a Aš $^{\circ}$  e‡j MY" nq| GK wbtk/‡m GKbwMv‡o KvewW KvewW ejv‡K `g (cant) e‡j| †iBWvi `jmn wec¶ †L‡j vqv‡oi hZRb‡K O‡q Avm‡e Zvi `j ZZ c‡q\U cv‡e| Zv‡K a‡i ivL‡j wec¶ `j 1 c‡q\U cv‡e| wbw`\Sigma\_{g} mg‡qi g‡a †h `j †ewk c‡q\U cv‡e †m `j Rqx n‡e|

KvR-1 : KvewW †Lj vi gvV AsKb K‡i †`LvI?

KvR-2: KvevWV †Ljvq †L‡jvqvoţ`i †Kv‡U© wov‡bvi †KŠkj cÖk® Ki|

### cW-2 fwjej:

fwjej tLjvi DrcwË nq AvtgwiKvq|
1895 mvtj DBwjqvg wR gMMo GB tLjvi
cPjb Ktib| cÖtg fwjej tLjvi bvg wQj
ÔwgbtUvtbUŐ Ges ZLb GB tLjv ntZv
ivevtii evWvi w tq| 1947 mvtj c witm
13 m m t k wbtq ÔwdfŐ ev AvšRMZK
fwjej tdWvtikb MwVZ nq| evsjvt tkl
tLjwU eûj cPwjZ| 1972 mvtj evsjvt k
fwjej tdWvtikb MwVZ nq|

#### mvavi Y wbqgvewj:

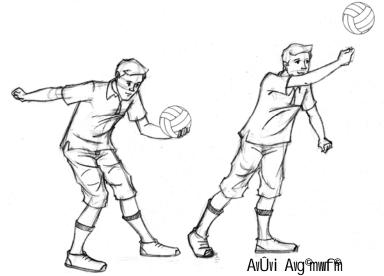
- 1. fwjej tLjvi tKvtUP ^`N©18 wgUvi I cÖ'9 wgUvi | tKvtUP mKj `vtMi Plov 5 tmwUwgUvi | tKvtUP `wU cvk.pi Lv I `wU côš‡i Lv \_vtK Ges côZ"KwU ti LvB tKvtUP Ašfp" |
- ga"ţi Lvi mgvšɨvj Kţi Dfq cvţk 3 wgUvi `ţi `yU ti Lv Uvbv nq | GUvţK AvµgY ti Lv eţj |
- 3. cůš‡iLvi †cQ‡b 9 wgUvi GjvKvUvB mwwf@ AÂj|
- 4. ga"ţi Lvi jvBb eivei cvk@ti Lvi 50 tm:wg: t\_tK 1 wgUvi `\ti `\pcvtk 2.55 wgUvi D"PZvq `\yU tMvjvKvi I gm\Y `\text{\$\mathbb{E}} i mvt\_ 1 wgUvi PI ov 9.50 wgUvi j \( \alpha'\cap \) Rvj Uvbvtbv nq \| c\yJ\text{\$\mathbb{E}} i t\text{\$\mathbb{T}}\text{\$\mathbb{E}} i \text{\$\mathbb{P}}\text{\$\mathbb{E}} v \text{\$\mathbb{E}} i t\text{\$\mathbb{T}}\text{\$\mathbb{E}} i \text{\$\mathbb{E}} v \
- 5. 12 Rb †L‡j vqvo wb‡q GKwU `j MwVZ n‡e| gv‡V 6 Rb †L‡j vqvo wb‡q †Lj‡Z n‡e| cŵZ †m‡U me®naK 6 Rb †L‡j vqvo e`j Kiv hv‡e|
- 6. †Ljv Avi‡¤¢ mgq mvg‡bi mwi‡Z 3 Rb I †cQ‡bi mwi‡Z 3 Rb †L‡jvqvo `wov‡e|
- 7. Um weRqx`j nq mwwfm Kite ev tKvU°cO>` Kite|
- 8. mwwffn AÂţj `wwoţq ej‡K k‡b" Zţj AvNvZ Kţi mwwffn Ki‡Z nq| ejUv‡K AvNvZ Kivi ciB mvffn †Kv‡U°c¢ek Ki‡Z cviţe|
- 9. wiwmwfs`j hLbB GKwU mwwfm jvf Kiţe, ZLb H`ţji mKj †Lţjvqvo Nwoi KwUvi g‡Zv Nţi GKevi Zvţ`i Ae¯'vb cwieZ10 Kiţe| GUvţK ţivţUkb c×wZ eţj|

- 10. fwjej cŵZ‡hwMZvq 5wU tm‡Ui g‡a" th`j 3wU tm‡U Rqjvf Ki‡e tm`jB weRqx n‡e|
- 11. †Ljv PjvKvjxb ej‡K wec‡¶i †Kv‡U°cvVv‡bvi Rb¨ GK`j me®aK wZbevi ejwU‡Z ¯úk°ev AvNvZ Ki‡Z cvi‡e| Zţe e‡Ki mgq hw` †Kv‡bv ¯úk°nq, †mUv‡K GB wZbev‡ii ga¨ MYbv Kiv nţe bv|
- 12. GKRb †Lţj vqvo cici `Bevi eţj ¯úk©Ki‡Z cviţe bv|
- 13. kixtii †h‡Kvtbv Ask w`tq etj AvNvZ Ki‡Z cviţe|
- 14. mwr¶mi ej hw`tbU ~úk~K‡i wec¶ †Kv‡U~hvq Zvn‡j mwVK e‡j aiv nq|
- 15. wec¶`‡ji†Kv‡U°ej \_vKvKvjxb†b‡Ui Dci w`‡q†mBej‡K AvNvZ Kiv hv‡e bv|
- 16. †cQtbi mwii †Ltjyqvoiv KLbB AvµgY KitZ Gtm Rvtji Dctii jvBtbi D"PZvq ejtK †diZ cvVvtZ cvite bv I e\infty KitZ cvite bv|
- 17. th`j fj Kite tm`j mwrfm nvivte Ges Aci c¶ mwrfm I GKwU ctqvU jvf Kite|
- 18. th `j AvtM Kgct¶ 2 ctqt>Ui e"eavtb 25 ctq>U AR® Kite, tm `j tmU weRqx nte| hw` Dfq `tji ctq>U 24-24 nq Zvntj Gt¶tî wWDm nte Ges 2 ctqt>Ui e"eavb bv nlqv ch®-tLjv PjtZ \_vKte| Gfvte c@g t\_tK PZ\_@tmU ch®-Pjte| cÂg tmtU th `j AvtM 2 ctqt>Ui e"eavtb 15 ctq>U AR® Kite, tm `j weRqx nte| Avi hw` Dfq `tji ctq>U 14-14 nq, Zvntj 2 ctqt>Ui e"eavb bv nlqv ch®-tLjv PjtZ \_vKte|

#### Kjv‡KŠkj:

mwfm- mvavi YZ mwfm `Bfvte Kiv hvq Ñ

- 1. Kuṭai wbṭP nvZ Gṭb mwrf® Kiv (AvĒvi Avg®mwrf®)|
- K. GK cv mvgtb I GK cv tcQtb ti‡L Wvb nvUz mvgvb" tf‡0 tcQtbi cvtq t`tni IRb ti‡L `wovtZ nte|
- L. ew nv‡Zi Zvj‡Z ej wb‡q Wvb
  nvZ‡K †mvRv †i‡L †cQ‡bi w`‡K
  wb‡q †h‡Z n‡e|
- M. ew nv‡Zi ej‡K lc‡i k‡b¨ Z‡j w`‡q Wvb nv‡Zi Zvjy wKsev nv‡Zi DcwifvM w`‡q e‡j AvNvZ Ki‡Z n‡e|
- N. etj AvNvZ Kivi ci dtjv j Kivi Rb A\_F mvgtb StK covi Kvity kixtii I Rb mvgtbi cvtq wbtq thtZ nte



 $kvi wi K wk \P v I ^{-1} V^{-1}$ 

2. Kuţai Icţi ej Zţj mwfM Kiv (†Uwbm mwfM):

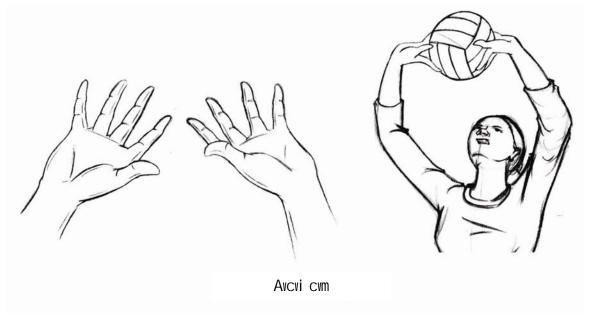
K. mwwfm AÂţj cv`ţUv‡K AvovAwo Kţi `ß cvţqi Dci kixţii mgvb IRb ti‡L `wov‡Z nţe|



- L. Wwb nwwZ †L‡jvqv‡oi Rb¨ew nv‡Zi Zvj¢Z ej †i‡L cÖq 1 wgUvi DPP‡Z ejUv‡K Q¢o w`‡Z n‡e|
- M. ejUv wb‡Pi w`‡K bvgvi mgq Wvb nv‡Zi Zvjyw`‡q ejUv‡K m‡Rv‡i AvNvZ Ki‡Z n‡e|
- 3. cvm (Pass) Kiv- mvaviYZ `yfv‡e cvm Kiv hvqÑ
- 'nvZ gv\_vi | Ci wb‡q cvm Kiv
   (Upper hand pass) :

K. ej wU‡K me mgq Av½ţji c<u>Ü</u>g MwU I †kI c¤ţši gvSLv‡bi Ask w`‡q ~uk®Ki‡Z nţe|

L. nv‡Zi Kbß `ţUv Kwa eivei ivL‡Z nţe, hv‡Z wVK Kcvţj i mvgţb t\_‡K †Lj v hvq | M. nwUz`ţUv †f‡O `ycvţqi Dci mgvb fi ti‡L mvgţbi w`‡K mvgyb¨ SţK `wov‡Z nţe |



N. etji wVK tcQtb I wbtPi w`tK AvNvZ Kti mvgtb Ictii w`tK tVtj w`tZ nte Ges nwUztmvRv Kti `wovtZ nte|

- 2. KbB Kutai wbtP Gtb cvm Kiv (Under arm pass):
- K. eţov Av½j evt` Ab¨ Av½j ¸tj v w`tq `nvtZi Av½j ¸tj vtK Rwotq ati Zvi Dci eţov Av½j `ţUvtK cvkvcwk ivLtZ nte|
- L. KbB`ţUvtK Ggbfvte ivLtZ nte, hvtZ KbB t\_tK Kwâ ch®-nvtZi AskUv cvkvcwk \_vtK |
- M. `B nuUz†ftO †Kvgi wbPzKti etji wbtP kixitK wbtq thtZ nte|
- N. KbB Gi wKQUv mvqtb †\_tK Kwâ chS-Ask w`tq ej tK I cti DVvtZ nte Ges kixi †mvRv KitZ nte|

KvR-1 : AvÊvi Avg@mwwf@n cÖk@ Kţi †`LvI |
KvR-2 : †Uwbm mwwf@mi †KŠkj ¸ţj v e vL v Ki |

### $cvV-3:A\ddot{v}_{j}wU$

tLj vaj vi †¶‡Î †`Šo, Suc I wb‡¶c‡K GK K\_vq Aïv\_ţj wJ. ev U³vK GÊ wdì ej v nq| 400 I 800 wgUvi †`Šo : mvavi YZ 400 I 800 wgUvi †`Šo‡K ga¨g `‡‡Zji †`Šo eţj | G †`Štoi Rb¨ cðqvRb nq 200 wgUvi A\_ev 400 wgUvi Aïv\_ţj wJK U³vK | U³v‡K tj‡bi msLïv AvUwJ, Zţe ¯<tj Kgc‡¶ QqwU tj b \_v‡K | me@v‡gi tj b‡K 1 b¤^i tj b wn‡m‡e e¨envi Kiv nq| †`Štoi mgq kix‡ii evg cvk‡K gv‡Vi wfZţii w`‡K ti‡L †`Šov‡Z nq | GB †`Šţo ÷ ïwWw®e¨envi Ki‡Z nq| †`Šţoi `‡‡Zį mgZv Avbvi Rb¨ th c×wZ e¨eüZ nq Zv‡K ÷ ïwWw®eţj | g‡b ivL‡Z nţe, ga¨g `‡‡Zįi †`Šţo kix‡ii m¤ú¥®kw³ GKmv‡\_e¨q Ki‡Z nq bv| †`Šov‡bvi kw³‡K tMvUv `‡‡Zį fwM Kţi wb‡Z nq| A‡afk ev wZb fv‡Mi GKfwM `‡‡Zį me kw³ tkI Kţi w`ţj Avi tkI cðţš—hvI qv hv‡e bv| m¤ú¥® ‡‡Zį kw³ eÈb ¶gZv LyeB ¸iyZ祶 thgb 400 wgUvi †`Šţo cð\_g 200 wgUvi Ges wðZxq 200 wgUvi †`Šov‡bvi Rb¨ tbqv mgţqi e¨eavb 2 †\_‡K 5 †m‡KţÊi tewk nI qv DwPZ bq| †0vU `‡‡Zįi †`Šţo Avi‡¤đ Kvq`vq 400 wgUvi I 800 wgUvi †`Šţo Avi¤¢Kivi ci Avi¤¢ mgţqi MwZţeM mţe®P MwZţeţMi †Pţq mvgvb¨ Kg nţe| tkI P° i †`Šov‡bvi mgq 2 †\_‡K 3 wgUvţii tewk e¨eavb ivLţe bv| ga¨g `‡Zįi †`Šţo cvtqi K`g †0vU †`Šţoi †Pţq eo nţe|

100 × 4 wgUvi witj †`Šo : GB witj ev hy³t`Što cůZ"K `tj PviRb ivbvi \_v‡K| cůZ"K‡K 100 wgUvi Kti †`Što m¤úY© iZ $_i$ AwZ $\mu$ g Ki‡Z nq| G †`Štoi Avi¤¢†KŠkj w $_i$ ců $_i$ Ui Aby $_i$ e| Z‡e AwZwi $_i$ 3 †KŠkj n‡"0  $_i$ 

K. †`Štoi mgq e "vUb ev KwW e j Kivi Rb" nvZUv mvgtbi w tK ewotq w tZ nte

L. hv‡K e~vUb †` ‡e Zvi eţov Av½ţj i Øviv ^Zwi ÔnfÕ ~v‡b KwWwU †c&ţQ w` ‡Z n‡e|

M. e'vUb nvtZ -úk Kivi mvt\_ mvt\_ ati tdj tZ nte Ges eu nvtZ ubtq thtZ nte |

N. e vUb † qv-tbqvi mgq Dftqi † štoi MwZ mgvb \_vKte|

### $cVV-4: xV^G vd$

cÖʻwZ- Iqvg®Avc ev kixi Mig I we‡kI wKQzeïvqv‡gi gvaï‡g Aïv\_‡jU kvixwiK I gvbwmKfv‡e cÖʻyz tb‡e|

#### wbqgvewj:

- K. jvd † evi RvqMv t\_tK 16-20 avc † Što Gtm mymeavgtZv evg ev Wvb cvtqi Dci fi Kti tUK Ad tevtWP Dci t\_tK jvd w tZ nte
- L. tUK Ad tev‡WP ^ N© 1.21-1.22 wgUvi, cÖ' 20 tm:wg: ( 2 wgwj wgUvi Kg‡ewk n‡Z cv‡i) D"PZv 10 tm:wg: | is mv`v|
- M. Gʻvtc $^{\circ}$ P ivtbi  $^{\circ}$ ZMwZ tewk  $^{\circ}$   $^{\dagger}$ Z $_{i}$  AwZ $_{\mu}$ g Ki $^{\dagger}$ Z mvnvh $^{\circ}$  K $^{\dagger}$ i |
- N. Dfq cvtqi Ici GKB mvt\_ AeZiY Kiv|
- 0. gwlU‡Z A\_P Rwzús wc‡U AeZiY Kivi mgq nwUzÔ`Õ Gi g‡Zv fwR K‡i \_vKţe hv‡Z \_yZwb nwU‡Z bv jv‡M| gv\_v mvg‡b SwKv‡bv \_vKţe|
- P. Rwmaus wcu- ^`Notuk Ad tewnotuk j`wnês Gwiqvi tkl cos-chos-10 wguvi | tuk Ad tewnotuk j`wnês Gwiqvi Avimachos-1-3 wguvi | co' 2.75-3.00 wguvi Ges Mfxi Zv 30 thwo uwguvi |

 $Kjv\sharp K\mathring{S}kj: `vN^G]v\sharp dig\sharp a``mvaviYfv\sharp e PvivU Ask i\sharp q\sharp Q| c \underline{\mathring{O}}g \dagger UK Ad \dagger bevi Rb`` \dagger \grave{S}o, w\~OZxq \dagger UK Ad, ZZxq k\sharp b`` Ae^'vb Ges \dagger k\sharp I Rwwaús wc\sharp U AeZiY| \dagger \grave{S}to Avmv (A``v\sharp c \mathring{OP} ivb)- \dagger UK Ad \dagger b I qvi Rb`` \dagger \grave{S}o I wbf f^P c` \sharp \P \sharp c i jv\sharp di KZKvh fZv we\sharp k I fv\sharp e wbf f^P K\sharp i | mva``g\sharp Zv AwZ `fZZvi mv\sharp_ \dagger `\mathring{S}to \dagger UK Ad tev\sharp WP Kv\sharp Q Avm\sharp Z n\sharp e | Av\sharp M \dagger_\sharp K wb\sharp Ri c` \sharp \P c wVK K\sharp i wb\sharp Z n\sharp e |$ 

gwU †\_‡K I c‡i DVv (†UK Ad)- gwU †\_‡K I c‡i I Vvi Rb¨ †UK Ad †ewW\R cv\pai cvZvi mvnv\pai (†h cv w` †q gwU Qvov n†e) m\pai Rv\pai av°v w` †q Dc\pai DV\pai Z n\pai | av°v †` qvi mgq n\pu\bar mv\U mvgvb¨ fv\Ov \_vK\pai | Zvici cv m\pai\pai\pai\pai mvRv K\pai wb\pai Z n\pai Ges GKB mv\pai \_ weci \pai Z n\pai\bar t\pai \text{\$\text{o}\$} \text{\$\text{w}\$} \text{\$\text{\$\text{t}\$}\$} \text{\$\text{o}\$} \text{\$\text{\$\text{o}\$}\$} \text{\$\text{\$\text{o}\$}\$} \text{\$\text{\$\text{o}\$}\$} \text{\$\text{\$\text{o}\$}\$} \text{\$\text{\$\text{o}\$}\$} \text{\$\text{\$\text{o}\$}\$} \text{\$\text{\$\text{\$\text{o}\$}\$} \text{\$\text{\$\text{o}\$}\$} \text{\$\text{\$\text{\$\text{o}\$}\$} \text{\$\text{\$\text{o}\$}\$} \text{\$\text{\$\text{o}\$}\$} \text{\$\text{\$\text{o}\$}\$} \text{\$\text{\$\text{o}\$}\$} \text{\$\text{o}\$} \text{

k‡b" Ae⁻'vb (dvBU)- †`n Dc‡i IVvevi Rb" nwUzUvK Kiv (Ô`Õ Gi g‡Zv), SwKwb w`‡q Lye †Rv‡i cv †Qvov (wnPwKK), †Kvgi `wj‡q I nvZ†Rv‡i mvg‡b `wj‡q Rww≃ús wc‡U AeZiY Ki‡Z n‡e|

AeZiY (j "wês) - cv Rw¤ús wctU covqvî kixi mvqtb SuKwb w`tq Mwotq mvqtb Ptj AvmtZ nte

tMvjK wb‡¶c: tMvjK wb‡¶c‡K Bs‡iwR‡Z kUcŊ e‡j | cŴPxbKv‡j cv\_i wb‡¶‡ci cÞjb wQj | cieZÆKv‡j GUv tjŠn‡MvjK wb‡¶‡c cwiYZ n‡q‡Q|

#### wbqgvewj:

- K. tMvj‡Ki IRb cyj‡li Rb 7.26 tKwR Ges gwnjv‡`i Rb 4 tKwR | e wm h\_vμ‡g 11-13 tmwUwgUvi I 9.5-11 tmwUwgUvi |
- L. tMvjK wb‡¶‡ci e‡Ëi e"vm 2.135 wgUvi| e‡Ëi gvS eivei ewa2 `vM 75 tmuvUvgUvi|
- M. kUcţUi j wÊs A v 1/2 j 34.92 w w 0

- N. e‡Ëi wfZi †\_‡K 34.92° †mKU‡ii g‡a wb‡¶c K‡i †Mvj KwU †dj‡Z n‡e|
- 0. c#Z"‡K wZbwU Kţi wbţ¶ţci mţhvM cvţe|

wbţ¶ţci †KŠkj : †kLvi myeavi Rb¨ †KŠkj ¸ţjv wbţP avivewnKfvţe eY®v Kiv nţjv :

- 1 | tWy K aiv :
  - (K) tMvjK nv‡Zi Zvjyw`ţq bv aţi Av½ţji tMvovmn m¤ú¥¶`ţq ai‡Z nţe|
  - (L) eţov I Kţo Av½j w`ţq eţji`ß cvk aţi ivL‡Z nţe, hv‡Z Mwoţq bv cţo|
- 2 | tMvj K Kutai Dci ivLv:
  - (K) thij KuU Mjv I Kutai ugjb-'tj LutRi gta tVtj ivLtZ nte, hvtZ thijtKi fvi ivLv hvq|
  - (L) Wwb nvtZi KbB Wwb cvtk LwwbKUv DPtZ ivLtZ nte|
- 3 | cÖiw¤Ƙ Ae⁻′vb:
  - (K) thuitK thuiK Opte Zvi wecixZ witK gyL Kti iwovtZ ntel
  - (L) Wvb cv mvgtb ev evg cvtqi cvZvtK wcQtb wbtq Wvb cvtqi tMvovwji KvtQ ivLtZ nte|
- 4|  $^{\text{-}}\text{'vb cwi}\,e\text{Z}9$ :
  - (K) †Kvgi †\_‡K Dc‡ii kixiUv‡K mvg‡bi w`‡K SøjKţq `§Z evg cv-†K wcQ‡b Dc‡ii w`‡K `vjj‡q wb‡q †h‡Z n‡e|
  - (L) Wwb cvtqi tMvowj w`tq mt½ mt½ av°v w`tq m¤úY®kixiUv wcQtbi w`tK tVtj wbtZ nte|
  - (M) GB Ae 'vq j vdv‡bv DwPZ bq
- 5| wbt¶tci Ae 'vb:
  - (K) evg cvtqi nuUzbv tft0 tmvRv Kti \_vtgi (LuUi) gtZv ivLtZ nte|
  - (L) Wwb cvtqi nwUztft0 tKvgi t\_tK Dctii kixiUvtK wcQtbi w`tK Nwitq w`tZ nte|
  - (M) `wó wcQtbi w`tK ivLte|
- 6 | tMvj K‡K tV‡j t`lqvi f½x:
  - (K) †Mvj K k‡b" †Vtj †` I qvi mgq Wvb nvtZi KbB KLtbv wbtPi w`tK bvgvte bv|
  - (L) thuj KuU Av½y w`tq evBtii w`tK cëj kw³tZ tVtj w`tZ nte|
- 7 | MwZ‡eM wbqš½ :
  - (K) tMvjK wbt¶tci ci mvgtbi w`tK StK hvlqv kixtii MwZtK wbqšy Kivi Rb" wcQtbi Wvb cvtK mvgtb wbtq nuUztft0 t`nUvtK GKUzbwqtq fvimvq" i¶v KitZ nte|

KvR-1: †MvjK aivi †KŠkj cÖk® Ki∣

 $KvR-2: tMvjK tQvovi tKŠkj_tjve^vL^vKi$ 

 $kvi wi K wk \P v I ^- v^-$  45

### cW-5 D"P jvd

D"P j vd‡K Bs‡i wR‡Z nvBRv $\approx$ ú e‡j | D"P j vd †`qvi j  $\approx$ wÊs Gwi qvi  $^{\sim}$ N $^{\circ}$ 5 wgUvi , cÖ' 3 wgUvi Ges D"PZv 60 †mw>UwgUvi |  $\mu$ mev‡i i  $^{\sim}$ N $^{\circ}$ 4 wgUvi , I Rb 2 †KwR Ges e $\approx$ vm 29-31 wgwj wgUvi | wewfb $\alpha$ c×wZ‡Z D"P j vd †`qv hvq | ‡hgb :

K. wmRvi KvU, L. tewj tivj, M. dm‡ewi d€

#### K. wmRvi KvU:

- 1. †`Što Avmv (A¨v‡c $\mathring{\theta}$ P ivb)  $30^{0}$ Ñ45 $^{0}$  wWwM $\mathring{\theta}$ †KvY K‡i ev‡ii w`‡K †`Što Avm‡e| 8 ev 9wU eo eo c`‡¶c †b‡e| †k‡Ii 2 ev 3wU c`‡¶c `Z n‡e|
- 2. gwW tQto DVv- (tUK Ad) th cvtq fi Kti Dcti DVte A\_F tUK Ad dW µmevi t\_tK GK dW `#i ivLte| wecixZ cv mtRvti Dcti wKK Kite|
- 3. µmevi AwZµg Kiv-(µmevi wKqvtiÝ)-wKK Kiv cv nwUz†f‡0 µmevţii Dci Avbvi mvţ\_ mvţ\_ †UK Ad dUI GKBfvţe Avb‡Z nţe| µmevţii wVK Dcţi kixi‡K emvi g‡Zv fw½ţZ ivL‡Z nţe|
- 4. gwNJtZ bvgv (j wEs)-`B cvtqB AeZiY Kite| Zte tUK Ad tbqv cvtqi wecixZ cv AvtM R waús wcU uksKite|

#### L. tewj tivj :

- 1. †`Što Avmv (A"v‡cÕP ivb)- 45° †KvY Kţi µmevţii w`‡K †`Što Avmţe| †`Što Avmvi Rb" 7 ev 8wU eo eo c`ţ¶c wbţe| †kţli wZbwU c`ţ¶c `Z nţe|
- 2. gwW tQto DVv (tUK Ad)-th cvtq fi Kti Dcti DVte A\_F tUK Ad dt/ µmevi t\_tK GK dt/ `i tdjtZ nte| Ab" cv mtRvti Dcti wKK Kite|
- 3. μmevi ΑνίΖμα Κίν (μmevi νίΚαντί Ý)-†Kvgi μmevtii Dcti DVtj kixi †NvivtZ nte| †Nvivevi mgq tcU μmevtii Leβ ΚνtQ \_vKte| G mgq kixi Dcp Ae-'vq μmevtii mgvšivtj \_vKte|
- 4. gwU‡Z bvgv (j¨wlÊs)- th cvtq tUK Ad tbte, Zvi wecixZ cv Ges `ß nvtZi Dci fi Kti AeZiY Kite|

#### M. dm‡ewi d€:

1968 mvtj tgw tKv Awjw¤útK AvtgwiKvi wWK dmtewi GK bZb c×wZtZ DPzjvd w`tq tmvbvi tgtWj cvb Ges ZLb t\_tKB Zvi bvg Abynvti dmtewi d‡ci cPjb | GB c×wZi wetkIZintjv, th cv µmevi t\_tK `‡i \_vtK, tm cv w`tq gwU tQto Dcti IVv nq Ges µmevtii Dci t`nUv µmevtii mgvšivj \_vtK I wcVUv µmevtii KvQvKwQ \_vtK | GB c×wZi me t\_tK myeav ntjv th kixtii fitK>`a Rwg t\_tK Lye Aí ZtjB µmevitK Abvqvtm wWw½tq hvIqv hvq | thtnZvwctVi Dci fi Kti bvgtZ nq, tmRb¨ wbtRi wbivcËvi K\_v mevi AvtM wPšrKitZ nte | ZvB tdvtgi g¨vU Qvov KLbB GB jvd Abkxjb Kiv DwPZ bq |

1. †`Šţo Avmv (A¨vţcἄP ivb)- μmevţii mvţ\_ 90° †KvY Kţi `wwoţq †`Šo Avi¤¢Kţi Aa@ËvKvţi Nţi μmevţii KvţQ AvmţZ nq| †kţli `yd c`ţ¶ţc †`ţni fiţK›`ţK GKUzbwgţq wbţZ nq|

2. gwlU tQto DVv (tUK Ad) - ga" kixiUvtK LwwbKUv wcQb w`tK SynKtq w`tq th cv w`tq gwlU Qvov nte, tm cv-UvtK t`tni fitKt>`i mvgtb ivLtZ nte| hLbB fitK>`NU tUK Ad tblqv cvtqi Dci Avmte, ZLbB tmB cv-UvtK nwUz mwÜtZ tftO wbtq `jZ I tRvtii mvt\_ Dctii w`tK DVvtZ nte| GKB mvt\_ Aci cvUvtK `ynjtq Dcti Wvb Kutai jvBtb wbtq thtZ nte, Zvi dtj wcVUv µmevtii w`tK Ptj Avmte|

- 3. μmevi AwZμg Kiv (μmevi wKqvtiÝ)- thB gvl t`n gwU tQto Dcti DVte, mvt\_ mvt\_ nvZ `ţUv cvtki w`tK t`tni mgvšivtj Gtb gv\_v, ga¨ kixi I tKvgtii wbgwsktK μmevtii Dci w`tq AwZμg KivtZ nte|
- 4. gwU‡Z bvgv (j "wlĒs) nvZ I cv `ţUvţK Dcţi Zţj w`ţq wcţVi mvnvţh" g "vţUi Dci Mwoţq thţZ nţe |



dm‡ewi d€

KvR-1: dm‡ewi d€ †KŠkj wUi wewfbœavc eY®v Ki‡eb I cÖ k® K‡i †`Lv‡Z ej‡eb|

### cw-6 dbej

dlej tljv cw\_exi Rbwcå tljv¸tjvi Ab¨Zg| me t`tk GKB wbqtg tljvi Rb¨ 1904 mvtj AvšRmZK dlej ms¯′v ÔtdWvtikb B>Uvib¨vkbvj wW dlej Gtmwmtqkb ev wddvÕ MwVZ nq| 1930 mvj t\_tK wek,Kvc dlej AbymôZ ntq AvmtQ| cåZ Pvi eQi ci ci wek,Kvc dlej cåZthwMZv AbymôZ nq| 1908 mvtj jÊb Awjw¤útK cåg dlej tljv Ašf® nq| 1972 mvtj evsjvt`k dlej tdWvtikb (evdtd) MwVZ nq| GwU evsjvt`tki dlej wbqšyKvix mte®P ms¯′v| dlej evsjvt`tk LyeB Rbwcå GKwU tljv| GB tljvi gva¨tg mnthwMZvi gtbvfve, AvZwek,m, w¶cæv, tbZZi Ges wbqgbwzi cåZ k²vkxj nlqv cåfwZ mr¸tYi weKvk NtU|

#### AvBbKvbtb:

1. †Ljvi gwV : AvšR®ZK dbej †Ljvi gvV `ß ai‡bi cwigv‡c nq| GKwU n‡"Q ^`N© 100 wgUvi (110 MR) I cÖ' 64 wgUvi (70 MR)| Ab"wU ^`N© 110 wgUvi (120 MR) I cÖ' 75 wgUvi (80 MR)| †Mvj‡cv÷ D"PZvq 2.44 wgUvi (8 db) Ges GK †cv÷ †\_‡K Ab" †cv‡÷i `iZi 7.32 wgUvi (24 db)| Dfq †Mvj‡cv÷ †\_‡K cv‡k 6 MR Ges gv‡Vi w`‡K 6 MR `iZi wb‡q †h AvqZ‡¶Î ^Zwi nq, Zv‡K †Mvj Gwiqv e‡j | Dfq †Mvj‡cv÷ †\_‡K cv‡k 18 MR I gv‡Vi w`‡K 18 MR `iZi wb‡q †h AvqZ‡¶Î ^Zwi nq, Zv‡K

tcbwë Gwiqv etj | `B tcvt÷ i wVK gvSLvb t\_tK gvtVi wfZti 12 MR mvgtb GKwU tcbwë ¯úU \_vtK | cůZ ¨K tcbwë gvK\$K tKɔ`ª Kti 9.15 wgUvi (10 MR) e ¨vmva®nbtq tcbwë Gwiqvi evBti GKwU eËPvc AwKtZ nte | GtK tcbwë AvK®etj | gvtVi cůZ Kbåti GKwU Kti d¨wMtcv÷ ¯′vcb KitZ nte | d¨vMtcvt÷ i D″PZv Kgct¶ 5 dtJ ntZ nte Ges Gi AMÅT †PvLv nte bv | cůZ Kbåt d¨vMtcv÷ tK tKɔ`ª Kti 1 MR e ¨vmva®nbtq gvtVi gta ¨ GKwU eËvsk AwKtZ nte | Dfq tMvjtcv÷ µmevtii PI ov 12 tm:wg: (5 BwÂ) Gi tewk nte bv | tMvjtcv÷ Ges µmevtii is Aek¨B mv`v nte | gvtVi mKj `vtMi PI ov 12 tm:wg: (5 BwÂ) Gi tewk nte bv |

- 2. ej : eṭji cwiwa 70 tmwUwgUvṭii (28 BwĀ) tewk Ges 68 tmwUwgUvṭii (27 BwĀ) Kg nṭe bv| eṭji IRb 410-450 Mẅg (14-16) AvDÝ nṭq \_vṭK|
- 3. tLtjvqvo msL"v: tLjv `ß `tji gta" AbyoôZ nq| tLjvq cÔZ `tj 11 Rtbi tewk tLtjvqvo \_vKte bv| 11 Rtbi gta" GKRb tMvji¶K \_vKte| hw` tKvtbv `tj 7 Rtbi Kg tLtjvqvo \_vtK Zte tLjv Avi¤¢ Kiv hvte bv|
- 4. †L‡jvqv‡oi mvR-miÄvg : AvšR®ZKfv‡e Rwm© nvd c¨vbU, †gvRv, wmbMWV©I RyZv (dţUIqvi) Qvov †Ljv hvq bv| Z‡e AvÂwjKfv‡e ¯<j ch@q Gme QvovI †Ljv nq|
- 5. †idwi : †Ljv cwi Pvj bvi Rb GKRb †idwi \_vK‡eb|
- 6. mnKvix tidwi : tLjvq `Rb mnKvix tidwi wbhy³ nteb| Zviv AvBb Abhvqx tidwitK tLjv cwiPvjbvq mvnvh¨ Kiteb| GQvov gvtVi evBti GKRb PZ<u>r</u>ªidwi \_vtKb|
- 7. †Ljvi w''wZKvj : AvšR@ZKfvte `ß Ata©45 wgwbU Kti †gvU 90 wgwbU †Ljv ntq \_vtK| `ß Ata® gvtS weiwZ †Kvtbv Ae''vtZB 15 wgwbtUi AwaK nte bv| Zte AvÂwjKfvte G †Ljvi mgq Kwgtq †Ljvtbv hvq|
- 8. †Ljv Avi¤¢: †Ljvi ïi‡Z U‡m Rqx `j‡K Aek"B gv‡Vi †h‡Kv‡bv mvBW †e‡Q wb‡Z n‡e| U‡m ciwwRZ `j †idwwii ms‡K‡Zi mv‡\_ mv‡\_ ÔwKK AdÕ-Gi gva"‡g †Ljv ïiyKi‡e| GB wKK Ad †Ljvi ïi‡Z, †Mvj nevi ci Ges nvd UvB‡gi ci n‡q \_v‡K| wKK Ad †\_‡K mivmwi †Mvj nq|
- 9. ej †Ljvi g‡a¨ I evB‡i : ej hw` Mwo‡q ev k‡b¨ m¤úY®†MvjjvBb ev UvP jvBb AwZµg K‡i, Z‡e †mB ej‡K †Ljvi evB‡i aiv nq| †idwi KZ¶ †Ljv eÜ n‡j ej †Ljvi evB‡i MY¨ nq|
- 10. tMvj nlqv: tMvj ZLbB nq, hLb eţji m¤úY®Ask `β tcvţ÷i wfZi w`ţq l μmevţii wbP w`ţq Mwoţq ev k‡b" tMvjjvBb AwZμg Kţi|
- 11. Ad mvBW : GKRb †L‡j vqvo ZLbB Ad mvBW nq, hLb †Mvj wKcvi Qvov ej I wec‡¶i AšZc‡¶ GKRb †L‡j vqvo Zvi mvg‡b bv \_v‡K|
- 12. dvDj I Am`vPiY: Aciva I Am`vPi‡Yi Rb¨`ß ai‡bi wd« wKK †`qv nq| h\_v- WwB‡i± I BbWwB‡i± | wbgwgiwLZ 10wU Aciv‡ai Rb¨ WwB‡i± wd«wKK †`qv nq -
- 1. wec¶ tLtjvqvotK jw\_ gviv ev jw\_ gvivi tPóv Kiv|
- 2. wec¶ †L‡j vqvo‡K j "vs gvi v ev j "vs gvi vi †Póv Ki v|
- 3. wec¶ tLtjvqvtoi Dci jwdtq cov

- 4. wec¶ †L‡j vqvo‡K AvµgY ev PvR®Kiv|
- 5. wec¶ †L‡j vqvo‡K AvNvZ Ki v ev AvNvZ Ki vi †Póv Ki v|
- 6. wec¶ †L‡j vqvo‡K av°v †`qv|
- 7. wec¶ †L‡jvqvo‡K U"vKj Kiv|
- 8. wec¶ †L‡j vqvo‡K AvUKv‡bv ev a‡i ivLv|
- 9.  $wec_{tilde{ti$
- 10. B"OvKZfvţe nvZ w`ţq ej aiv (^xq tcbwë Gwiqvq tMvji¶ţKi Rb GB wbqg c@hvR bq)|

### wbgnejwLZ Kvi‡Y BbWvB‡i± wd«wKK†`qv nq -

- 1. tMvji¶K Zvi nv‡Z ej wbqš‡Yi ci tLjvi gv‡V cvVv‡bvi c‡e®hw` 6 tm‡K‡Êi tewk mgq ej a‡i iv‡L|
- 2. tMvji¶K GKevi ej tQto t`qvi ci Ab" tKvtbv tLtjvqvtoi UvP Kivi c‡eB hw` cþivq ejwU ati|
- 3. ^/xq `tji †Kvtbv †Ltjyqvtoi B"QvKZ wKK Kiv ej hw` †Mvji¶K nvZ w`tq UvP Kti ev ati|
- 4. wbR `tji †Kvtbv †Ltjvqvo KZK †\_0-Bb Kivej hw` †Mvji¶K nvZ w`tq UvP Kti ev ati|
- 5. wec34bKfvte tLjv
- 6. ej bv tLtj wec¶ tLtjvqvtoi m¤\$LMwZtZ evav t`qv|
- 7. tMvji¶K ej Q‡o t`qvi mgq Zv‡K evav t`qv|
- 13. wd«wKK: wd«wKK`ß ckvi| K) WvBţi± wd«wKK, L) BbWvBţi± wd«wKK| WvBţi± wd«wKK †\_‡K mivmwi tMvj nq| BbWvBţi± wd«wKK †\_‡K mivmwi tMvj nq bv|
- 14. †cbwë wKK: WvBţi± wd«wKţKi `kwU Acivţai †hţKvţbv GKwU †cbwë Gwiqvi gţa" wWţdÊvi KZß NUţj wec¶ `j †cbwë wKK cvq| †cbwë wKK gvivi mgq ïay†MvjwKcvi I wKKvi Qvov †KD †cbwë Gwiqvi gţa" \_vKţZ cvţi bv|
- 15. †\_0-Bb : ej cvk la Lv AwZμg Ki‡j †\_0-Bb Gi gva tg †Ljv i jyKi‡Z nq| †\_0-Bb Kivi mgq ej \β nv‡Z mgvb fi w tq gv\_vi tcQb w K †\_‡K Ges gv\_vi Dci w tq \β cv gv‡Vi evB‡i ev \v‡Mi Dci †i‡L ej gv‡Vi g‡a wb‡¶c Ki‡Z nq| †\_0-Bb †\_‡K mivmwi †Mvj nq bv|
- 16. tMvj wKK: wec‡¶i tOwqv tj‡M hw` ej tMvjjvBb AwZµg K‡i, Z‡e tMvj wKK nq| tMvj wKK tMvj Gwiqvi ga" t\_‡K Ki‡Z nq| tMvj wKK t\_‡K mivmwi tMvj nq| Z‡e tMvjwKK tcbwwë Gwiqvi evB‡i bv tM‡j ej tLjvi g‡a" MY" nq bv|
- 17. KbP wKK: wWtdÊvit`i tOwqv tjtM hw` ej tMvjjvBb AwZµg Kti, Zte wec¶`j GKwU KbP wKK cvq| tMvj tcvt÷i th cvk w`tq ej tMvjjvBb AwZµg Kti tmB cvtki tKvbv t\_tK KbP wKK gvitZ nq|

KvR-1: dbej †Ljvi gvV AsKb K‡i gvc D‡j LKi |

KvR-2: †cbwe wK‡Ki †KŠkj ¸‡jv e vL v K‡i †`Lv‡Z ej‡eb|

#### cW-7:

#### 1. wKwKs:

K. tjv nvW@nKK ev tRvivtjv wKK - tRvti wbPzw`tq tKvtbv ej Aí `itZitmvRvmynR cvVvtZ ntj etji w`tK tmvRv AvmtZ nte| cvtqi cvZvi tfZtii I ci Ask w`tq etji gvSLvtb ev tctU mtRvti jww\_ gvitZ nte| th cv w`tq wKK Kite, tm cvtqi nuUz Ges tKvgi etji I ci Søk \_vKte| Ab¨ cv etji 17/18 tm:wg: (7/8 BwÂ) `ti còq tmvRvmynR Ae⁻′vb Kite| G wKKtk Bbt÷c wKK etj| ej D@zw`tq `ti cvVvtZ ntj tmvRv bv Gtm GKUz tKvbvKubfvte t`što Avmte Ges etji tctUi wbgofvtM AvNvZ Kite| cvtqi cvZvi AMôfvM m¤úY@nbgognL bv titL wKQUV tKvbvKynbfvte ivLte|

- L. fwj wKK : Ici w`tq ej `‡i cwVvevi Rb" ej gwWtZ covi c‡eB ev gwWtZ cto wKQWv Icti DVtj th wKK t`Iqv nq ZvtK fwj wKK etj |
- M. nvd fwj wKK : ej gwU‡Z covi ci¶‡YB lc‡i DV‡Z ïiyKivi mv‡\_ mv‡\_ †Rv‡i †h wKK Kiv nq, Zv‡K nvd fwj wKK e‡j | nvd fwj wKK Lpe †Rviv‡jv nq|
- N. wPc kU: Aí `‡ii m½xi Kv‡Q DPzw`ţq ej cvVvevi c×wZ‡K wPc kU eţj | hLb wbPzw`ţq ev Mwoţq wbR `ţji †Lţjvqvtoi Kv‡Q ej cvm Kiv m¤@ nq bv A\_P wec¶ `ţji †Lţjvqvo Øviv ej aţi †djvi m¤@ebv †ewk \_v‡K, ZLb G c×wZ Aej ¤^b Ki‡Z nq| `wovţbv Ae¯'v †\_‡K ev `y-GK cv `‡ †\_‡K Gţm cvţqi wfZi Ask w`ţq eţji †cţUi wbţPi Asţk wKK Ki‡Z nţe|
- 2. U\*wcs ev ej AvUKv‡bv :
- K. tmvj U\*wcs (cvtqi cvZvi Zjt`k w`tq ej \_vgvtbv) : cvtqi cvZvi AMÖrVM Ictii w`K Kti tMvowj gwU t\_tK 9/10 tm:wq: (3/4 BwÂ) Icti Ztj, AtbKUv BstiwR A¶i ÔV Õ Gi gtZv Kti ej \_vgvtbv|
- L. wkb U\*wcs (nuUi wb‡Pi Ask w`tq ej \_vgvtbv) : gwUtZ cov ej evDÝ Kti Icti IVvi mvt\_ mvt\_ nuUz fuR Kti mvgtbi w`tK wbtq Ges cvtqi cvZv wcQtb titL nuUi wbtPi Ask w`tq ej \_vgvtbv nte|
- M. \_vB U\*wcs (Eij mvnvth ej \_vgvtbv) : cÖq j ¤^fvte ev 75° t\_tK 85° DPz w`tq Avmv ej Diji I ci ati \_vgvtZ nq| ej Eiy úk Kivi mvt\_ mvt\_ ej mn nwUzwbtPi w`tK bwgtq AvbtZ nte|
- N. †nW U\*wcs (gv\_v w` tq ej \_vgvtbv) : j ×^ ev wZhRfvte Avmv ej Avt -Kti gv\_vq j wMtq etji MwZ Kwgtq w` tq hZ` i m×e ej wbtRi KvtQ gwUtZ †djv|
- 3. †nwWs : ej †nW Kivi mgg wb‡Pi welg įtivi cūZ j¶ ivL‡Z nţe :
- K. `wó eţj i w`‡K \_vKţe (†PvL KLţbv eÜ \_vKţe bv)|
- L. gv\_vi m¤§L As‡k Kcvj I P‡ji mwܯ′‡j ej jvM‡e|
- M. Nvo k³ †i‡L e‡j AvNvZ Ki‡Z n‡e|
- N. gv\_v Nwitq ej cvVvtbvi w`K cwieZ®

0. wcQtbi w`tK tnW Kivi mgq gv\_v m¤úY9cQb w`tK wbtq Kcvj w`tq tnW KitZ nte|

4. tMvj i¶v (tMvj wKwcs): dtJej tLjvq tMvj wKwcs LyeB ¸iyZcY\dip tMvji¶KtK tewki fvM mgq nvZ w`tq ej aitZ nq| Avevi mgq mgq cv w`tqI ej AvUKvtZ ev gvitZ nq| ZvB nvZ I cv w`tq gvivi I aivi KjvtKŠkj AekïB wktL wbtZ nte|

wewfb@vte Avmvej aivi c×wZ:



wbPzej aiv

K. wbPzej - mKj Ae-'vq eţji w`‡K `wó ivL‡Z nţe| wbPzej aivi Rb" m¤úY®t`n wVK eţji wcQ‡b ivLţe Ges nwUztmvRv tiţL kixi mvgţb Stk `ynvZ w`ţq ej Kwoţq wbţq eţKi KvţQ wbţq tbţe|

L. †Kvgi mgvb ej - †Kvgi mgvb ej ‡K eţj i jvB‡b `wotq ai‡Z nq| ej v aivi m‡½ m‡½B Zj‡cUUv‡K wfZ‡i i w`‡K wbţq ej Uv‡K †c‡Ui g‡a¨ XyvK‡q w`‡qB ` $\beta$  nvZ w`‡q ej k³ K‡i Rwotq ai‡Z nţe †hb ej Uv wQU‡K bv cţo|



kvi xwi K wk¶v I <sup>-</sup>\v<sup>-</sup>'" 51

M. DPzej - DPzej aivi Rb¨`ß nvZ mvg‡b ev Ic‡i ewwo‡q `ß nv‡Zi Zvjyev Av½ţji mvnv‡h¨ej a‡i eţKi Kv‡Q †U‡b Avbţe|



5. ej KvovKwo Kiv (ej UʻvKwjs): dtJej †Ljvq UʻvKwjs GKUv ¸inZcY<sup>©</sup>i ¶YvZ\K †Kskj | mvg‡b, wcQ‡b I cvk †\_‡K UʻvKwjs Kiv hvq | UʻvKwjs‡qi mgq †PvL AekʻB e‡ji Dci ivL‡Z n‡e | wec¶ hLb Zvi fvimvgʻi¶v Ki‡Z Amyeav †eva K‡i wVK †m gjLJZ\B UʻvKwjs Kiv †mvRv I myeavRbK | UʻvKwjs‡qi mgq hv‡Z wec³¼bK PvR®bv nq, †m w`‡K j¶ ivL‡Z n‡e |

KvR-1: dtJej †Ljvi Kjv‡KŠkj wk¶v\_#`i mvg‡b e"vL"v Ki‡eb| cvi`k₽wk¶v\_#K w`‡q gv‡V cÖk® Ki‡eb| wewfbœ`‡j fvM K‡i wk¶v\_#`i‡K gv‡V K‡i †`Lv‡Z ej‡eb| fyj cwijw¶Z n‡j ms‡kvab K‡i †`‡eb| wbqwgZ Abkxj‡bi civgk®`‡eb|

### cW-8: wu‡KU

#### AvBbKvbb :

1. †L‡j vqvo- 16 Rb †L‡j vqvo mgš^‡q GKwU `j MwVZ nq Ges GKRb Awabvq‡Ki Aax‡b cõiZ `j 11 Rb †L‡j vqvo wb‡q †Lj‡e| ÔUmÕ Gi Av‡M 11 Rb †L‡j vqvtoi bvg w`‡Z n‡e| Um n‡q †M‡j wec¶ Awabvq‡Ki m¤§wZ Qvov †L‡j vqvo e`j Ki v hv‡e bv|

- 2. cwieZ®- †Kvtbv †Ltjvqvo †Ljvi mgqKvjxb Amȳ' ev AvnZ ntq cotj wec¶ AwabvqtKi AbgwZ mvtct¶ Zvi cwietZ®GKRb bwgtq ïaywdwì s Kivtbv hvte| wKšyeïwUs I tewjs Kivtbv hvte bv|
- 3. Av¤úvqvi wbiţc¶Zv mnKvţi †Ljv‡K wbqšĮv ivLvi Rb¨ cůZ cůţš-GKRb Kţi `ĴRb Av¤úvqvi wbţqvM KiţZ nţe| qvţVi evBţi GKRb \_wW®Av¤úvqvi \_vKţeb|
- 4. † <vivi hZ ivb nţe Zv ţiKW<sup>©</sup>Kivi Dţİţk¨ ţ <vivi wbhy³ nţeb| Av¤úvqvi KZ¶K cÖË hveZxq wbţ`\R I msţKZ MbY Kţi wZwb ţm ţţvi cbuS ^xkvi Kiţeb|
- 5. ej ej Gi IRb (5 $^{1}$ /<sub>2</sub> AvDÝ) 155.9 Můţgi Kg I (5 $^{3}$ /<sub>4</sub> AvDÝ) 163 Můţgi ṭewk n‡e bv| Gi cwi wa 22.4 †mw>UwgUvi Gi Kg I 22.9 †mw>UwgUvi Gi ṭewk n‡e bv|
- 6. e"vU- e"v‡Ui cÖ' 10.8 †mwUwqUv‡ii †ewk n‡e bv Ges ^`N®96.5 †mwUwqUv‡ii †ewk n‡e bv|
- 7. wcP- wµ‡KU †Ljvi wcP ^` N© 20.12 wgUvi (22 MR) I cr 3.05 wgUvi (10 db) n‡q \_v‡K| mvaviYZ wc‡Pi †K>`an‡Z 50 †\_‡K 90 MR `i‡Z<sub>i</sub> mxgvbv Uvbv nq|
- 8. DB‡KU- cÖZ cÖţŠ-wZbwU Kţi DB‡KU ţcwZv \_vKţe|
- 9. tewnjs Ges cwcs wµR- DB‡K‡Ui mv‡\_ GKB ti Lvq tewnjs wµR n‡e hvi ^`N®2.64 wgUvi (8 db/8 BwÂ)| tewnjs wµ‡Ri mvg‡b 1.22 wgUvi (4 db/) mgvši+vj fv‡e Uvbv n‡e cwcs wµR|
- 10. wctPi ZËyeavb- cÖZ Bwbstmi ïiţZ 7 wgwbU Kti wcP tivj KitZ nte| wctPi Nvm eo \_vKtj tQtU wtz nte|
- 11. wcP Av"Qv`b I i¶Yv‡e¶Y- †Ljvïij Av‡M wcP †X‡K ivL‡Z n‡e| †Ljv PjvKvjxb mg‡q wcP XvKv hv‡e bv|
- 12. Bwbsm- cäZ `j 5 w`tbi tLjvq 2wU Kti Ges GK w`tbi tLjvq GKwU Kti Bwbsm ch@qutg tLjte| Bwbstmi wbe@Pb Um Øviv wba@i Z nte|
- 13. dtjv Ab- cwP w`tbi tLjvq th `j c<u>0</u>tg e vU Kti 200 ivtb, wZb ev Pvi w`tbi tLjvq 150 ivtb, `ß w`tbi tLjvq 100 ivtb Ges 1 w`tbi tLjvq 75 ivtb GwMtq \_vKtj c@Zc¶ `jtK dtjv-Ab KivtZ cvite|
- 14. wWKvtikb- †LjwU hZ w`tbi †nvK bv †Kb e`wUs `tji AwabvqK †Ljv Pjvi gta` †h‡Kvtbv mgq Bwbstmi mgwB †NvIYv KitZ cvite|
- 15. †Ljvïiy cồZ Bwbs‡mi Ges cồZ w`‡bi †LjviïiţZ Ges †h‡Kv‡bv weiwZi †k‡l †evjvi cồ‡š∔ Av¤úvqvi Ô†cÕ+†W‡K †LjvïiyKi‡eb|
- 16. weiwZ- Lvlqvi Rb" weiwZKvj 40 wgwbU, Pv weiwZi Rb" 20 wgwbU Ges `B Bwbs‡mi gv‡S 10 wgwbU|

kvi wi K wk $\P$ v I  $^{-1}$ v $^{-1}$  53

17. †Ljv mgwl3- cůZw`‡bi †Ljvi †k‡l Ges †Ljvi mgwl3‡Z Av¤úvqvi ÔUvBgÕ WvK‡eb, †mB mv‡\_ Dfq DB‡KU †\_‡K ÔtejÕ ¸‡jv DwV‡q †b‡eb|

- 18. †-<wis- ÔivbÕ -Gi Øviv †-<vţii wnmve Kiv nţe|
- 19. evDÊwi Bwbsm wbePtbi Rb Um Kivi AvtM Av¤úvqviiv Dfq `tji mvt\_ tLjvi evDÊwii e vcvti GKgZ nteb ej evDÊwi AwZµg Kitj Av¤úvqvi evDÊwii mstKZ t`teb ej evDÊwii jvBb AwZµg Kivi AvtM tKvtbv wdì vi ejwUtK ati DBtKU wKcvi ev tevjvtii wbKU tdiZ cvVvtbvi AvM ch®-e vUmg vb hZ tjv ivb tbte, tm tjvB ivb etj MY nte Ifvi t ev tKvtbv wdì g vtbi tQvovKZ KvtRi Rb evDÊwi ntj hZ tjv ivb AvtMB tbIqv ntqtQ Zvi mvt\_ evDÊwii Rb c to q ivb GKtî t </br>
- 20.  $j \div ej ej hw` KvhRix \PgZvi tgqv` _vKvKvtj LtR cvI qv bv hvq Zvntj th tKvtbv wdì g`vb 0j ÷ ej 0 WvKtZ cvtib | 0j ÷ ej 0 WvKv ntj t < vti 6 ivb thvM nte | wKšyt0j ÷ ej 0 WvKvi AvtM hw` 6 ivtbi tewk ivb tbI qv ntq _vtK Zte meKvU ivb t < vti thvM Kiv nte |$
- 21. djvdj th`tji tgvU ivb wect¶i tgvU ivtbi tPtq tewk nte, tm`jB Rqx nte| hw`ivb msL¨v mgvb \_vtK Ges Ab¨tKvtbv kZ®bv \_vtK Zte tLjwU AgxqvswmZ etj aiv nte|
- 22. Ifvi mvaviYZ 6wU etj GKwU Ifvi aiv nq| ej Mwotq mxgvbvi evBti tMtj 4 ivb I Dci w`tq mxgvbvi evBti tMtj 6 ivb thvM nq|
- 23. tWWej Av¤úvqvtii gtZ ej cvKvtcv³fvte DBtKU i¶K ev tevjvtii nvtZ Rgv cotj wKsev evDÊwi ntj A\_ev ejwU tKvtbv e"vUmg"vb ev Av¤úvqvtii tcvkvtKi gta" AvUtK tMtj ejwU tWW etj MY" nte|
- 24. tbv ej tKv‡bv e‡j tWwjfwi c×wZi ^eaZv m¤ú‡K®Av¤úvqvi mšyó bv n‡j wZwb Ôtbv ejŌ ms‡KZ †`‡eb|
- 25. IqvBW ej Av¤úvqv‡ii g‡Z, ej hw` e"vUmg"v‡bi bvMv‡ji evB‡i w`‡q hvq Zvn‡j wZwb ÔlqvBW ejŌ Gi ms‡KZ †`‡eb|
- 26. evB Ges tj MevB- ej hw` e"vUmg"v‡bi e"v‡Ui ev t`‡ni tKv\_vI ¯úk®bv K‡i AwZµg K‡i Ges tKv‡bv ivb msMnxZ nq Z‡e Av¤úvqvi ÔevBŐ Ges ej hw` e"vUmg"v‡bi e"vU ev‡` t`‡ni ev tcvkv‡Ki tKv‡bv Ask ¯úk®K‡i AwZµg K‡i I tKv‡bv ivb msMnxZ nq Z‡e Ôtj M evBŐ-Gi ms‡KZ t`‡eb|
- 27. Awwcj wdwi s`j KZK †Kv‡bv wKQzAwwcj bv Kiv n‡j Av¤úvqvi †Kv‡bv e¨vUmg¨vb‡K AvDU e‡j †NvIYv Ki‡eb bv|
- 28. Ôw` DB‡KU BR WvDbÕ- hw` ej ev eïvUmgïv‡bi eïvU ev †`‡ni ev †cvkv‡Ki Øviv Ô÷ïv¤úÕ-G AvNvZ †j‡M ÔtejÕ c‡o hvq, Z‡e DB‡KUwU WvDb wn‡m‡e MY¨ Kiv n‡e| GB Ae⁻′vq †Kv‡bv eïvUmgïvb‡K AvDU Ki‡Z n‡j GKwU ÷ïv¤ú DwV‡q ej nv‡Z wb‡q Avwcj Ki‡Z n‡e|
- 29. e vUmg vb AvDU Ae wnR MNDÊ MY nte hw` Zvi nvtZ aiv e vUwU ev Zvi t`tni tKvtbv Ask cwcs wµR jvBtbi wfZi w`tKi Rwg úk Kti bv \_vtK |
- 30. tevì AvDU- e vUmg vb Ôtevì Õ AvDU nţeb hw` tevjvţii KivejwUi AvMvţZ DBţKţUi ÔtejÕ cţo hvq

31. UvBgW AvDU- GKRb eʻvUmgʻvb AvDU nevi ci 3 wgwb‡Ui g‡aʻ Abʻ eʻvUmgʻvb‡K gv‡V bvg‡Z n‡e| hw` 3 wgwb‡Ui g‡aʻ †Kv‡bv eʻvUmgʻvb bv bv‡g Ges wec¶ `j KZ¶K Avwcj nq, ZLb Av¤úvqvi †mB eʻvUmgʻvb‡K AvDU e‡j †NvIYv Ki‡Z cv‡ib|

- 32. K"vP AvDU- ej wU e"v‡U †j‡M fwg ¯úk©Kivi Av‡MB †Kv‡bv wdì mg"vb hw` j‡d †bq Ges Ôwdì mg"vbÕ hw` c‡ivcyni gv‡Vi wfZ‡i \_v‡K Z‡e e"vUmg"vb ÔKU AvDUÕ n‡e|
- 33. Ôn v‡ÊjW ` v ej Dfq e vUmg v‡bi th tKD Ôn v‡ÊjW w` ej Õ AvDU n‡eb, hw` ej wU‡K Zvi KvhKix ¶gZvi tgqv` \_vKvKv‡ji g‡a nvZ w` ‡q ¯úk©K‡ib, Aek wec‡¶i Abţiv‡a GB KvR Ki‡j AvDU n‡eb bv|
- 34. wnU ``v ej †UvqvBm ej wU‡K GKevi AvNvZ Kivi ci B"QvKZfv‡e e`vUmg`vb hw` ej wU‡K c\pivq AvNvZ K‡i Ges wec¶ `j KZ¶ Avwcj nq Z‡e e`vUmg`vb AvDU n‡e|
- 35. wnU DB‡KU- ej †Lj‡Z wM‡q hw` e"vUmg"v‡bi e"vU ev †`‡ni †Kv‡bv Ask ¯úk®†j‡M DB‡KU †f‡O hvq, Z‡e ÔwnU DB‡KUÕ wn‡m‡e AvDU n‡e|
- 36. GjweWweD- Av¤úvqvi hw` g‡b K‡ib th tjM÷"v‡¤úi evB‡ii ej Qvov tKv‡bv ej e"vUmg"v‡bi cv‡q ev kix‡i cÑZnZ bv n‡j mivmwi ÷"v‡¤ú AvNvZ KiZ, Z‡e wZwb e"vUmg"vb‡K GjweWweD-wn‡m‡e AvDU K‡i w`teb|
- 37. Ae÷łKwUs w`wdì eïvUmgïvb hw`Dţİ kïc¢Yww`Z nţq Ôwdwì sÕ-G evav cÖ vb Kţi, Zţe ÔAe÷łKwUs w`wdì Õ ARmvţZ Av¤úvqvi eïvUmgïvbţK AvDU tNvI Yv Kiţeb|
- 38. ivb AvDU- ej †L‡j ivb †blqvi D‡Ï‡k" Dfq e"vUmg"vb †`Šo ï iyKi‡j cwcs wµ‡R †cĎQvi Av‡MB hw` wec¶ `j KZſK DB‡KU †f‡0 †`lqv nq Z‡e e"vUmg"vb AvDU n‡e|
- 39.  $\div$  "v=úW AvDU- e "vUmg"vb ej †Lj‡Z wM‡q hw` cwcs wµR †\_‡K †ewi‡q hvq, †m mgq wec¶ `j DB‡KU †f‡0 †`q Z‡e †m  $\hat{0}\div$  "v=úW AvDU $\hat{0}$  n‡e|
- 40. DB‡KU i¶K- tevjvtii tWwjfwi Kiv ej hZ¶Y bv DB‡KU AwZµg Kito, ZZ¶Y DB‡KU i¶K DB‡KtUi wcQtb \_vKte| tm DB‡KU AwZµg Kivi AvtM ej aitZ cvite bv|
- 41. wdì mg"vb † tni th‡Kv‡bv Ask w`tq wdì mg"vb ej \_vgv‡Z cv‡ib, wKšyB"QvceR hw` Ab" †Kv‡bv Dcv‡q \_vgvq, Zvn‡j B‡Zvg‡a" msMnxZ iv‡bi m‡½ 5 ivb hy³ n‡e|
- 42. wewam¤§Z Ges wewaewnfZ †Ljv- Dfq `ţji AwabvqK wewam¤§Z I wewaewnfZ †Ljvi Rb¨`vqx \_vKţe | Zţe Av¤úvqviB †Ljvi cëvb wePviK |

KvR-1: wµ‡KU †Ljvi gvV AsKb K‡i †L‡jvqvo‡`i Ae⁻′vb¸‡jv D‡j⊫Ki‡Z cvi‡e|

KvR-2 : Kx Kx Kvi‡Y GKRb e vUmg vb AvDU nq Zv wj‡L †`LvI |

55  $kvixwiKwk \P v I^{-1}v^{-1}$ 

### cW-9: Kjv‡KŠkj

wułKU †Ljvi †gśwjK Kjv-†KŚkj tjv‡K PviwU cławb fv‡M fvM Kiv hvg| †hgb : K. e~wus, L. †ewijs, M. wdwi s, N. DB‡KU wKwcs|

K. e'wUs: e'wUs wkLtZ ntj cotq e'vU aiv, cti e'vU wbtq wutR `wovtbv, e'vU tZvjv I ej qvivi wewfbœ Kvq`v wkL‡Z n‡e|

- 1. e vU aiv ev wMocs- KWvi aivi g‡Zv e v‡Ui nvZj ai‡Z n‡e| e"v‡Ui ÔVÕ Ges `nv‡Zi ÔVÕ A\_@ etov Av1/2y I Ab"vb" Av½ý wìtq aiv ÔVÕ cồq GKB jvB‡b \_vK‡e| nvZ `wU KvQvKwQ GKB m‡½ \_vK‡e|
- 2. `wov‡bv ev  $\div$  "v¤ú : cwcs wµ‡Ri`B cvtk `B cv mavšivifvte †i‡L mnR I ¯^v"Q\$>`~i mv‡\_ `wov‡Z nte| `B cvtqi Dci mgvb fi \_vKte| evg nvZUv ev Eiji Dci \_vK‡e| (evg-nwZ‡`i



t¶‡Î Wvb nvZ)| †Pv‡Li `wó e‡ji w`‡K \_vKţe| evg Kua tevjvţii w`‡K \_v‡K|

- 3. e vU wcQtb tZvjv : e wUstqi Rb wcQtb e vU tZvjv LyeB jiyZcY wcQtb e vU tZvjvi mgq wó etji w`tK Ges evq Kuta I KbB tevjvtii w`tK \_vKte| e vUwU tcQtb tmvRvmwR DBtKU t\_tK Icti ZitZ n‡e|
- 4. ej qviv ev †÷fK ej Avmvi aib e‡S GKRb e"vUmg"vb‡K wewfbœKvg`vq ej qvi‡Z ng| KL‡bv AvZ¥i¶vgjK Avevi KL‡bv AvµgYvZ¥K| mvg‡b GwM‡q wM‡q hLb AvZ¥i¶v gvi †`Iqv nq, ZLb Zv‡K dilqwW9wVtdwYf ++ OK etj | G mgq evg cv mvgtb hvq Ges gvtVi mvt\_ e vtUi Ae vb OV Gi gtZv nq|
  - tcQtb mti wMtq hLb ejwUtK AvZ\iq\nq;Kfvte tLjv nq, ZLb ZvtK e~vKIqwW\makeqWtd\foati +\delta K eti | G mgq Wvb cv tcQtb wbtq e"vtUi nvZj mvgtb Ges gv\_v tfZi w`tK Kti ej \_vgvtZ nq|
- 5. WiBf ev m‡Rv‡i AvµgYvZ¥K ej gviv- hLb cwcs wµ‡Ri tek mvg‡b GK cv GwM‡g w`‡g `‡i ej cvVvevi Rb" m‡Rv‡i qviv ng ZLb Zv‡K dilqwW9WBf e‡j|
- 6. Avevi wKQUv wcQtb Gtm hLb Abjefvte ej gvitZ nq, ZLb ZvtK e vKI qvW9Wbf etj |

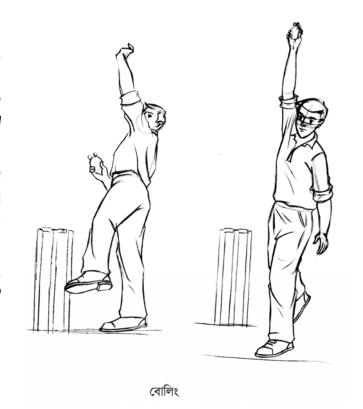
KvR-1: e vU aivi †KŠkj tjv cÖ k® Ki‡Z ejteb

KvR-2 : e vU † Zvj v I ej gvivi † KŠkj ‡ j v e vL v Ki |

### cW-10: tewis

ej Kivi mgq Aek"B j¶"-'j I `iZ‡K wbqš½ KtiB ej KitZ nq| mwVKfvte ej Kivi Rb" KZK¸tjv tgŠnjK †KŠkj iß KitZ nq| ZvntjB mntR ej KitZ cviv hvq| †KŠkj¸tjv wbtP eY®v Kiv ntjv -

- 1. ej aiv tewijs Kivi mgq ej Uv‡K me mg‡qB nv‡Zi Av½j¸‡jvi gv\_v w`‡q ai‡Z n‡e| ej KL‡bv nv‡Zi Zvj‡Z ivLv hv‡e bv|
- 2. ej wbtq t`što Avmv- KZUv `i t\_tK
  t`što Gtm ej Kiv DwPZ Zv wbf®
  Kite Kx iKtgi ej Kiv nte Zvi
  Ici| ej wbtq t`šovtbvi mgq kixtii
  fvimvg"tK LwbKUv mvgtbi w`tK I
  gv\_vUvtK w''i ivLtZ nte|



- 3. ej nvZ t\_tK tQto ej tQvovi AvtMi
  gyn‡Z©evg cvtqi Ici jvd w`tq kixiUvtK cvtki w`tK Nymitq wbtZ nte Ges mt½ mt½ Wvb cv-tK
  mvgtb wbtq thtZ nte| Wvb nvZ gytli KvQvKwQ Ges evg nvZUv tmvRv Ictii w`tK Ges `wó
  e¨vUmg¨vtbi Ici ivLtZ nte|
- 4. ej †Qvovi c`t¶c- ej †Qvovi c`t¶c ïiynlqvi mt½ mt½ mvgtbi cv-tK tewijs wKtRi mgvšivtj wbtq thtZ nte| evg Kvma e"vUmg"vtbi w`tK \_vKte| t`tni wcQbUv LwwbKUv evwKv \_vKte| ejmn Wvb nvZ DPtZ \_vKte|
- 5. AbymiY Kiv (dţjv \_) Wvb Kwa e vUmg vtbi w tK \_vKte | Wvb nvZ evu cvtqi cvk w tq tcQtb wbtq thtZ nte | ej tQvovi ci `wó etji w tK \_vKte |

#### wewfbæiKţqi tewis -

tewijs AtbK aitbi Kiv hvg| wbtP KtqK ciKvi mnR tewijstqi c×wZ eY®v Kiv ntjv:

- 1. dv ÷ tewjs dv ÷ tewjs ev `½ ej Kivi Rb¨ tevjvi‡K 10 †\_‡K 15 avc Zvi tewk `iZiwb‡q †Rv‡i †`\$‡o Avm‡Z n‡e| KviY `½ ej Kivi Rb¨ kw³i c¢qvRb| dv ÷ ej ¸W‡j‡š′ A\_A cwcs wK‡Ri 1.21 †\_‡K 1.22 wgUvi/MR Gi g‡a¨†dj‡Z nq|
- 2. Ad teK- GB tewjs G ej Uv‡K Ôe vUmg v‡bi Ō Wvb A\_A Atdi w`‡K td‡j tfZţii w`K Nyni‡q t`Iqv nq| ej Uv‡K tNviv‡bvi Rb Av½j ¸‡j vi mvnv‡h tgvPo w`‡q ej tdj‡Z n‡e| ej Kivi ci nv‡Zi Zvjy Dc‡ii w`‡K \_v‡K|

 $kvi wi K wk \P v I ^- v^-$  57

3. tj M teK- G mgq ej Uv‡K e "vUmg "v‡bi ev cv‡qi w `‡K td‡j Ad ÷ "v‡¤úi w `‡K wb‡q th‡Z nq| ej Kivi ci nv‡Zi Zvjywb‡Pi w `‡K hv‡e| G Qvov Bb mßs, AvDU mßs, Mwj, BqK@r cð TwZ Kvq `vi ej v Kiv hvq| †Zvgiv Dc‡ii Kv‡m D‡V G ¸‡jv wk‡L tb‡e|

- M. wdwi s-wdwi s wewfbofvte Ges gytVi wewfbofRvqMvq `wotq Kiv nq| GtK wZb fvtM fvM Kiv hvq|
- 1. i¶YvZ\K wdwi s- e"vUmg"v\tbi gviv ej th\tKv\tbvfv\te \_vgv\tbvB n\tijv i¶YvZ\K wdwi s\tqi KvR| e"vUmg"vbiv hv\tz tewk ivb wb\tiz bv cv\ti ev ej evD\tilde{E}wi n\tiz bv cv\ti, Zv e\tilde{U} Kivi Rb\tilde{B} gv\tiv ej \_vgv\tbv nq|
  - DPzw`tq Avmv ej aivi Rb¨ etji MwZi w`tKj¶ Ki| `B nvtZi ZvjytLvjv titL nvZ mvgtb GwMtq `vI Ges ej ati tUtb etKi KvtQ wbtq Gtmv| Zvntj nvtZ e \_v jwMte bv|
- 2. AvµgYvZ¥K wdwì s- ej \_vgv‡bvi mv‡\_ mv‡\_ KZ ZvovZwo †mUv DB‡KU wKcv‡ii ev `iKvig‡Zv Ab¨ wdì vi‡`i Kv‡Q †`Iqv hvq A\_ev DB‡K‡U jvMv‡bv hvq, †m †KŠkj Rvb‡Z n‡e| G Rb¨ `iKvi ej wb‡¶c Kivi wbc)YZv AR®| Kv‡Q ej wb‡¶‡ci Rb¨ AvÊvi n¨vÊ ev evÊ wb‡P wKsev cv‡k Swj‡q ej †`Iqvi Kvq`v wkL Ges `‡i ej w`‡Z n‡j I fvi Avg°ev evÊ Kv¢ai Dci w`‡q ej wb‡¶‡ci †KŠkj wk‡L bvI|
- 3. K`wPs- ej K`vP Kiv ev aiv K`wPstqi GKUv \_ijZcY©Ask| etji w`tK w'i `wó ivLtZ nte| tPvtLi jvBtb nvZ `tUv \_vKte Ges Av½j \_tjv tLvjv I chwiZ \_vKte| Kbß `tUv cvk t\_tK mvgtb Avmte| ej nvtZ Avmvi mvt\_ mvt\_B Av½j \_tjv eÜ Kti etKi KvtQ tUtb tbte|

DB‡KU wKwcs- DB‡KU wKcvţii `¶Zvi lci tLjvi nviwRZ A‡bKUv wbf® Kţi | DB‡KU i¶KţK `¶Zvi mt½ DB‡KţUi tcQtb cv dwK Kţi `ycvţqi Dci mgvb fvimvg" tiţL `wovţZ ev Aa@emvi fw½ţZ \_vKţZ nţe | †`nUvţK wbPz Kţi `wóţK DB‡KţUi Dcţii jvBţb ivLţZ nţe | evg cv ga" DB‡KţUi jvBţb \_vKţe | nvZ `ţUv cvkvcwk GKmţ½ Kţi Av½j ¸ţjvţK wbţPi w`ţK ivLţZ nq | `wó me mgq eţji w`ţK ivLţZ nţe |

KvR - 1 : †ewjs G¨vKk‡bi avc¸‡jv avivewnKfv‡e K‡i †`LvI | KvR - 2 : DB‡KU wKcv‡ii Ae⁻′vb¸‡jv gv‡V †`Lv‡Z ej‡eb|

### Abykxj bx

#### kb<sup>--</sup>′vb cɨY Ki:

- 1. GKRb e vUmg vb AvDU nI qvi ci bZb e vUmg vb ÑÑÑÑÑÑ wgwb‡Ui g‡a gv‡V Avm‡Z nq |
- 2. menogaÑÑÑÑRb †Lţivqvo nţi dbej †Ljv Avi ¤¢Kiv hvq|
- 3. †ewjs wµ‡Ri ^`N®ÑÑÑÑÑÑÑN
- 4. fwjej †Kv‡UP mwrfm AÂj ÑÑÑÑÑÑÑÑ wgUvi |
- 5. A v\_tj NUK U vtKi tj tbi msL v Kgct¶ ÑÑÑÑ KqNU?

### mwVK kã wgjvI :

1. †j vbv	1. dbej
2. A¨w₀Ubv	2. A¨v_‡j ₩JK·
3. kUcļu	3. D'P j vd
4. tewj tivj	4. KvewW
5. wPc kU	5. wµ‡KU
6. ciics iiµR	6. tMvj K wb‡¶c
7. j "wÊs A"v‡½j	7. fwjej

### tLjv Abhvqx c\_K Kti mvRvI :

K. tevbvm j vBb, L. wj ev $\pm i$  v, M.  $\div$  "WMW, $^{\odot}$  N. Rw $\approx$  ús vcU, 0. dm $\pm$ ewi d $\varepsilon$ , P. wmbMW $^{\odot}$ 

Q. DB‡KU, R. †jv nwW9kK, S. d‡jv Ab, T. n°v‡Êj W ` °v ej , U. \_vB U³wcs

### mwVK Dˇi wUK wPý`vI:

1. Avgv‡`i RvZxq †Ljv †KvbwU?

(K) dlJej (L) KvewW (M) `woqvevÜv (N) wu‡KU

2. KvewW †Ljvq GKwU `‡j KZRb †L‡j?

K. 5 Rb L. 6 Rb M. 7 Rb N. 8 Rb

3.  $\dagger KvbwU \uparrow`wk \dagger Ljv?$ 

(K) KvewW (L) dIJej (M) fwjej (N) tMvj veŁU

4. KZ mvj †\_‡K wekKvc dbej cnZ‡hwMZv ï iyntqtQ?

K. 1925 mvjM. 1930 mvjL. 1928 mvjN. 1932 mvj

#### msw¶ß ckæ:

- 1. G"wbUbv Kx?
- 2. ‡UK Ad †ev‡WP cwi gvc KZ?
- 3. tewj tivj Kx?
- 4. AdmvBW KvtK etj?

### iPbvg;Kckc

- 1. dbetj cŒ ¶ wd«wKK t`qvi KviY¸tjvwjL|
- 2. wµ‡KU †Ljvq GKRb e¨vUmg¨vb AvDU nIqvi c×wZ¸‡jv e¨vL¨v Ki|
- 3. fwjetj mwrfmdë¸tjvwetkHYKi|

mgvß



শিক্ষাই দেশকে দারিদ্র্যমুক্ত করতে পারে
- মাননীয় প্রধানমন্ত্রী শেখ হাসিনা

# বিদ্যা ও জ্ঞান অর্জন মানুষকে দায়িত্বশীল করে



২০১০ শিক্ষাবর্ষ থেকে সরকার কর্তৃক বিনামূল্যে বিতরণের জন্য

মুদ্রণে :